

July 6, 2004

Mr. Jeffrey S. Forbes
Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
1448 S. R. 333
Russellville, AR 72801

SUBJECT: ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 - AUDIT OF THE LICENSEE'S
MANAGEMENT OF REGULATORY COMMITMENTS (TAC NOS. MC3115 AND
MC3116)

Dear Mr. Forbes:

An audit of the Entergy Operations, Inc. (EOI) commitment management program was performed at the Arkansas Nuclear One site on June 8 - 10, 2004. The NRC staff concludes that, based on the audit (1) EOI has implemented NRC commitments on a timely basis; and (2) EOI has implemented an effective program for managing NRC commitment changes. Details of the audit are set forth in the enclosed audit report.

The NRC staff appreciates the resources that were made available by your staff, both before and during the audit. If you have any questions, please have your staff contact us.

Sincerely,

/RA/

Thomas Alexion, Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

/RA/

Drew Holland, Project Manager, Section 1
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-313 and 50-368

Enclosure: Audit Report

cc w/encl: See next page

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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION (NRR)

REGULATORY COMMITMENTS MADE BY THE LICENSEE TO

THE NUCLEAR REGULATORY COMMISSION (NRC)

ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 (ANO-1 AND ANO-2)

DOCKET NOS. 50-313 AND 50-368

1.0 INTRODUCTION AND BACKGROUND

On May 27, 2003, the Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC," was published. LIC-105, which is publicly available electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the Internet at the NRC web site (Accession Number ML022750041), provides the NRC staff and its stakeholders with a common reference for handling regulatory commitments made by licensees for commercial nuclear reactors to the NRC staff. The guidance is consistent with the industry guidance prepared by the Nuclear Energy Institute (NEI), NEI 99-04, "Guidance for Managing NRC Commitment Changes."

According to LIC-105, which cites the definition from NEI 99-04, a "regulatory commitment" is an explicit statement to take a specific action agreed to, or volunteered by, a licensee and submitted in writing on the docket to the NRC. LIC-105 further directs the NRR Project Manager to "audit the licensee's commitment management program by assessing the adequacy of the licensee's implementation of a sample of commitments made to the NRC in past licensing actions (amendments, reliefs, exemptions, etc.) and activities (bulletins, generic letters, etc.)." The audit is to be performed every 3 years.

2.0 AUDIT SCOPE AND RESULTS

2.1 Audit Scope

The audit was performed at the ANO-1 and ANO-2 site on June 8 - 10, 2004. Since no such audit was performed before issuance of LIC-105, the NRC staff defined the period covered by this audit to go back approximately 3-4 years from the date of the audit.

LIC-105 limits the audit of commitments to those made in writing to the NRC as a result of past licensing actions (amendments, exemptions, etc.) or licensing activities (bulletins, generic letters, etc.). Prior to the audit, in order to generate a list of items for the audit, the NRC staff searched ADAMS for the licensee's licensing action and licensing activity submittals dated in the last 3-4 years. Then from this list, the NRC staff selected a representative sample of submittals to audit and asked the licensee to provide documentation to support the audit.

In addition, the NRC staff selected a sample of items from the licensee's most recent ANO-1 and ANO-2 Commitment Change Summary Report, dated June 11, 2003, and selected a

sample of additional items from a list of commitment changes performed since the June 11, 2003, report (which was provided by the licensee). The NRC staff again ensured that the sample selected related to licensee's licensing action and licensing activity submittals and asked the licensee to provide documentation to support the audit.

The licensee provided documentation to support the NRC staff's audit in each of the sample areas discussed above. The licensee's documentation included summary sheets providing the status of the commitment and appropriate backup documentation, as needed (i.e., plant procedures, examination records, and/or other plant documentation).

2.2 Verification of Licensee's Implementation of NRC Commitments

The primary focus of this part of the audit is to confirm that the licensee has implemented those commitments made to the NRC as part of past licensing actions/activities. For commitments that had not yet been implemented, the NRC staff aimed to ascertain that they have been captured in an effective program for future implementation.

