



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

August 18, 2006

EA-06-192

Joseph E. Venable  
Vice President Operations  
Waterford 3  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

**SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - NRC INTEGRATED  
INSPECTION REPORT 05000382/2006003 AND NOTICE OF VIOLATION**

Dear Mr. Venable:

On July 7, 2006, the NRC completed an inspection at your Waterford Steam Electric Station, Unit 3. The enclosed report documents the inspection findings, which were discussed on July 11, 2006, with Mr. B. Williams, Director, Engineering, and other members of your staff.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that a violation is associated with this issue. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at [www.nrc.gov](http://www.nrc.gov); select What We Do, Enforcement, then Enforcement Policy. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation is being cited in the Notice because your staff failed to restore compliance within a reasonable time after the deficient condition was identified.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response 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).

Entergy Operations, Inc.

-2-

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

David N. Graves, Chief  
Project Branch E  
Division of Reactor Projects

Docket: 50-382  
License: NPF-38

Enclosure:

1. Notice of Violation
2. NRC Inspection Report 050000382/2006003

Entergy Operations, Inc.

-3-

cc w/enclosure:

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

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

General Manager, Plant Operations  
Waterford 3 SES  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

Manager - Licensing Manager  
Waterford 3 SES  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

Chairman  
Louisiana Public Service Commission  
P.O. Box 91154  
Baton Rouge, LA 70821-9154

Director, Nuclear Safety &  
Regulatory Affairs  
Waterford 3 SES  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066-0751

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

Entergy Operations, Inc.

-4-

Parish President  
St. Charles Parish  
P.O. Box 302  
Hahnville, LA 70057

Winston & Strawn LLP  
1700 K Street, N.W.  
Washington, DC 20006-3817

Chairperson  
Denton Field Office  
Chemical and Nuclear Preparedness and Protection Division  
Office of Infrastructure Protection  
Preparedness Directorate  
Dept. of Homeland Security  
800 North Loop 288  
Federal Regional Center  
Denton, TX 76201-3698

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 (**DNG**)

Senior Project Engineer, DRP/E (**VGG**)

Team Leader, DRP/TSS (**RLN1**)

RITS Coordinator (**KEG**)

Only inspection reports to the following:

DRS STA (**DAP**)

J. Lamb, OEDO RIV Coordinator (**JGL1**)

**ROPreports**

WAT Site Secretary (**AHY**)

SUNSI Review Completed:   DNG   ADAMS: / Yes ☐ No Initials:   DNG    
 / Publicly Available ☐ Non-Publicly Available ☐ Sensitive / Non-Sensitive

R:\\_REACTORS\\_WAT\2006\WT2006-03RP-GFL.wpd

SRI:DRP/E	DRS/EB1	C:DRS/PSB	C:DRS/EB2	C:DRS/OB
GFLarkin	JAClark	MPShannon	LJSmith	ATGody
<b>E-DNG</b> Graves	<b>/RA/</b>	<b>/RA/</b>	<b>/RA/</b>	<b>VG</b> Gaddy for
8/18/06	8/14/06	8/15/06	8/15/06	8/15/06
C:ACES	D:DRP	C:DRP/E		
KSF fuller	ATHowell	DNGraves		
<b>GM</b> Vasquez for	<b>/RA/</b>	<b>/RA/</b>		
8/18/06	8/18/06	8/18/06		

OFFICIAL RECORD COPY

T=Telephone

E=E-mail

F=Fax

## NOTICE OF VIOLATION

Entergy Operations, Inc.  
Waterford Steam Electric Station, Unit 3

Docket No. 50-382  
License No. NPF-38  
EA-06-192

During an NRC inspection completed on July 7, 2006, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 50, Appendix B, Criterion III, "Design Control," requires, in part, that applicable regulatory requirements and the design basis for systems to which Appendix B applies are correctly translated into specifications, procedures, and instructions. The Final Safety Analysis Report requires that the diesel generator air start system be capable of providing sufficient air capacity to start each diesel generator a minimum of five times.

Contrary to the above, the licensee failed to translate into specifications, procedures, and instructions the design criteria for the diesel generator air start system. This resulted in the failure to maintain each diesel generator air receiver capable of starting the diesel engine five times as required since being identified in September 2003.

This violation is associated with a Green SDP finding.

