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2CAN011503

January 16, 2015

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: 35-Year Containment Building Tendon Surveillance and Concrete Inspection
Arkansas Nuclear One – Unit 2
Docket No. 50-368
License No. NPF-6

Dear Sir or Madam:

Entergy Operations, Inc. (Entergy) completed the Arkansas Nuclear One, Unit 2 (ANO-2) 35-Year Containment Building Tendon Surveillance and Concrete Inspection in accordance with American Society of Mechanical Engineers (ASME) Section XI, Article IWL-2000, as modified by 10 CFR 50.55a and the ANO-2 Technical Specifications (TSs). This inspection was completed on November 3, 2014, upon receipt of the inspection report. The scope of the inspection was limited to examinations of concrete containments covered under the rules of ASME, Section XI, Subsection IWL. Examination of the containment metallic liner and other Class MC components are accomplished under the rules of ASME, Section XI, Subsection IWE.

Based on the results of the tendon surveillance and concrete inspection, it was concluded that the ANO-2 Containment Building is currently capable of performing its design function and should remain capable of performing its design function until the next scheduled Containment Building Tendon Surveillance and Concrete Inspection (40-Year).

While no indications were found that challenged the current structural integrity or leak tightness of the containment, one indication was reported that requires evaluation under IWL-3300. ANO-2 TS 6.6.6, “Containment Inspection Report,” requires any degradation exceeding the acceptance criteria of the containment structure detected during the tests required by the Containment Tendon Surveillance Program shall undergo an engineering evaluation and the results be reported to the NRC within 30 days of the time the evaluation is completed. The evaluation was completed on December 31, 2014.

Attached is a summary of the evaluation of the one indication detected during the 35-year ANO-2 Containment Building Tendon Surveillance and Concrete Inspection. This completes the reporting requirements of ANO-2 TS 6.6.6.

This report contains no new regulatory commitments.

If you have any questions or require additional information, please contact me.

Sincerely,

ORIGINAL SIGNED BY STEPHENIE L. PYLE

SLP/rwc

Attachment: Results of Engineering Evaluation for the ANO-2 35-Year Containment Building Tendon Surveillance and Concrete Inspection

cc: Mr. Marc L. Dapas
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U. S. Nuclear Regulatory Commission
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ATTACHMENT TO

2CAN011503

RESULTS OF ENGINEERING EVALUATION FOR THE ANO-2 35-YEAR CONTAINMENT BUILDING TENDON SURVEILLANCE AND CONCRETE INSPECTION

RESULTS OF ENGINEERING EVALUATION FOR THE ANO-2 35-YEAR CONTAINMENT BUILDING TENDON SURVEILLANCE AND CONCRETE INSPECTION

Entergy Operations, Inc. (Entergy) completed the Arkansas Nuclear One, Unit 2 (ANO-2) 35-Year Containment Building Tendon Surveillance and Concrete Inspection in accordance with American Society of Mechanical Engineers (ASME) Section XI, Article IWL-2000, as modified by 10 CFR 50.55a and the ANO-2 Technical Specifications (TSs). This inspection was completed on November 3, 2014.

While no indications were found that challenged the current structural integrity or leak tightness of the containment, one indication was reported that requires evaluation under IWL-3300. ANO-2 TS 6.6.6, "Containment Inspection Report," requires any degradation exceeding the acceptance criteria of the containment structure detected during the tests required by the Containment Tendon Surveillance Program shall undergo an engineering evaluation and the results be reported to the NRC within 30 days of the time the evaluation is completed. The evaluation was completed on December 31, 2014. The indication and the results of the engineering evaluation are presented below.

Observable moisture was reported on Tendon V-050:

Article IWL-3221.3 states that the tendon anchorage areas are acceptable if (e) there is no evidence of free water. The inspection of the field end of Tendon V-050 revealed a small amount of free water (<1 ounce) on the end of the tendon and anchorage area. A water sample could not be obtained for testing due to the small amount observed. As a part of the surveillance inspection process, the corrosion protection medium was removed from the anchorage area and a sample was retained for testing. The results of the testing showed that water soluble chlorides, nitrates, and sulfides, as well as the water content and neutralization values were within the acceptable limits for the protection medium. The scheduled scope for the inspection of Tendon V-050 also included an anchorage inspection and a bearing plate concrete inspection, as well as a monitoring of the tendon force. The results of these visual and physical inspections showed the tendon to be acceptable, meeting all other acceptance criteria. The amount of moisture observed at the tendon is considered insignificant as defined in the ANO Containment Tendon Inspections procedure. The following definitions are given in the procedure.

> Observable Moisture – a quantity of water which has been immediately observed by the Inspector to be concentrated, collected, or draining out from the grease can or tendon anchorage assembly. This quantity could be present in quantities of less than 8 ounces and is considered to be a condition potentially attributable to water collected through condensation.
>
> Significant Moisture – a quantity of water 1/2 pint (8 ounces) or more which has collected, concentrated or observed to be draining out of the tendon anchorage assembly or grease can. This quantity is considered to be from a condition other than water formed through condensation.

Based on the fact that <1 ounce of free water was observed, and that the results of all other portions of the inspection were acceptable, it is concluded that Tendon V-050 is acceptable.

CAUSE OF CONDITION [IWL-3310(a)]

The most probable cause of the small accumulation of water is that it formed through condensation on the inside of the tendon can.

APPLICABILITY OF CONDITION TO THE OTHER UNIT [IWL-3310(b)]

ANO, Unit 1 (ANO-1), being of the same design and in the same environment, is susceptible to condensation forming in the tendon cans. Based on the results of the tendon surveillances to date, there is no known evidence that indicates that the presence of a small amount of moisture caused by condensation has an adverse effect on the tendon pre-stress system. The current required periodic tendon surveillances are considered sufficient to detect any adverse conditions or trends should they develop.

ACCEPTABILITY OF CONTAINMENT [IWL-3310(c)]

Based on the above evaluation, it is concluded that the presence of the free water had no negative affect on Tendon V-050, and the tendon has its full capacity to maintain the required post tensioned force. As a result, the containment is acceptable without further evaluation or repair/replacement activities.

REQUIREMENTS FOR REPAIR REPLACEMENT [IWL-3310(d)]

As discussed under the Acceptability of Containment section above, no repair or replacement activities are required.

ADDITIONAL EXAMINATION REQUIREMENTS [IWL-3310(e)]

No additional examinations are warranted for this condition.