

November 15, 1999

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FACILITY: Entergy Operations, Inc.

LICENSEE: Arkansas Nuclear One, Unit Nos. 1 and 2

SUBJECT: ARKANSAS NUCLEAR ONE , UNIT NOS. 1 AND 2 RE: SUMMARY OF NOVEMBER 2, 1999, MEETING WITH ENTERGY OPERATIONS INC.

On November 2, 1999, representatives of the U. S. Nuclear Regulatory Commission (NRC) and Entergy Operations, Inc. (the licensee), met to discuss recent performance in the licensing area and the schedule of future licensing activities at Arkansas Nuclear One, Unit Nos. 1 and 2 (ANO-1, ANO-2). This meeting was held at NRC Headquarters in Rockville, Maryland. A notice of this meeting was issued on October 20, 1999. Enclosure 1 is a list of attendees. Enclosures 2 and 3 are the licensee's handouts used during the meeting.

The NRC and the licensee discussed successes and lessons learned from efforts related to the most recent refueling outage for ANO-1. The NRC issued Amendment No. 202 to Facility Operating License No. DPR-51 for ANO-1 on October 4, 1999. The cover letter forwarding this amendment identified negative trends in the areas of scheduling and technical adequacy for recent licensing correspondence. The licensee discussed the results of their root cause investigation and described some of the corrective actions that they have identified. Enclosure 2 provides a summary of the licensing actions in question. The NRC provided additional feedback and clarification on issues regarding the technical adequacy of these submittals.

The licensee discussed their schedule for the major licensing initiatives that they plan to submit to the NRC in the near future. These plans include license renewal, improved technical specifications, and various steam generator degradation management methods for ANO-1 along with steam generator replacement and power uprate for ANO-2. Enclosure 3 provides a summary of planned submittals.

ORIGINAL SIGNED BY

M. Christopher Nolan, Project Manager, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-313 and 50-368
Enclosures: As stated (3)
cc w/encls: See next page

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Arkansas Nuclear One

cc:

Executive Vice President
& Chief Operating Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, MS 39286-1995

Vice President, Operations Support
Entergy Operations, Inc.
P. O. Box 31995
Jackson, MS 39286-1995

Director, Division of Radiation
Control and Emergency Management
Arkansas Department of Health
4815 West Markham Street, Slot 30
Little Rock, AR 72205-3867

Wise, Carter, Child & Caraway
P. O. Box 651
Jackson, MS 39205

Winston & Strawn
1400 L Street, N.W.
Washington, DC 20005-3502

Manager, Rockville Nuclear Licensing
Framatone Technologies
1700 Rockville Pike, Suite 525
Rockville, MD 20852

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 310
London, AR 72847

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

County Judge of Pope County
Pope County Courthouse
Russellville, AR 72801

ATTENDANCE LIST

PUBLIC MEETING HELD NOVEMBER 2, 1999

<u>Name</u>	<u>Organization</u>	<u>Telephone No.</u>
Chris Nolan	NRC/NRR	301-415-1320
Bob Gramm	NRC/NRR	301-415-1302
Stuart Richards	NRC/NRR	301-415-1395
Dale James	Entergy Operations, Inc.	501-858-4619
Jim Vandergrift	Entergy Operations, Inc.	501-858-4601
Steve Bennett	Entergy Operations, Inc.	501-858-4626

Enclosure 1

ANO-1 1R15 Related Licensing Actions in Perspective

(1R15 Outage Start Date: September 10, 1999)

Submittal Topic	Initial Submittal Date	Follow-up Submt'ls	NRC Approval Date	ANO Dept/ Lic. Lead	Comments/Perspective
Risk Informed ISI (Partial Scope for B-J welds)	6/3/98 (15 mo. prior to outage)	5/17/99	8/29/99	Eng Prog/ J Dosa	NRC did not discuss in their 10/4/99 cover letter. Initial submittal was 15 months ahead of outage. One set of RAIs issued with no follow-up concerns. No technical or timing issues.
IWL Relief on Minimum Illumination	4/1/99 (5+ mo. prior to outage)	None	5/11/99	MCS/ S Bennett	Relief had just been previously granted elsewhere. NRC approval in 1+ months. No technical or actual timing issues. ANO-1 NRC PM performed review.
IWL Relief on VT-2 Inspections	4/1/99 (5+ mo. prior to outage)	None	6/2/99	MCS/ S Bennett	Relief had just been previously granted elsewhere. NRC approval in 2 months. No technical or actual timing issues. ANO-1 NRC PM performed review.
Battery Surveillance TSCR	4/9/99 (5 mo. prior to outage)	7/29/99	9/14/99	SYE/ C Szabo	An initial battery surveillance TSCR was submitted in May 1996 which was withdrawn based on multiple developing desired changes by the NRC. The April 1999 submittal met the NRC requested actions. ANO was requested to supplement response with change that was not based in RSTS (ΔT of cells). Other editorial changes made/no major technical issues.
IWL TSCR for Containment Inspections	4/9/99 (5 mo. prior to outage)	7/14/99	9/9/99	MCS/ D. Bice	No technical issues. Only change was a TS change that added acceptance criteria per IWL/10CFR50.54a for NRC reporting, if not met. Timing issue only/ANO resource restraints.