Pursuant to the provisions of 10 CFR 2.201, Entergy Operations, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region IV, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-06-192" and should include for the violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is

necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 18 day of August 2006

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket No.: 50-382

License No.: NPF-38

Report No.: 05000382/2006003

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: Hwy. 18  
Killona, Louisiana

Dates: April 8 through July 7, 2006

Inspectors: G. F. Larkin, Senior Resident Inspector  
P. J. Elkmann, Emergency Preparedness Inspector, Operations Branch  
M. C. Hay, Senior Project Engineer  
J. C. Kirkland, Project Engineer, Project Branch E  
D. L. Stearns, Health Physics Inspector, Plant Support Branch  
T. F. Stetka, Senior Operations Engineer

Approved By: David N. Graves, Chief, Project Branch E

ATTACHMENTS: Supplemental Information



## CONTENTS

<b>SUMMARY OF FINDINGS</b>	3
<b>REACTOR SAFETY</b>	4
1R01 <u>Adverse Weather Protection</u>	4
1R04 <u>Equipment Alignment</u>	5
1R05 <u>Fire Protection</u>	5
1R06 <u>Flood Protection Measures</u>	7
1R07 <u>Heat Sink Performance</u>	7
1R11 <u>Licensed Operator Requalification</u>	8
1R12 <u>Maintenance Rule Implementation</u>	8
1R13 <u>Maintenance Risk Assessments and Emergent Work Evaluation</u>	9
1R14 <u>Non-Routine Evolutions and Events</u>	10
1R15 <u>Operability Evaluations</u>	10
1R17 <u>Permanent Plant Modifications</u>	11
1R19 <u>Post Maintenance Testing</u>	12
1R22 <u>Surveillance Testing</u>	12
1EP1 <u>Exercise Evaluation</u>	13
1EP4 <u>Emergency Action Level and Emergency Plan Changes</u>	14
1EP6 <u>Drill Evaluation</u>	15
<b>RADIATION SAFETY</b>	16
2OS1 <u>Access Control to Radiological Significant Areas</u>	16
2OS2 <u>ALARA Planning and Controls</u>	17
<b>OTHER ACTIVITIES</b>	18
4OA1 <u>Performance Indicator Verification</u>	18
4OA2 <u>Identification and Resolution of Problems</u>	19
4OA5 <u>Other Activities</u>	22
4OA6 <u>Meetings</u>	22
4OA7 <u>Licensee Identified Violations</u>	23
<b>ATTACHMENT: SUPPLEMENTAL INFORMATION</b>	A-1
KEY POINTS OF CONTACT	A-1
ITEMS OPENED, CLOSED, AND DISCUSSED	A-2
LIST OF DOCUMENTS REVIEWED	A-3
LIST OF ACRONYMS	A-9

## SUMMARY OF FINDINGS

IR05000382/2006-003; 04/08/2006-07/07/2006; Waterford Steam Electric Station, Unit 3; Identification and Resolution of Problems

The report covered a 3-month period of inspection by resident inspectors, a project engineer, and emergency preparedness, senior operations, and health physics inspectors. The inspectors identified one Green finding. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. NRC-Identified and Self-Revealing Findings

#### Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." In September 2003, the NRC identified that the emergency diesel generator starting air system was incapable of supplying sufficient air to start its respective emergency diesel generator a minimum of five times without being recharged. To date, the licensee has failed to take appropriate corrective actions in a timely manner to correct this deficiency and restore compliance.

This finding is greater than minor because it affected the mitigating system cornerstone objective due to the degradation of the design-basis capability of the starting air system. This finding has a crosscutting aspect in the corrective action component of the problem identification and resolution area because the licensee failed to take actions to address safety issues in a timely manner, commensurate with its safety significance and complexity. The finding was determined to be of very low safety significance because the deficiency did not represent an actual loss of the starting air system safety function per Generic Letter 91-18 guidance. Additionally, surveillance testing has demonstrated the capability of each diesel generator to start within the required 10 seconds (Section 4OA2).

### B. Licensee-Identified Violations

Violations of very low safety significance, which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective actions are listed in Section 4OA7 of this report.

## REPORT DETAILS

Summary of Plant Status: The plant was operated at approximately 100 percent power from April 7 through July 7, 2006, except when reactor power was reduced to approximately 89 percent on May 19, 2006, to conduct high-pressure turbine valve testing.

### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

#### 1R01 Adverse Weather Protection (71111.01)

##### .1 Readiness For Seasonal Susceptibilities

##### a. Inspection Scope

The inspectors completed a review of the licensee's readiness of seasonal susceptibilities to hurricane force winds and rainfall. The inspectors: (1) reviewed plant procedures, the Updated Final Safety Analysis Report, and Technical Specifications to ensure that operator actions defined in adverse weather procedures maintained the readiness of essential systems; (2) walked down portions of the three systems listed below to ensure that adverse weather protection features (missile barriers) were sufficient to support operability, including the ability to perform safe shutdown functions; (3) evaluated operator staffing levels to ensure the licensee could maintain the readiness of essential systems required by plant procedures; and (4) reviewed the corrective action program to determine if the licensee identified and corrected problems related to adverse weather conditions.

- June 21, 2006: Dry Cooling Towers Sump Pumps
- June 22, 2006: Atmospheric Dump Valves
- June 22, 2006: Steam Generator Code Safeties

Documents reviewed by the inspectors included:

- OP-901-521, Revision 4, Severe Weather and Flooding
- UFSAR, Revision 14
- OP-100-014, Revision 15, Technical Specification and Technical Requirements Compliance
- License Amendment 168 and Safety Evaluation Report to License Amendment 168, September 7, 2000
- EC-C99-008, Revision 1, Tornado Missile Analysis
- CR-WF3-2005-3431

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial Walkdown

a. Inspection Scope

The inspectors: (1) walked down portions of the three risk important systems listed below and reviewed plant procedures and documents to verify that critical portions of the selected systems were correctly aligned; and (2) compared deficiencies identified during the walk down to the licensee's Updated Final Safety Analysis Report and corrective action program to ensure problems were being identified and corrected.

- April 26, 2006: High Pressure Safety Injection System Train B
- May 10, 2006: Emergency Diesel Generating System Train A
- May 16, 2006: Component Cooling Water System Train A

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed three samples.

b. Findings

No Findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Inspection

a. Inspection Scope

The inspectors walked down the seven plant areas listed below to assess the material condition of active and passive fire protection features and their operational lineup and readiness. The inspectors: (1) verified that transient combustibles and hot work activities were controlled in accordance with plant procedures; (2) observed the condition of fire detection devices to verify they remained functional; (3) observed fire suppression systems to verify they remained functional and that access to manual actuators was unobstructed; (4) verified that fire extinguishers and hose stations were provided at their designated locations and that they were in a satisfactory condition; (5) verified that passive fire protection features (electrical raceway barriers, fire doors, fire dampers, steel fire proofing, penetration seals, and oil collection systems) were in a satisfactory material condition; (6) verified that adequate compensatory measures were established for degraded or inoperable fire protection features and that the

compensatory measures were commensurate with the significance of the deficiency; and (7) reviewed the Updated Final Safety Analysis Report to determine if the licensee identified and corrected fire protection problems.

- April 17, 2006: Fire Zone RAB 1A, 15, 31, and 32
- April 24, 2006: Fire Zone RAB 1B, 3, 8B, and RAB Roof East
- May 10, 2006: Fire Zone RAB 6, 7A, 7B, 7C, 7D, 8
- May 16, 2006: Fire Zone RAB 31, 32, 36
- June 2, 2006: Fire Zone RAB 2, 15, 36, 37, and 39
- June 13, 2006: Fire Zone RAB 2 and 32
- June 15, 2006: Fire Zone RAB 1E, 6, 8B, and Roof West

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed seven samples.

b. Findings

No findings of significance were identified.

.2 Annual Inspection

a. Inspection Scope

On June 23, 2006, the inspectors observed a fire brigade drill to evaluate the readiness of licensee personnel to prevent and fight fires, including the following aspects: (1) the number of personnel assigned to the fire brigade, (2) use of protective clothing, (3) use of breathing apparatuses, (4) use of fire procedures and declarations of emergency action levels, (5) command of the fire brigade, (6) implementation of prefire strategies and briefs, (7) access routes to the fire and the timeliness of the fire brigade response, (8) establishment of communications, (9) effectiveness of radio communications, (10) placement and use of fire hoses, (11) entry into the fire area, (12) use of fire fighting equipment, (13) searches for fire victims and fire propagation, (14) smoke removal, (15) use of prefire plans, (16) adherence to the drill scenario, (17) performance of the postdrill critique, and (18) restoration from the fire drill. The licensee simulated a fire in the reactor auxiliary building laundry room.

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed one sample.

b. Findings

No findings of significance were identified.

