August 31, 2007

Timothy G. Mitchell  
Vice President Operations  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 S.R. 333  
Russellville, AR 72802-0967

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN - ARKANSAS NUCLEAR ONE

Dear Mr. Mitchell:

On August 8, 2007, the NRC staff completed its performance review of Arkansas Nuclear One for the first half of the calendar year 2007 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.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only--Security Information" will include the security cornerstone review and resultant inspection plan.

Plant performance for the most recent quarter at Arkansas Nuclear One 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). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

The enclosed inspection plan details the inspections, except those related to security scheduled through December 31, 2008. The inspection plan is provided to allow for the 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 nine months of the inspection plan are tentative and may be revised at the end-of-cycle review.

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).
The NRC is currently evaluating the scope and frequency of all the baseline inspection procedures if the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 817-860-8147 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

Jeff Clark, Chief
Reactor Projects Branch E
Division of Reactor Projects

Docket Nos. 50-313, 50-368
License Nos. DPR-51, NPF-6

Enclosure: Arkansas Nuclear One Inspection/Activity Plan

cc w/Enclosure:
Senior Vice President
& Chief Operating Officer
Entergy Operations, Inc.
P.O. Box 31995
Jackson, MS 39286-1995

Manager, Licensing
Entergy Operations, Inc.
Arkansas Nuclear One
1448 S. R. 333
Russellville, AR 72802

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

Director, Nuclear Safety & Licensing
Entergy Operations, Inc.
1340 Echelon Parkway
Jackson, MS 39213-8298

General Manager Plant Operations
Entergy Operations, Inc.
Arkansas Nuclear One
1448 S. R. 333
Russellville, AR 72802

Section Chief, Division of Health
Radiation Control Section
Arkansas Department of Health and
Human Services
4815 West Markham Street, Slot 30
Little Rock, AR 72205-3867

Director, Nuclear Safety Assurance
Entergy Operations, Inc.
Arkansas Nuclear One
1448 S. R. 333
Russellville, AR 72802

Section Chief, Division of Health
Emergency Management Section
Arkansas Department of Health and
Human Services
4815 West Markham Street, Slot 30
Little Rock, AR 72205-3867
Entergy Operations, Inc.

Manager, Washington Nuclear Operations
ABB Combustion Engineering Nuclear
Power
12300 Twinbrook Parkway, Suite 330
Rockville, MD 20852

County Judge of Pope County
Pope County Courthouse
100 West Main Street
Russellville, AR 72801

James Mallay
Director, Regulatory Affairs
Framatome ANP
3815 Old Forest Road
Lynchburg, VA 24501

Lisa R. Hammond, Chief
Technological Hazards Branch
National Preparedness Division
FEMA Region VI
800 N. Loop 288
Denton, TX 76209

Institute of Nuclear Power Operations (INPO)
Records Center
700 Galleria Parkway SE, Suite 100
Atlanta, GA 30339
Entergy Operations, Inc.

Electronic distribution by RIV:
Regional Administrator (BSM1)
DRP Director (ATH)
DRS Director (DDC)
DRS Deputy Director (RJC1)
Senior Resident Inspector (RWD)
Branch Chief, DRP/E (JAC)
Senior Project Engineer, DRP/E (GDR)
Team Leader, DRP/TSS (CJP)
RITS Coordinator (MSH3)
RidsNrrDirslpab@nr.gov
V. Dricks, PAO (VLD)
W. Maier, RSLO (WAM)
L. Owen, RA Secretary (LAO)
DRS Branch Chiefs (WBJ, ATG, LJS, MPS1)
T. Bloomer, Chief, TRPS, OEDO (TEB)
S. Richards, Deputy Director, DIRS, NRR (SAR)
J. Lubinski, Deputy Director, DORL, NRR (JWL)
C. Haney, Director, DORL, NRR (CXH)
T. Hiltz, Chief, PLB IV, DORL, NRR (TGH)
N. Kalyanam, NRR Project Manager for ANO (NXK)

SUNSI Review Completed:  ADAMS: ☑ Yes ☐ No Initials: __________
☐ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☑ Non-Sensitive

R: REACTORS/EIOC and Midcycle Assessment Letters/2007/ANO.wpd

<table>
<thead>
<tr>
<th>RIV:SPE/DRP/E</th>
<th>C:DRP/E</th>
<th>D:DRS</th>
<th>D:DRP</th>
<th>C:DRP/E: signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDR replog 3mjs</td>
<td>JAClark</td>
<td>DDChamberlain</td>
<td>ATHowell</td>
<td>JAClark</td>
</tr>
</tbody>
</table>

8/26/07 8/3/07 8/19/07 8/7/07 8/23/07

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax
# Arkansas Nuclear One
## Inspection / Activity Plan
**09/01/2007 - 12/31/2008**

