



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

August 30, 2005

Jeffrey S. Forbes  
Vice President Operations  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 S.R. 333  
Russellville, AR 72801-0967

**SUBJECT: MIDCYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
ARKANSAS NUCLEAR ONE**

Dear Mr. Forbes:

On August 4, 2005, the NRC staff completed its performance review of Arkansas Nuclear One for the first half of the calendar year 2005 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous 12 months. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility in order for you to inform us of any planned inspections that may conflict with your plant activities.

This performance review and enclosed inspection plan do not include physical protection information. A separate letter designated and marked as "Exempt from Public Disclosure in Accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Plant performance for the most recent quarter for Units 1 and 2 was within the Licensee Response Column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Although plant performance was within the Licensee Response Column, the significance of an inspection finding is still under review using the Significance Determination Process. This finding involves an inadequate maintenance procedure that resulted in damaging a reactor coolant pump seal and required placing the Unit 2 reactor in a reduced inventory condition for repair. When the significance of this finding is finalized, our assessment of your plant's safety performance may change.

While plant performance for the most recent quarter was in the Licensee Response column of the Action Matrix, Arkansas Nuclear One, Unit 1, was in the Regulatory Response Column of the Action Matrix at the beginning of this assessment period based on one finding of low to moderate safety significance in the Mitigating Systems Cornerstone. This finding involved the unacceptable use of manual actions in lieu of providing protection for cables associated with equipment required for achieving and maintaining hot shutdown conditions. The NRC conducted a supplemental inspection in accordance with Inspection Procedure 95001,

"Inspection for One or Two White Inputs in a Strategic Performance Area." The NRC concluded that your extent of condition review and corrective actions were appropriate and the finding was closed in NRC Inspection Report 05000313/2005-011; 05000368/2005-011, dated March 31, 2005.

Based on your performance this period, the NRC has identified a substantive crosscutting issue in the area of problem identification and resolution (PIR). This substantive crosscutting issue was identified based on six Green findings related to prioritization and correction of known conditions adverse to quality. The NRC recognizes that Entergy had previously implemented actions to improve the effectiveness of your corrective action program, particularly in the area of problem identification. These actions were taken, in part, in response to a previously identified PIR substantive crosscutting issue. However, during this assessment period, the NRC identified that corrective actions taken in response to long-standing degradation of the emergency cooling pond spillway/dam structure have not been effective. This finding revealed multiple performance insights involving the adequacy of past improvement initiatives, the willingness to accept long-standing degraded equipment, and the degree of rigor in the approach to problem resolution. In addition to this finding, several other corrective action findings involving multiple cornerstones were identified during this assessment period. Other examples of failure to take appropriate corrective actions for identified deficiencies included failure to generate guidance for resetting rod control system faults that resulted in operators temporarily exceeding licensed rated thermal power, failure to promptly correct a deficient containment isolation valve design, and failure to prevent recurring noncompliances with boric acid corrosion control program procedures.

During baseline inspections, the NRC will focus on selecting problem identification and resolution inspection samples related to implementation of corrective actions, particularly for long-standing and recurring, previously identified conditions. During the NRC semiannual trend review of your corrective action program, we will review your efforts to identify and track instances of ineffective or untimely corrective actions. Focused NRC oversight of this area will no longer be necessary when our inspections indicate that your actions have been effective in improving the implementation of corrective actions related to identified deficiencies, particularly in the prevention of long-standing and repetitive problems.

In our annual assessment letter, dated March 2, 2005, we discussed our plans to conduct focused baseline inspections of your actions and initiatives in the safety conscious work environment area. These inspections identified a number of positive safety culture enhancements that have been implemented by Entergy. As a result, focused inspections within this area are no longer warranted.

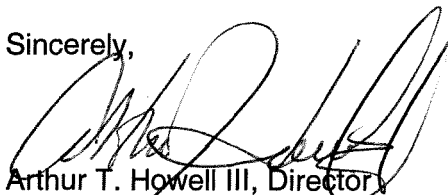
The enclosed inspection plan details the inspections, except those related to physical protection, scheduled through March 31, 2007. In addition to the baseline inspections, NRC will also be conducting inspections related to Inspection Procedure 50001, "Steam Generator Replacement Inspection," Inspection Procedure 71007, "Reactor Vessel Head Replacement Inspection," and Temporary Instruction 2515/160, "Pressurizer Penetration Nozzles and Steam Space Piping Connections in U.S. Pressurized Water Reactors (NRC Bulletin 2004-01)." The inspection plan is provided to minimize the resource impact on your staff and to allow for the early resolution of any scheduling conflicts and personnel availability issues well in advance of

inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 9 months of the inspection plan are tentative and may be revised at the end-of-cycle review meeting.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact David N. Graves at (817) 860-8147 with any questions you may have regarding this letter or the inspection plan.