## 1R06 Flood Protection Measures (71111.06)

### .1 Semi-Annual Internal Flooding

#### a. Inspection Scope

The inspectors: (1) reviewed the Updated Final Safety Analysis Report, the flooding analysis, and plant procedures to assess seasonal susceptibilities involving internal flooding; (2) reviewed the Updated Final Safety Analysis Report and corrective action program to determine if the licensee identified and corrected flooding problems; (3) inspected underground bunkers/manholes to verify the adequacy of (a) sump pumps, (b) level alarm circuits, (c) cable splices subject to submergence, and (d) drainage for bunkers/manholes; (4) verified that operator actions for coping with flooding can reasonably achieve the desired outcomes; and (5) walked down the area listed below to verify the adequacy of: (a) equipment seals located below the floodline, (b) floor and wall penetration seals, (c) watertight door seals, (d) common drain lines and sumps, (e) sump pumps, level alarms, and control circuits, and (f) temporary or removable flood barriers.

- May 8, 2006: Unit 1, Safeguards Pump Room Train A

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed one sample.

#### b. Findings

No findings of significance were identified.

## 1R07 Heat Sink Performance (71111.07)

#### a. Inspection Scope

The inspectors reviewed licensee programs, verified performance against industry standards, and reviewed critical operating parameters and maintenance records for the essential chiller Train A evaporator. The inspectors verified that: (1) performance tests were satisfactorily conducted for heat exchangers/heat sinks and reviewed for problems or errors; (2) the licensee utilized the periodic maintenance method outlined in Electrical Power Research Institute NP-7552, "Heat Exchanger Performance Monitoring Guidelines;" (3) the licensee properly utilized biofouling controls; (4) the licensee's heat exchanger inspections adequately assessed the state of tube cleanliness, and (5) the heat exchanger was correctly categorized under the Maintenance Rule.

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed one sample.

#### b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program(71111.11)

a. Inspection Scope

On June 27, 2006, the inspectors observed testing and training of senior reactor operators and reactor operators to identify deficiencies and discrepancies in the training, to assess operator performance, and to assess the evaluator's critique. The training scenario involved multiple instrumentation failures, loss of Train B charging pump, inadvertent closure of Train A main feed isolation valve, loss of offsite power, and a main steam line break.

Documents reviewed by the inspectors included:

- Simulator Scenario Number E-99 list of events and event objectives
- Operations Procedure OP-902-000, "Standard Post Trip Actions," Revision 10
- Operations Procedure OP-902-003, "Loss of Offsite Power/Loss of Forced Circulation Recovery," Revision 5
- Operations Procedure OP-902-004, "Excess Steam Demand Recover," Revision 10
- Emergency Planning Procedure EP-001-001, "Recognition and Classification of Emergency Conditions," Revision 20

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed the two maintenance activities listed below to: (1) verify the appropriate handling of structure, system, and component performance or condition problems; (2) verify the appropriate handling of degraded structure, system, and component functional performance; (3) evaluate the role of work practices and common cause problems; and (4) evaluate the handling of structure, system, and component issues reviewed under the requirements of the Maintenance Rule, 10 CFR Part 50 Appendix B, and the Technical Specifications.

- June 14, 2006: Emergency Diesel Generator A
- June 15, 2006: Emergency Diesel Generator Air System

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed two samples.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

.1 Risk Assessment and Management of Risk

a. Inspection Scope

The inspectors reviewed the assessment activity listed below to verify: (1) performance of risk assessments when required by 10 CFR 50.65 (a)(4) and licensee procedures prior to changes in plant configuration for maintenance activities and plant operations; (2) the accuracy, adequacy, and completeness of the information considered in the risk assessment; (3) that the licensee recognizes, and/or enters as applicable, the appropriate licensee-established risk category according to the risk assessment results and licensee procedures; and (4) the licensee identified and corrected problems related to maintenance risk assessments.

- May 10-11, 2006: Planned maintenance activities on emergency diesel generator Train A

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed one sample.

b. Findings

No findings of significance were identified.

.2 Emergent Work Control

a. Inspection Scope

The inspectors: (1) verified that the licensee performed actions to minimize the probability of initiating events and maintained the functional capability of mitigating systems and barrier integrity systems; (2) verified that emergent work-related activities such as troubleshooting, work planning/scheduling, establishing plant conditions, aligning equipment, tagging, temporary modifications, and equipment restoration did not place the plant in an unacceptable configuration; and (3) reviewed the Updated Final Safety Analysis Report to determine if the licensee identified and corrected risk assessment and emergent work control problems.