<table>
<thead>
<tr>
<th>Unit Number</th>
<th>Inspection Activity</th>
<th>Title</th>
<th>No. of Staff on Site</th>
<th>Planned Dates Start</th>
<th>Planned Dates End</th>
<th>Inspection Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB1-21</td>
<td>CDB</td>
<td></td>
<td>7</td>
<td>09/10/2007</td>
<td>09/21/2007</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7111121</td>
<td>Component Design Bases Inspection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB2-05T</td>
<td>TRIENNIAL FIRE PROTECTION</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7111105T</td>
<td>Fire Protection [Triennial]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7111105T</td>
<td>Fire Protection [Triennial]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXAM</td>
<td>INITIAL EXAMINATION - UNIT 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>X02373</td>
<td>ANO UNIT 2 - INITIAL EXAM (02/2008)</td>
<td></td>
<td>01/07/2008</td>
<td>01/11/2008</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>2</td>
<td>X02373</td>
<td>ANO UNIT 2 - INITIAL EXAM (02/2008)</td>
<td></td>
<td>02/25/2008</td>
<td>03/05/2008</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>RP-ORS1</td>
<td>OCCUPATIONAL RADIATION SAFETY - ACCESS</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112101</td>
<td>Access Control to Radiologically Significant Areas</td>
<td></td>
<td>03/24/2008</td>
<td>03/28/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112102</td>
<td>ALARA Planning and Controls</td>
<td></td>
<td>03/24/2008</td>
<td>03/28/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>2</td>
<td>IP 71151-OR01</td>
<td>Occupational Exposure Control Effectiveness</td>
<td></td>
<td>03/24/2008</td>
<td>03/28/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1</td>
<td>IP 71151-PR01</td>
<td>RETS/ODCM Radiological Effluent</td>
<td></td>
<td>03/24/2008</td>
<td>03/28/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>EP1</td>
<td>EP EXERCISE</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 711401</td>
<td>Exercise Evaluation</td>
<td></td>
<td>05/05/2008</td>
<td>05/10/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>EB1-2/17</td>
<td>50.59 &amp; PERMANENT PLANT MODS</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7111102</td>
<td>Evaluation of Changes, Tests, or Experiments</td>
<td></td>
<td>06/16/2008</td>
<td>06/20/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7111117B</td>
<td>Permanent Plant Modifications</td>
<td></td>
<td>06/16/2008</td>
<td>06/20/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>REGUAL</td>
<td>BIENNIAL REQUALIFICATION AN2 BRQ AN1 ARQ</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7111111B</td>
<td>Licensed Operator Requalification Program</td>
<td></td>
<td>07/07/2008</td>
<td>07/11/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>RP TEAM</td>
<td>RADIATION SAFETY TEAM INSPECTION</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112103</td>
<td>Radiation Monitoring Instrumentation and Protective Equipment</td>
<td></td>
<td>07/07/2008</td>
<td>07/11/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112201</td>
<td>Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems</td>
<td></td>
<td>07/07/2008</td>
<td>07/11/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112202</td>
<td>Radioactive Material Processing and Transportation</td>
<td></td>
<td>07/07/2008</td>
<td>07/11/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112203</td>
<td>Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control F</td>
<td></td>
<td>07/07/2008</td>
<td>07/11/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>EXAM</td>
<td>INITIAL EXAMINATION</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X02359</td>
<td>ANO UNIT 1 - INITIAL EXAM (01/08)</td>
<td></td>
<td>07/28/2008</td>
<td>08/01/2008</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>1</td>
<td>X02359</td>
<td>ANO UNIT 1 - INITIAL EXAM (01/08)</td>
<td></td>
<td>09/08/2008</td>
<td>09/12/2008</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>RP-ORS2</td>
<td>OCCUPATIONAL RADIATION SAFETY-ALARA</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112101</td>
<td>Access Control to Radiologically Significant Areas</td>
<td></td>
<td>09/15/2008</td>
<td>09/19/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112102</td>
<td>ALARA Planning and Controls</td>
<td></td>
<td>09/15/2008</td>
<td>09/19/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1</td>
<td>IP 71151-OR01</td>
<td>Occupational Exposure Control Effectiveness</td>
<td></td>
<td>09/15/2008</td>
<td>09/19/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>2</td>
<td>IP 71151-PR01</td>
<td>RETS/ODCM Radiological Effluent</td>
<td></td>
<td>09/15/2008</td>
<td>09/19/2008</td>
<td>Baseline Inspections</td>
</tr>
</tbody>
</table>

This report does not include INPO and OUTAGE activities. This report shows only on-site and announced inspection procedures.
<table>
<thead>
<tr>
<th>Unit Number</th>
<th>Inspection Activity</th>
<th>Title</th>
<th>No. of Staff on Site</th>
<th>Planned Dates Start</th>
<th>Planned Dates End</th>
<th>Inspection Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>IP 7112101</td>
<td>Access Control to Radiologically Significant Areas</td>
<td>1</td>
<td>11/03/2008</td>
<td>11/07/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1, 2</td>
<td>IP 7112102</td>
<td>ALARA Planning and Controls</td>
<td>1</td>
<td>11/03/2008</td>
<td>11/07/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>1</td>
<td>IP 71151-OR01</td>
<td>Occupational Exposure Control Effectiveness</td>
<td>1</td>
<td>11/03/2008</td>
<td>11/07/2008</td>
<td>Baseline Inspections</td>
</tr>
<tr>
<td>2</td>
<td>IP 71151-PR01</td>
<td>RETS/ODCM Radiological Effluent</td>
<td>1</td>
<td>11/03/2008</td>
<td>11/07/2008</td>
<td>Baseline Inspections</td>
</tr>
</tbody>
</table>

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