Sincerely,



Arthur T. Howell III, Director  
Division of Reactor Projects

Dockets: 50-313  
50-368  
Licenses: DPR-51  
NPF-6

Enclosure:  
Arkansas Nuclear One Inspection/Activity Plan

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- 4 -

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| Unit Number | Inspection Activity                                      | Title   | No. of Staff on Site | Planned Dates Start | Planned Dates End | Inspection Type      |
|-------------|--|---|----------------------|---------------------|-------------------|----------------------|
|             | <b>SG-RVH - U1 STEAM GENERATOR &amp; RVH REPLACEMENT</b> |   | 4                    |                     |                   |                      |
| 1           | IP 50001   | Steam Generator Replacement Inspection  |                      | 01/01/2005          | 12/31/2005        | Other Routine        |
| 1           | IP 70307   | Containment Integrated Leak Rate Test Review  |                      | 01/01/2005          | 12/31/2005        | Other Routine        |
| 1           | IP 70313   | Containment Integrated Leak Rate Test Surveillance                                      |                      | 01/01/2005          | 12/31/2005        | Other Routine        |
| 1           | IP 70323   | Containment Leak Rate Test Results  |                      | 01/01/2005          | 12/31/2005        | Other Routine        |
| 1           | IP 71007   | Reactor Vessel Head Replacement Inspection  |                      | 01/01/2005          | 12/31/2005        | Other Routine        |
| 1           | IP 7111102   | Evaluation of Changes, Tests, or Experiments  |                      | 01/01/2005          | 12/31/2005        | Baseline Inspections |
| 1           | IP 7111108P  | Inservice Inspection Activities - PWR   |                      | 01/01/2005          | 12/31/2005        | Baseline Inspections |
| 1           | IP 7111117A  | Permanent Plant Modifications   |                      | 01/01/2005          | 12/31/2005        | Baseline Inspections |
| 1           | IP 71152   | Identification and Resolution of Problems   |                      | 01/01/2005          | 12/31/2005        | Baseline Inspections |
|             | <b>OB-INIT - INITIAL EXAM</b>                            |   | 4                    |                     |                   |                      |
| 1           | X02287   | ANO UNIT 1 (06/05) - INITIAL EXAM   |                      | 08/22/2005          | 08/26/2005        | Not Applicable       |
| 1           | X02287   | ANO UNIT 1 (06/05) - INITIAL EXAM   |                      | 09/12/2005          | 09/16/2005        | Not Applicable       |
|             | <b>PEB-07B - HX PERFORMANCE</b>                          |   | 1                    |                     |                   |                      |
| 1,2         | IP 7111107B  | Heat Sink Performance   |                      | 08/29/2005          | 09/02/2005        | Baseline Inspections |
|             | <b>ACRSA - ACCESS CONTROL TO RAD SIGNIFICANT AREAS</b>   |   | 1                    |                     |                   |                      |
| 1,2         | IP 7112102   | ALARA Planning and Controls   |                      | 10/31/2005          | 11/03/2005        | Baseline Inspections |
| 1,2         | IP 71151   | Performance Indicator Verification  |                      | 10/31/2005          | 11/03/2005        | Baseline Inspections |
|             | <b>EB08P - ISI U1</b>                                    |   | 3                    |                     |                   |                      |
| 1           | IP 2515/160  | Pzr Pene Nozzles & Strm Space Piping Connections in U.S. PWRs [NRC Bulletin 2004-01]    |                      | 11/14/2005          | 11/18/2005        | Safety Issues        |
| 1           | IP 7111108P  | Inservice Inspection Activities - PWR   |                      | 11/14/2005          | 11/18/2005        | Baseline Inspections |
| 1           | IP 7111108P  | Inservice Inspection Activities - PWR   |                      | 11/28/2005          | 12/02/2005        | Baseline Inspections |
|             | <b>ALARA - ALARA PLANNING AND CONTROLS</b>               |   | 1                    |                     |                   |                      |
| 1,2         | IP 7112102   | ALARA Planning and Controls   |                      | 04/03/2006          | 04/07/2006        | Baseline Inspections |
|             | <b>EPI - EMERG PREPAREDNESS EXERCISE</b>                 |   | 3                    |                     |                   |                      |
| 1,2         | IP 7111401   | Exercise Evaluation   |                      | 04/24/2006          | 04/28/2006        | Baseline Inspections |
| 1,2         | IP 7111404   | Emergency Action Level and Emergency Plan Changes                                       |                      | 04/24/2006          | 04/28/2006        | Baseline Inspections |
| 1,2         | IP 71151   | Performance Indicator Verification  |                      | 04/24/2006          | 04/28/2006        | Baseline Inspections |
|             | <b>RP TEAM - RP SAFETY TEAM INSPECTION</b>               |   | 5                    |                     |                   |                      |
| 1,2         | IP 7112103   | Radiation Monitoring Instrumentation and Protective Equipment                           |                      | 06/05/2006          | 06/09/2006        | Baseline Inspections |
| 1,2         | IP 7112201   | Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems                |                      | 06/05/2006          | 06/09/2006        | Baseline Inspections |
| 1,2         | IP 7112202   | Radioactive Material Processing and Transportation                                      |                      | 06/05/2006          | 06/09/2006        | Baseline Inspections |
| 1,2         | IP 7112203   | Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control F |                      | 06/05/2006          | 06/09/2006        | Baseline Inspections |
|             | <b>EB02/17 - PERMANENT MODS/50.59</b>                    |   | 3                    |                     |                   |                      |
| 1,2         | IP 7111102   | Evaluation of Changes, Tests, or Experiments  |                      | 06/12/2006          | 06/16/2006        | Baseline Inspections |