The licensee enters commitments made to the NRC into a commitment database. As due dates in the database are approached, Licensing Information Requests (LIRs) are generated and sent out to the applicable organization. Responses to the LIRs are tracked to ensure that commitments are met.

The NRC staff reviewed documentation generated by the licensee related to items in the attached table that are categorized as ANO-1 Amendments, ANO-2 Amendments, ANO-1 and ANO-2 Amendments, Bulletin Responses, or Generic Letter Responses, to evaluate the status of completion. The NRC staff found that the licensee's commitment tracking program had captured all of the regulatory commitments and that all of the commitments were met or were on schedule.

2.3 Verification of the Licensee's Program for Managing NRC Commitment Changes

2.3.1 Change Control Procedure Verification

The NRC staff reviewed the licensee's procedure entitled "Commitment Management Program," LI-110, Revision 0, against NEI 99-04. Changes to a commitment are reviewed by licensing and by the organization that made the commitment.

The NRC staff found that the licensee's procedure is consistent with the guidance in NEI 99-04.

2.3.2 Procedure Implementation Assessment

2.3.2.1 Commitment Changes Reported to the NRC

The NRC staff reviewed documentation generated by the licensee related to items in the enclosed table that are categorized as Commitment Change. The NRC staff found that the licensee had properly addressed each regulatory commitment selected for this audit and that the licensee had implemented an effective program to manage commitment changes.

2.3.2.2 Commitment Changes Not Reported to the NRC

The licensee indicated that they report all commitment changes to the NRC; therefore, this section is not applicable.

2.3.2.3 Notifications to the NRC of Commitment Changes

The licensee indicated that they have not had any prompt notifications of commitment changes. Regarding periodic notification of commitment changes, the licensee routinely provides these reports. As indicated above, the last such report was submitted on June 11, 2003.

2.3.2.4 Traceability of Commitments

The licensee has a procedure titled, "Procedural Control" (1000.006). In Section 20, "Commitment Management," it states that all regulatory commitments shall be clearly identified in the reference section of the procedure(s) in which they are implemented, that text that implements the commitments in the body of the procedure shall be clearly identified so that individuals changing the procedure do not inadvertently alter or delete the regulatory commitment, and that when an entire procedure, supplement, attachment or form satisfies a commitment, the commitment number may be referenced in the scope or description section.

During the course of reviewing the licensee's commitments, the NRC staff found that the licensee's commitments were traceable as discussed above, except as noted below.

The NRC staff noted that when the licensee processes a commitment change evaluation form for deletion, the licensee closes the commitment in the commitment tracking system and the traceability discussed above is not included (or removed) from the implementing procedure, provided that the procedure is controlled by some other revision review process (i.e., 10 CFR 50.59). While the NRC staff agrees that the 10 CFR 50.59 evaluation process is an acceptable change process, there may be an isolated example of a commitment that is beyond the design basis of the plant. In this case, the NRC staff would advise that the licensee consider annotating the applicable portion of the procedure to indicate that, at one time, it was a commitment to the NRC. The NRC staff did not identify any examples during the audit that would benefit from retaining the annotation as discussed above.

3.0 CONCLUSION

The NRC staff concludes that, based on the above audit, (1) the licensee has implemented NRC commitments on a timely basis, and (2) the licensee had implemented an effective program to manage regulatory commitment changes.