SG Outer Diameter Intergranular Attack	5/14/99 (3.5 mo. prior to outage)	9/7/99/ 9/15/99 9/17/99	10/4/99	Eng Prog/ J Dosa	Initial submittal was late due to time lost in 1998 by FTI initial approach being modified. Significant discussion on approach of submittal from both parties. Multiple submittals resulted. NRC does not consider current methodology and analytical model acceptable for determining degradation. Resulted in 2 nd one cycle TS Amendment. Reviewer changed prior to SE completion, which raised newly identified concerns.
SG Tube End Cracking TSCR	6/1/99 (3 mo. prior to outage)	7/29/99 8/19/99	9/14/99	Eng Prog/ J Dosa	The TEC Topical Report was not completed until April 1999. Crystal River provided the lead submittal on May 5, 1999, which included the FTI Topical Report. The ANO specific Addendum to the report was provided on 7/29 and one round of questions were raised. There were no major NRR technical concerns with the submittal or approach. The TS pages were modified. NRC approved a permanent TS in 3.5 months. Timing issue only.
SG Re-Roll TSCR	9/19/99 (emergent)	None	withdrawn	Eng Prog/ S Bennett	Issue culminated just prior to outage. ANO was compelled to address FTI letter expeditiously. Addressing issue by 50.59 was considered legally acceptable and mutually beneficial. Some initial time lost in establishing appropriate approach and technical details. NRC ultimate review/noticing time was shortened and was not within projected HU window.
LPI Pump Casing Repair	9/26/99 (emergent)	None	9/29/99 (verbal)	MCS/ S Bennett	ANO underwent significant effort to perform Code repairs. Relief was determined to be only option for resolution. No technical concerns with NRR. However, timing did not provide NRC much time to address and formulate conclusion.

Proposed ANO Submittals

ANO/NRC Licensing Activities Meeting - Nov. 2, 1999

2R14 - 12 Month Replacement SG Target Submittals

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
ANO-2 RSG Containment Uprate	MCS/ NED	D. Boyd	Nov 1999 (1.5 months behind schedule)	Submittal is in final review. This change addresses the addition of a CSAS signal to shutoff feed flow and to uprate the containment from 54 to 59 psig. A meeting with the NRC to discuss changes is being proposed for Nov. 9, 1999.
ANO-2 RSG Setpoint Changes	MCS/ EIC	D. Bice	Nov 1999 (2 months behind schedule)	Submittal is in development and should be issued for review the week of Nov 1. Several Design inputs are still required for package (currently critical path). Currently proposing to break out the High level SG trip in separate submittal. Nov. 16 schedule is planned if supporting details are available. Further meeting with NRC will be proposed in Nov/Dec 1999 to discuss this and other RSG changes.
ANO-2 RSG High Level Trip	MCS/ EIC	D. Bice	Dec 1999 (2+ months behind schedule)	ANO intends to request that this RPS setpoint be removed from the TS and placed in the TRM since it is an overflow issue not a RPS setpoint. This setpoint is still in development. Removing this setpoint from the TS is not per the current standard TS and will require justification.