- May 17, 2006: During emergent work activities on instrument air Train B

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed one sample.



b. Findings

No findings of significance were identified.

1R14 Operator Performance During Nonroutine Evolutions and Events (71111.14)

a. Inspection Scope

The inspectors: (1) reviewed operator logs, plant computer data, and/or strip charts for the evolutions listed below to evaluate operator performance in coping with nonroutine events and transients; (2) verified that operator actions were in accordance with the response required by plant procedures and training; and (3) verified that the licensee has identified and implemented appropriate corrective actions associated with personnel performance problems that occurred during the nonroutine evolutions sampled.

- April 8, 2006: A hot spot was discovered on Breaker LVDEBKR312A-5BR, B phase lug, due to a poor electrical connection. Breaker LVDEBKR312A-5BR powered portions of Train A emergency core cooling system, containment spray, component cooling water system, main steam system, control room ventilation system, and additional safety and nonsafety-related systems. Plant shutdown contingency plans were developed if maintenance failed to correct the condition within 10 hours because the required valve line-up during maintenance that would divert the reactor coolant pump control bleed off flow to the quench tank, which has a limited capacity, instead of back to the volume control tank to be injected into the reactor coolant system. Maintenance successfully corrected the loose lug condition. See Section 4OA7 for additional details.

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors: (1) reviewed plants status documents such as operator shift logs, emergent work documentation, deferred modifications, and standing orders to determine if an operability evaluation was warranted for degraded components; (2) referred to the Updated Final Safety Analysis Report and design-basis documents to review the technical adequacy of licensee operability evaluations; (3) evaluated compensatory measures associated with operability evaluations; (4) determined degraded component impact on any Technical Specifications; (5) used the Significance Determination Process to evaluate the risk significance of degraded or inoperable equipment; and (6) verified that the licensee has identified and implemented appropriate corrective actions associated with degraded components.

- April 20, 2006: Operability evaluation addressing a steam leak of feedwater Valve FW-1841B as described in Condition Report 2006-1177
- March 15, 2006: Operability evaluation addressing an identified discrepancy affecting the pipe stress analysis for component cooling water supply to the safety injection and containment spray pumps as described in Condition Report 2006-756
- June 5, 2006: Operability evaluation addressing emergency diesel generator Train A million volt-amps-reactive, Mwatt and Phase C current spikes during a monthly surveillance run as described in Condition Report 2006-1660
- March 14, 2006: Operability evaluation addressing the feasibility of postfire operator hot shutdown manual actions in the event of a relay room fire as described in Condition Report 2006-735

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed four samples.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

Annual Review

a. Inspection Scope

The inspectors reviewed key affected parameters associated with energy needs, materials/replacement components, timing, heat removal, control signals, equipment protection from hazards, operations, flow paths, pressure boundary, ventilation boundary, structural, process medium properties, licensing basis, and failure modes for the one modification listed below. The inspectors verified that: (1) modification preparation, staging, and implementation did not impair emergency/abnormal operating procedure actions, key safety functions, or operator response to loss of key safety functions; (2) postmodification testing maintained the plant in a safe configuration during testing by verifying that unintended system interactions will not occur, structure, system, and component performance characteristics still meet the design basis, the appropriateness of modification design assumptions, and the modification test acceptance criteria has been met; and (3) the licensee has identified and implemented appropriate corrective actions associated with permanent plant modifications.

- June 22, 2006: Reroute of essential chiller Train B control power from static uninterruptible power Supply B to power distribution Panel PDP-391-SB to limit reliability concerns associated with a cable vault or control room fire

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed one sample.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors selected the four postmaintenance test activities of risk significant systems or components listed below. For each item, the inspectors: (1) reviewed the applicable licensing basis and/or design-basis documents to determine the safety functions; (2) evaluated the safety functions that may have been affected by the maintenance activity; and (3) reviewed the test procedure to ensure it adequately tested the safety function that may have been affected. The inspectors either witnessed or reviewed test data to verify that acceptance criteria were met, plant impacts were evaluated, test equipment was calibrated, procedures were followed, jumpers were properly controlled, the test data results were complete and accurate, the test equipment was removed, the system was properly realigned, and deficiencies during testing were documented. The inspectors also reviewed the Updated Final Safety Analysis Report to determine if the licensee identified and corrected problems related to postmaintenance testing.