4.0 LICENSEE PERSONNEL CONTACTED FOR THIS AUDIT

D. Boyd, S. Bennett, D. Bice, N. Mosher, and B. Short

Principal Contributors: T. Alexion
D. Holland

Date: July 6, 2004

COMMITMENT AUDIT AT ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 (ANO-1 AND ANO-2)
 PERFORMED JUNE 8 THROUGH JUNE 10, 2004

Category	Commitment Number	Description of Commitment
Commitment Change	P-324	Revise operating procedure to require master power hand switches be on.
Commitment Change	P-694	Component data base will be used to track the status of vendor manuals.
Commitment Change	P-695	Technical Manual System tracking of revisions, distribution, and applicability status of vendor manuals.
Commitment Change	P-697	Annual verbal inquiry of "key" safety related vendor manuals for manual update.
Commitment Change	P-4297	The diverse turbine trip under-voltage relays will be tested monthly by simulating a loss of voltage at the control element drive mechanism bus.
Commitment Change	P-4300	Diverse turbine trip circuitry on Unit 2 will be tested consistent with the electro-hydraulic control system surveillance, currently tested weekly.
Commitment Change	P-5000	Molded case circuit breakers installed after August 1, 1998, should be traceable to the circuit breaker manufacturer per Bulletin 88-10.
Commitment Change	P-6574	Procedure implemented requiring technical manuals to be stamped "master copy" and entered into document management system.
Commitment Change	P-10493	Provide independent verification of the position of Category E valves.
Commitment Change	P-11613	Inspection of the GE type AK-2 circuit breakers is performed every refueling outage.
Commitment Change	P-14827	Implement administrative controls to require the upward crane hoist control circuit be disabled via a keylock switch during horizontal movement.
Commitment Change	P-15050	Height of multi-assembly sealed basket transfer cask (MTC) is limited by use of three inch thick impact pad attached to MTC and by limiting cask height to maximum of nine inches above floor.

Category	Commitment Number	Description of Commitment
Commitment Change	P-15176	Monitor spent fuel pool silica levels and perform silica evaluation based on Electric Power Research Institute racklife system or its equivalent.
Commitment Change	P-15484	Revise procedure 1032.014 to include the requirement that the monthly operating report include challenges for low-temperature overpressure protection relief valves and electromatic relief valve.
Commitment Change	P-15550	Revise surveillane procedures to perform testing of engineered safety features logic functions (resulting from Generic Letter 96-01 reviews) prior to next use.
Commitment Change	A-17956	Inspect 26 separate locations every 2 years in accordance with the service water integrity program.
Commitment Change	P-4959	Motor operated valve testing program to comply with Generic Letter 89-10 recommendations. Scope of program to be increased.
Commitment Change	P-6768	Procedures state maintenance and testing activities adhere to Technical Specifications.
Commitment Change	P-10106	Review and revise administrative controls as necessary regarding operator performance.
Commitment Change	P-11015	Inspect for potential debris plugging of emergency core cooling suction strainers.
ANO-1 and ANO-2 Amendments	A-16525	Test or replace charcoal samples in accordance with ASTM D3803-1989.
ANO-1 and ANO-2 Amendments	A-17180	Define inservice testing requirements for valves allowing ANO-2 to align to the Qualified Condensate Storage Tank.
ANO-1 and ANO-2 Amendments	P-17669	Establish administrative controls to assure crane minimum operating temperature while operating with the main hoist will be 65 degrees F.
ANO-1 and ANO-2 Amendments	A-17670	Perform additional surface magnetic particle inspection of the critical welds associated with end trucks to the box girder consistent with AWS D1.1