Other 2R14 - 6 to 9 Month Submittals

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
ANO-2 Shutdown Cooling Flow for Instr. Uncertainty	NED	D Millar	March 2000	This submittal should be into the NRC at least 6 months prior to 2R14 or NLT March 15, 2000. NED needs to perform analysis for instrument uncertainty for 2000 gpm. ANO is currently controlling this TS by administrative control.
Revise ANO-2 Core Alteration Definition	LIC	N Mosher	Feb 2000	During 2R13 the current Core Alterations definitions did not allow any reactivity change if there were any neutron detectors OOS. This caused delays and regulatory concerns that can be avoided by using the RSTS definition. Within Licensing for action. This submittal should be into the NRC at least 6 months prior to 2R14 or NLT March 15, 2000.
Reactor Vessel Specimen Pull Frequency	NED	D Millar	March 2000	The current RPV P-T analysis is based on a specimen pull of only 2+ EFPY. The TS needs to be changed to allow an early specimen pull to better calculate the RPV EFPY P-T curves. This submittal should be into the NRC at least 6 months prior to 2R14 or NLT March 15, 2000.
ANO-2 CREVS Operability during Fuel Movement	U2 Outages	D. Bice	Feb 2000	The current TS require that 2 trains of CREVS be operable during fuel movement. This will cause a delay in the scheduling activities in 2R14 and subsequent outages. There is no clear change that has been identified at this time that can overturn the TS. Further Action is needed to scope options. May require modification to power supplies. This submittal should be into the NRC at least 6 months prior to 2R14 or NLT March 15, 2000.
IWL Containment Inspection Program (pending)	MCS	TBD	TBD	The ANO-2 containment inspection program is acceptable under the current TS and IWL allowances. Additional actions may need to be performed for containment uprate at 2R14. A submittal would need to be into the NRC at least 6 months prior to 2R14 or NLT March 15, 2000.
ANO-2 EDG AOT Extension	NED	TBD	TBD	ANO had previously submitted an ANO-2 EDG AOT extension based on risk. However, ANO did not have a CRMP in place to meet the NRC's expectations for granting a TS change. This is a fairly high priority for ANO-2 outages.
ANO-2/-1 IWE Relief Requests for 2R14 Inspection	Eng Programs	Corp	March 2000	8 to 10 relief requests for application of new ASME IWE requirements. These have already been approved for Brunswick or Oconee.

ANO-1 License Renewal Submittal

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
ANO-1 License Renewal Application (LRA)	MCS	N Mosher	Dec 1999	LRA is targeted to go out for internal review in early November. Plan to submit in early December, but no later than December 13 because of a meeting with NRR on December 15 (will travel on December 14). Comment resolution, if extensive, may become critical path for the December submittal. To be discussed at November 4, 1999 NRC Regional Meeting and December 15, 1999 NRR meeting.
☛ Aging Management Reports (AMRs)	MCS/EIC	N Mosher	--	AMRs are scheduled to be completed by mid-November. Class 1 and upper level reports are in development. Should not be a schedule concern at this time.
☛ Aging Management Programs/Activities	MCS	N Mosher	--	There will be several new aging management programs and activities that need to be developed. There will probably be some holes in the program section in the draft LRA that goes out for review in early November. This may be critical path for timely LRA submittal. Target is to finalize by mid-November.
☛ Environmental Report (ER)	Corp. Environ	N Mosher	--	Two outstanding issues. Doing environmental justice review out to 50-mile radius (should be complete by early November). Transmission lines (161 kV) require further addressing. ER comments more substantial than previously expected.
☛ Severe Accident Management Assessment (SAMA)	Corp. Safety Analysis	N Mosher	--	The SAMAs are part of the ER and are in development and are scheduled to be complete by the end of November. Will only allow limited review time in LRA submittal.

ANO-1 Improved TS Related Submittals

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
ANO-1 Improved TS Package	ANO-1 Ops	C Szabo	12/10/99	ANO has developed the base ITS package and is finalizing comment resolution. The project lead is leaving at or about the target date for submittal and a replacement will need to be assigned. The project lead continuity is of concern to Entergy and the NRC Staff. Even though the submittal is targeted to go in to the NRC in Dec 1999, future ANO response effort is critical. A meeting is scheduled for November 30, 1999 to discuss the project with the NRC.
ANO-1/2 Technical Change On QCST Level	U-1 Ops/ MCS	J Burford	11/30/99	A QCST level change submittal is required to provide clarity as to the required volume for minimum tank level for EFW. This is a technical change that must go into the staff on or before the ANO-1 ITS submittal. In development.