This report does not include INPO and OUTAGE activities.  
 This report shows only on-site and announced inspection procedures.

| Unit Number | Inspection Activity                                    | Title  | No. of Staff on Site | Planned Dates Start | Planned Dates End | Inspection Type      |
|-------------|--|--|----------------------|---------------------|-------------------|----------------------|
| 2           | <b>OB-INIT</b> - ANO2 INITIAL EXAM                     |  | 4                    |                     |                   |                      |
|             | X02294   | ANO UNIT 2 INITIAL EXAM (07/06)                    |                      | 06/26/2006          | 06/30/2006        | Not Applicable       |
| 2           | X02294   | ANO UNIT 2 INITIAL EXAM (07/06)                    |                      | 07/17/2006          | 07/21/2006        | Not Applicable       |
| 1, 2        | <b>OB-RQ</b> - ANO2 REQUALIFICATION INSP               |  | 3                    |                     |                   |                      |
|             | IP 7111111B  | Licensed Operator Requalification Program          |                      | 07/24/2006          | 07/28/2006        | Baseline Inspections |
| 1, 2        | <b>PEB</b> - MAINTENANCE RULE BIENNIAL                 |  | 1                    |                     |                   |                      |
|             | IP 7111112B  | Maintenance Effectiveness                          |                      | 08/14/2006          | 08/18/2006        | Baseline Inspections |
| 1, 2        | <b>ACRSA</b> - ACCESS CONTROL TO RAD SIGNIFICANT AREAS |  | 1                    |                     |                   |                      |
|             | IP 7112101   | Access Control to Radiologically Significant Areas |                      | 09/25/2006          | 09/29/2006        | Baseline Inspections |
| 1, 2        | <b>ALARA2</b> - ALARA PLANNING AND CONTROLS            |  | 1                    |                     |                   |                      |
|             | IP 7112102   | ALARA Planning and Controls                        |                      | 01/08/2007          | 01/12/2007        | Baseline Inspections |
| 1, 2        | <b>PIR</b> - ANO PIR INSPECTION                        |  | 5                    |                     |                   |                      |
|             | IP 71152B  | Identification and Resolution of Problems          |                      | 01/22/2007          | 01/26/2007        | Baseline Inspections |
| 1, 2        | IP 71152B  | Identification and Resolution of Problems          |                      | 02/05/2007          | 02/09/2007        | Baseline Inspections |
| 1, 2        | <b>07B</b> - HEAT SINK INSPECTION                      |  | 2                    |                     |                   |                      |
|             | IP 7111107B  | Heat Sink Performance                              |                      | 02/26/2007          | 03/02/2007        | Baseline Inspections |

This report does not include INPO and OUTAGE activities.  
 This report shows only on-site and announced inspection procedures.

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- D. Holland, NRR Project Manager (**DGH1**)
- T. Bergman, Chief, TRPS/OEDO (**TAB**)

SISP Review Completed: \_dng\_ ADAMS:  Yes     No    Initials: \_dng\_  
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