Category	Commitment Number	Description of Commitment
ANO-1 and ANO-2 Amendments	P-17801	Update appropriate L-3 crane maintenance procedures based on Ederer maintenance guidance and preventative maintenance template from engineering programs. [The revised L-3 crane operation procedure (1402.133) was already referenced in P-17669.]
ANO-1 and ANO-2 Amendments	P-17802	Prepare the template for maintenance actions associated with the L-3 crane for revising the L-3 preventative maintenance procedures on the L-3 crane.
ANO-1 and ANO-2 Amendments	A-17657	Establish administrative controls to prevent loading a hi-storm cask with more than 24 assemblies without performing additional analysis (L-3 crane).
ANO-1 Amendment	R-17183	Following each inservice inspection of steam generator tubes but prior to returning steam generator to service, Entergy will verbally notify the NRC of: (a) indication of circumferential cracking inboard of the roll repair, (b) indication of circumferential cracking in the original roll or heat affected zone, and (c) determination of best estimate total leakage.
ANO-1 Amendment	A-17184*	Submit a summary of the evaluation, within 3 months, that demonstrates the primary-to-secondary leakage following completion of steam generator tube inservice inspection with the report required by Technical Specification 4.18.6.
ANO-1 Amendment	Bases pages issued with amendment.	Establish the Technical Specification Bases for Surveillance Requirement 3.0.3 as adopted with the applicable license amendment (03/13/02 letter).
ANO-2 Amendments	P-17334	Modify procedures to reflect hydraulic response time testing prior to installing any new pressure sensor or following maintenance that might affect sensor response time.
ANO-2 Amendments	A-17376	Replace low temperature over pressure (LTOP) relief valve bellows in accordance with LTOP submittal.

Category	Commitment Number	Description of Commitment
ANO-2 Amendments	A-17251	Revise safety analysis report (SAR) to reflect heat exchanger heat removal capacity graph and power uprate maximum decay heat load and fuel pool system changes.
ANO-2 Amendments	A-17256	Revise the emergency procedures to incorporate new set point values prior to implementation for power uprate.
ANO-2 Amendments	A-17257	Revise applicable procedures that contain trigger points relative to heat up.
ANO-2 Amendments	P-17400	Establish and maintain a control room in leakage limit of less than 61 standard cubic feet per minute.
ANO-2 Amendments	A-17504	Establish the Technical Specification (TS) Bases for Surveillance Requirement 4.0.3 as adopted with the applicable licensing amendment (Amd.).
ANO-2 Amendments	P-17783	Revise operating procedures associated with TS Amd. 249 - emergency diesel generator allowed outage time (AOT).
ANO-2 Amendments	P-17758	Update the SAR to reflect no credit for Boraflex.
ANO-2 Amendments	P-17760	Conditions required prior to entry into a low pressure safety injection AOT longer than 72 hours.
ANO-2 Amendments	A-17974	Implement TS Amd. 253 re: TS 3.4.9.2 - pressurizer heatup and cooldown limits transferred to technical requirements manual (TRM).
ANO-2 Amendments	A-17252	Power Uprate - Revise the fuel bundle thermal hydraulic analysis of record to assume 38.10 MBTU/hr.
ANO-2 Amendments	A-17377	Revise pressure/temperature limits and LTOP limits for 32 effective full power years (EFPY) - provide further clarification in the ANO-2 heat up and cooldown procedures upon replacement of the relief valve bellows to assure 2 high pressure safety injection (HPSI) pumps are in pull-to-lock while LTOP conditions are enabled and assure that the pressurizer water volume is less than 910 cubic feet when starting a reactor coolant pump.

Category	Commitment Number	Description of Commitment
ANO-2 Amendments	A-17375	Instrument uncertainty for the new pressure/temperature limits in TS figures 3.4-2A, 3.4-2B, and 3.4-2C, need to be added in the figures contained in station procedures.
Bulletin Responses	A-17335	The licensee will perform a qualified visual examination of essentially 100% of the upper surface of the reactor vessel head during 1R17 and contingency plans and preparations will be made for volumetric examinations if necessary.
Bulletin Responses	A-17336	Heatup Restraint - The visual inspection to be performed during 1R17 will be performed by personnel of multiple site disciplines including those groups who performed the inspections at 1R16. These personnel will include a VT-2 inspector who is knowledgeable in the detection and discrimination of leakage.
Bulletin Responses	A-17286	Submit response to U. S. Nuclear Regulatory Commission (NRC) Bulletin item 5 regarding information related to the structural integrity of the RPV head penetration nozzles within 30 days after restart.
Bulletin Responses	A-17379	Perform a 100% inspection of all ANO-2 vessel head penetration nozzles which will include an examination of essentially 360 degrees around the nozzle including the vent nozzle.
Bulletin Responses	A-17619	Notify the NRC staff of any further inspection plans to address the Framatome recommendation for performing bare metal inspections of the incore instrument (ICI) nozzle penetrations.
Bulletin Responses	A-17797	Develop, schedule and conduct training to recognize and respond to sump clogging including identifications of indications, possible responses, emergency operating procedures (EOPs), and severe accident management guidelines (SAMG) instructions for responding to sump clogging.- aspects related to operator training. (ANO-1)