ANO-2 ASME Interval (March 26, 2000) - 6 Month Submittals

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
ANO-2 Inservice Testing Program and Reliefs	Eng. Programs	J Dosa	Nov 1999 (2 months overdue)	This submittal is required to obtain relief requests for the ANO-2 IST program which will become effective on March 26, 2000. The NRC needs a minimum of 6 months to review relief requests. The IST program is based on continuous quarterly surveillances and should consider March 26 as the required need date. We are currently 5 months before the effective date for the new ASME Code edition. Licensing has the submittal input and is critical path due to other workload activities.
ANO-2 Inservice Inspection Program and Reliefs	Eng Programs	J Dosa	March 2000	This submittal is required to obtain relief requests for the ANO-2 ISI program which will become effective on March 26, 2000. The NRC needs a minimum of 6 months to review relief requests. Engineering Programs has not completed the submittal input and is critical path due to other work load issues. Since the ISI program is performed during outages (or can be deferred within a Period), any relief requests will need to be requested by March 15, 2000 for 2R14 in Sept.

Known 1R16 - 9 Month Submittals

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
Permanent Change for Outer Diameter Intergranular Attack TSCR	Eng Programs	J Dosa	May 2000	The 1R16 steam generator related TS changes should be into NRC for review 9 to 12 months ahead of the outage. The NRC Staff is not willing to grant further Cycle specific relief for this ARC and wants a different methodology approach. Highly sensitive per 1R15 SE discussion. This change should be to the NRC for review by April-May 2000. This TSCR may be cancelled based on the approval of the re-roll and risk informed TSCRs below. An NRC meeting is being proposed for January 2000 to discuss all ANO-1 steam generator related submittals.
Existing Re-roll Justification with Joint Slippage	Eng Programs	S Bennett	Feb 2000	The 1R16 steam generator related TS changes should be into NRC for review 9 to 12 months ahead of the outage. The NRC Staff is expecting Addendum B to the re-roll topical report to come in early 2000. The topical is in near final development.
Re-roll Optimization Repair TSCR	Eng Programs	S Bennett	April 2000	The 1R16 steam generator related TS changes should be into NRC for review 9 to 12 months ahead of the outage. This change will include multiple re-rolls and lower tubesheet re-rolls. This change should be to the NRC for review by April 2000.
Risk Informed SG Examinations TSCR	Eng Programs	Corp. Lic.	April 2000	This will be a new approach to resolving low safety SG inspections issues without further action. However, this change is risk based and is likely to require multi-branch review. This change should be to the NRC for review by April 2000. May not be specifically required for 1R16 outage.

Other Near Term High Priority Submittals

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
ANO-1 3 rd Ten Year Interval Inservice Testing	Eng Programs	J Dosa	Submitted on 10/29/99	The NRC granted interim relief in Oct 1998 for relief requests given that ANO followed up on open issues within 1 year. The response is due in Oct 1999.
Laboratory Testing of Charcoal Filters	Eng Programs	Davant / S. Pyle	Nov. 1999	This is a result of GL 99-02 and is a Pri 1 action. A draft has been developed by Corporate Licensing for a four-site submittal. Additional input and verification of input is required, but should go to the NRC on time.
ANO-2 SG Operational Assessment RAIs (2 submittals)	Eng Programs	J. Dosa	11/5/99 & 12/10/99	This involves two planned submittals to an RAI response for the ANO-2 2R14 SG operational assessment. Eng Prog. is developing responses and is on- schedule.
ISP Program Changes	Security	M Cooper	Dec 1999	Changes to the ANO Industrial Security Plan are being made on the reporting chain and the secondary guard station. This change is required to be in within 60 days of implementation. Schedule should be met without delay.
ANO Risk Informed Part 50 Pilot Program	NED/ ANO VP	S Bennett	TBD	ANO has been considered a pilot in the NEI Risk Informed 10CFR50 rule change pilot program. This requires significant Nuclear Engineering and Licensing support. Participation in this program is with ANO and EOI management decision. Additional resources would have to applied to ensure adequate support is provided.
ANO-1/2 Startup #2 Transformer Maintenance TSCR	EIC	D Bice	Dec 1999	ANO is not able to perform maintenance on the SU#2 transformer without the entrance of an LCO for both units or the simultaneous shutdown of both units for an extended period. A TSCR has been drafted and is in review to allow a 30 day LCO for both TSs. NRC call has been conducted to get NRR input on potential concerns. This submittal is nearing completion but is second priority to the RSG submittals. An additional call is planned with NRR prior to submittal.
Risk Informed ISI Cost/Benefit	Eng Programs	S Pyle	Dec 1999	ANO-1 implemented the limited scope RI-ISI program at 1R15. Similar to that conducted on the ANO-2 RI-ISI program for full scope application. The NRC Staff has requested that a cost savings of both monetary and dose savings be provided for comparison of options.

