August 31, 2007

Kevin T. Walsh
Vice President Operations
Waterford Steam Electric Station, Unit 3
Entergy Operations, Inc.
17265 River Rd.
Killona, AR 70057-3093

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN - WATERFORD STEAM ELECTRIC STATION, UNIT 3

Dear Mr. Walsh:

On August 8, 2007, the NRC staff completed its performance review of Waterford Steam Electric Station, Unit 3 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 Waterford Steam Electric Station, Unit 3 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 baseline inspections at your facility. In addition, we plan to follow up on your inspection activities associated with the steam generator batwing supports during the mid-cycle outage scheduled to begin on October 7, 2007.

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

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,

[Signature]

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

Docket No. 50-382
License No. NPF-38

Enclosure: Waterford 3 Inspection/Activity Plan

cc w/Enclosure:
Mr. Jeff Forbes
Senior Vice President and
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

Ms. Kimberly S. Cook, Director
Nuclear Safety Assurance
Entergy Operations, Inc.
17265 River Road
Killona, LA 70057-0751

Manager, Licensing
Entergy Operations, Inc.
17265 River Road
Killona, LA 70057-3093

Chairman
Louisiana Public Service Commission
P.O. Box 91154
Baton Rouge, LA 70825-1697

Richard Penrod, Senior Environmental
Scientist, State Liaison Officer
Office of Environmental Services
Northwestern State University
Russell Hall, Room 201
Natchitoches, LA 71497

Parish President Council
St. Charles Parish
P.O. Box 302
Hahnville, LA 70057
Entergy Operations, Inc.

Mr. John McCann
Director, Nuclear Safety & Licensing
Entergy, Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Louisiana Department of Environmental Quality Radiological Emergency Planning and Response Division
P.O. Box 4312
Baton Rouge, LA 70821-4312

Louisiana Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, LA 70821-4312

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 (GFL1)
Branch Chief, DRP/E (JAC)
Senior Project Engineer, DRP/E (GDR)
Team Leader, DRP/TSS (CJP)
RITS Coordinator (MSH3)
RidsNrrDirslpab@nrc.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, DIROS, 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 Waterford (NXK)
D. Pelton, OEDO RIV Coordinator (DLP1)

SUNSI Review Completed: _JAC_ ADAMS: ✓ Yes □ No Initials: JAC___
✓ Publicly Available □ Non-Publicly Available □ Sensitive ✓ Non-Sensitive

R: _REACTORS\EOC and Midcycle\Midcycle Assessment Letters\2007\WT.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>GDrEplogie;mds</td>
<td>JAClark</td>
<td>DDChamberlain</td>
<td>ATHowell</td>
<td>JAClark</td>
</tr>
<tr>
<td>/RA/</td>
<td>GDrEplogie for</td>
<td>RJCaniano for</td>
<td>/RA/</td>
<td>/8/17/07</td>
</tr>
<tr>
<td>8/17/07</td>
<td>8/17/07</td>
<td>8/17/07</td>
<td>8/19/07</td>
<td>8/21/07</td>
</tr>
</tbody>
</table>

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax
### Table:

<table>
<thead>
<tr>
<th>Type</th>
<th>Inspection Start Date</th>
<th>Planned Date</th>
<th>End Date</th>
<th>No. of Site</th>
<th>Title</th>
<th>Unit</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/15/2008</td>
<td>9/15/2008</td>
<td>9/15/2008</td>
<td></td>
<td>E20-OF - BIENNIAL HEAD INSTRUMENT RINSER</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PERFORMED RINSE CYCLE EFFICIENCY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OCCUPATIONAL EXPOSURE CONTROL EFFICIENCY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ALARA PLANNING AND CONTROL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ACCESS CONTROL TO RADIATION-SENSITIVE AREAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OCCUPATIONAL RADIATION SAFETY ALARA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PREMISE PLAN RADIATION SAFETY TESTS, RESULTS OF EXPERIMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PERFORMED RINSE CYCLE EFFICIENCY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OCCUPATIONAL EXPOSURE CONTROL EFFICIENCY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ALARA PLANNING AND CONTROL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ACCESS CONTROL TO RADIATION-SENSITIVE AREAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OCCUPATIONAL RADIATION SAFETY ALARA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PREMISE PLAN RADIATION SAFETY TESTS, RESULTS OF EXPERIMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PERFORMED RINSE CYCLE EFFICIENCY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OCCUPATIONAL EXPOSURE CONTROL EFFICIENCY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ALARA PLANNING AND CONTROL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ACCESS CONTROL TO RADIATION-SENSITIVE AREAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OCCUPATIONAL RADIATION SAFETY ALARA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PREMISE PLAN RADIATION SAFETY TESTS, RESULTS OF EXPERIMENTS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Report:** 22

**Unit:** 05-1/6-98

**Inspection Activity:** Waterford