Category	Commitment Number	Description of Commitment
Bulletin Responses	A-17798	Develop, schedule and conduct training to recognize and respond to sump clogging including identifications of indications, possible responses, emergency operating procedures (EOPs), and severe accident management guidelines (SAMG) instructions for responding to sump clogging.- aspects related to operator training. (ANO-2)
Bulletin Responses	A-17792	Provide EP the information to revise the SAMG to more adequately address alternative water sources to refill the borated water storage tank (BWST) or to otherwise provide inventory to inject into the reactor core and spray into containment.
Bulletin Responses	A-17793	Provide Emergency Preparedness (EP) the information to revise the SAMGs to more adequately address alternative water sources to refill the RWT or to otherwise provide inventory to inject into the reactor core and spray into containment.
Bulletin Responses	P-17794	Revise ANO-1&2 SAMGs to enhance the use of alternative water source.
Bulletin Responses	P-17795	Revise procedure to include verification of hydraulic communication with the sump so that water is free to flow from the drains to the sump. (ANO-1)
Bulletin Responses	P-17796	Revise procedure to include verification of hydraulic communication with the sump so that water is free to flow from the drains to the sump. (ANO-2)
Bulletin Responses	A-17948	Perform an inspection of the ANO-1 ICI nozzles as described in the reactor pressure vessel (RPV) lower head penetration inspection program.
Bulletin Responses	A-17949	Provide scope and approach for future ICI nozzle inspections (beyond 1R18) which will consider lessons learned from the 1R18 refueling outage inspection and other inspections conducted within the industry prior to 1R19 refueling outage.
Bulletin Responses	A-17950	Submit a summary report of the findings of the RPV head inspections within 60 days after restart from the 1R18 refueling outage.
Generic Letter Responses	A-16313	GL 96-06 - Prepare a design change package to modify the 18 ANO-1 penetrations susceptible to overpressurization.

Category	Commitment Number	Description of Commitment
Generic Letter Responses	A-16314	GL 96-06 - Prepare a design change package to modify the 10 ANO-2 penetrations susceptible to overpressurization.
Generic Letter Responses	A-16940	Resolution of Generic Letter (GL) 95-07 - Perform reevaluation and complete calculations on the valves using the NRC accepted pressure locking method to demonstrate operability.
Generic Letter Responses	A-16941	Complete any modifications related to pressure locking and thermal binding, if required on the ANO-1 valves due to test results.
Generic Letter Responses	A-16942	Complete any modifications, if required, on the ANO-2 valves due to test results.
Generic Letter Responses	A-17825	Submit TS changes for both ANO units meeting the intent of Technical Specification Task Force (TSTF)-448 regarding control room habitability.
Generic Letter Responses	A-17824	Provide information necessary for submittal of the maximum hypothetical accident (MHA), fuel handling accident (FHA) and control room emergency airconditioning (CREA) calculations for ANO-1 using the guidance of Regulatory Guide (RG) 1.195 to derive a limiting unfiltered in-leakage into the control room envelope (CRE) to meet the control room dose acceptance criteria without reliance on potassium iodide (KI) administration.

Notes: A - active commitment (one-time only)

P - passive commitment (i.e., in a procedure)

R - recurring commitment (i.e., periodic report)

* - the details of this report were under NRC review before the audit;
it is still under review

Arkansas Nuclear One

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