GL 96-05, Periodic Verification of Safety Related MOVs	MCS	Corp. Lic./ (S Bennett)	TBD	The NRC staff is in the process of issuing additional follow-up questions to all the EOI sites on the methodology and risk aspects of the periodic verification program. The RAIs should be issued in October/ early November.
IR15 submittal on SG tubesheet Weld Inspection Not within ASME Code	Eng Programs	S Bennett	Jan 2000	During IR15, a weld was found on the tubesheet to SG head weld that was not within ASME Code. This weld was evaluated under IWB 3600 of the Code and found acceptable. Even though the weld could be declared Operable, an NRC submittal is necessary to consider the Code ultimately acceptable.
GL 95-07, PL/TB of SR MOVs on ANO-1 EFW Valves	ANO-1 Ops	S Bennett	TBD	This issue is essentially resolved for ANO, however, the ANO-1 EFW Pump Operation procedure currently allows the EFW isolation valves to be reopened after a pressure locking event. The procedure should be revised and an additional submittal provided noting the change.
Annual 72.48 Dry Fuel Report to NRC	DFS Project	J Dosa	Dec 1999	An annual report of 72.48 Evaluations (similar to 50.59 Report) must go to NRC annually. The evaluations need to be compiled and submitted. Licensing is critical path.
IWL Relief on Alternating Containment Inspections	MCS	S Bennett	April 2000	IWL of the ASME Code allows inspections of dual unit sites' containments to be inspected alternatively given certain conditions. ANO does not specifically meet these conditions and will seek relief to perform alternating inspections. Submittal in development

Safety Analysis Report Update and Upgrade

Submittal Topic	Site DOR	Lic DOR	Target Submittal	Comments/Concerns
ANO-1 SAR Update Submittal	Licensing	Dee Cantwell	April 2000	This is the submittal of the ANO-1 Periodic SAR Update which is required to be submitted within six months following the completion of the 1R15 refueling outage. This submittal requires extensive review time within Licensing.
SAR Upgrade Project	Licensing	Tom Scott	TBD	This project was essentially suspended when the NRC announced an extension of the enforcement discretion period for identified SAR errors. When activity on the project was suspended, all reviews had been completed except Unit 1 System Engineering. Also, there are approximately 300 discrepancies which still require resolution. Enforcement Guidance Memorandum 98-007 indicated that the NRC will exercise enforcement discretion until 03/30/2000 for SAR discrepancies associated with SSCs identified by the Maintenance Rule as being of high safety significance and until 03/30/2001 for the remainder of the SAR discrepancies. At a June 3-4, 1999, NEI Workshop, Tom Bergman of NRR stated that the NRC expects the SAR review and corrective actions to be completed by March 2001.

Key Submittals Currently Being Tracked for Ongoing Response

Submittal Topic	Site DOR	Lic DOR	Target Approval	Comments/Concerns
Elimination of Post Accident Sampling	Chem	D Bice	Dec 1999	ANO is the lead plant in a CEOG initiative to eliminate the PASS system. ANO has made several submittals and has supported ACRS meetings in defense of removing the PASS system for both units at ANO. We have requested NRC approval by the end of 1999. This is a critical cost savings initiative at ANO.
ANO-2 Top of Tubesheet Inspection for 2P99.	Eng Programs	J Dosa	11/9/99	A final submittal is going to the NRC on 10/26/99 to address the expansion basis criteria. This is the only submittal that is in for 2P99 approval. NRC approval is in progress and is targeted about November 5, 1999.
Current RSG Submittals	MCS/ NED	D Boyd	Fall 2000	ANO has already made several submittals to the NRC regarding ANO-2 Replacement SGs. These submittals will be the subject of a December Meeting being proposed with NRR. NRC review timeliness of the CE Model for the Appendix K LBLOCA, as requested in our Sept 29, 1999 letter, is critical to RSG success.
ANO-1 NaOH Tank Concentration Limits	ANO-1 Ops	C Szabo	Nov 1999	In August 1998, ANO submitted a TSCR to reduce the NaOH Tank minimum concentration for 15 to 5 wt% and Maximum from 20.8 to 16.5 wt%. The NRC is in review of this TSCR. ANO needs to address the maximum tank level in TS Bases per RSTS.