- May 11, 2006: Planned maintenance for emergency diesel generator Train A
- May 20, 2006: Emergent maintenance for shield building ventilation fan breaker Train A
- June 15, 2006: Planned maintenance for controlled area ventilation system Valve HVR-313B
- June 22, 2006: Planned maintenance for control room air handling unit isolation Relay HVCEREL1168A

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed four samples.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report, procedure requirements, and Technical Specifications to ensure that the four surveillance activities

listed below demonstrated that the structures, systems, and components tested were capable of performing their intended safety functions. The inspectors either witnessed or reviewed test data to verify that the following significant surveillance test attributes were adequate: (1) preconditioning; (2) evaluation of testing impact on the plant; (3) acceptance criteria; (4) test equipment; (5) procedures; (6) jumper/lifted lead controls; (7) test data; (8) testing frequency and method demonstrated Technical Specification operability; (9) test equipment removal; (10) restoration of plant systems; (11) fulfillment of ASME Code requirements; (12) updating of performance indicator data; (13) engineering evaluations, root causes, and bases for returning tested structures, systems, and components not meeting the test acceptance criteria were correct; (14) reference setting data; and (15) annunciators and alarms setpoints. The inspectors also verified that the licensee identified and implemented any needed corrective actions associated with the surveillance testing.

- April 24, 2006: Surveillance Procedure STA-001-001, "Containment Air Lock Door Seal Leakage Test," Revision 4. This surveillance verified that the containment air lock door seal leakage is less than an acceptable value.
- May 2, 2006: Maintenance Procedure MM-007-033, "IST Safety and Relief Valve Bench Testing and Maintenance," Revision 0. This surveillance verified that the chemical and volume control relief Valve CVC-192A set pressure was correctly set.
- May 3, 2006: Surveillance Procedure ME-003-110 "Fire Pump Diesel Starting Battery (Quarterly)," Revision 7. This procedure provided instructions to ensure operability of starting batteries and associated chargers for diesel fire Pump 1.
- June 23, 2006: Surveillance Procedure OP-903-046, "Emergency Feed Pump Operability Check," Revision 15. This surveillance verified operability of emergency feedwater Pump A/B.

Documents reviewed by the inspectors are listed in the attachment. The inspectors completed four samples.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01)

a. Inspection Scope

The Waterford Unit 3 2005 Biennial Emergency Preparedness Exercise, originally scheduled for December 7, 2005, was deferred until June 28, 2006, as a result of the impact of Hurricane Katrina (see letter from M. Fields, Project Manager, to J. Venable, Vice President Operations, dated December 13, 2005, ML0534705240). The inspectors reviewed the objectives and scenario for the biennial emergency plan exercise to

determine if the exercise would acceptably test major elements of the emergency plan. The scenario simulated a tornado in Owner Controlled Area, a ground on an electrical switchgear causing a fire, a failure of both the automatic and manual reactor protection system following damage to a reactor coolant pump, loss of condenser vacuum, failure of two charging pumps, loose parts in a steam generator followed by steam generator tube rupture, fission product barrier failures, core damage, and a radiological release to the environment via an open main steam safety valve, to demonstrate the licensee's capabilities to implement the emergency plan.

The inspectors evaluated exercise performance by focusing on the risk-significant activities of event classification, offsite notification, recognition of offsite dose consequences, and development of protective action recommendations, in the Simulator Control Room and the following dedicated emergency response facilities:

- Technical Support Center
- Operations Support Center
- Emergency Operations Facility

The inspectors also assessed recognition of and response to abnormal and emergency plant conditions, the transfer of decision making authority and emergency function responsibilities between facilities, onsite and offsite communications, protection of emergency workers, emergency repair evaluation and capability, and the overall implementation of the emergency plan to protect public health and safety and the environment. The inspectors reviewed the current revision of the facility Emergency Plan and emergency plan implementing procedures associated with operation of the above facilities and performance of the associated emergency functions. These procedures are listed in the attachment to this report.

The inspectors compared the observed exercise performance with the requirements in the facility Emergency Plan, 10 CFR 50.47(b), 10 CFR 50 Appendix E, and with the guidance in the emergency plan implementing procedures and other federal guidance.

The inspectors attended the postexercise critiques in each of the above facilities to evaluate the initial licensee self-assessment of exercise performance. The inspectors also attended a subsequent formal presentation of critique items to plant management.

The inspectors completed one sample during the inspection.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspector performed an in-office review of Revision 20-4 of Emergency Plan Implementing Procedure EP-01-001, "Recognition and Classification of Emergency Conditions," received April 16, 2006. This revision deleted two emergency action levels

related to site protection, which were redundant to those the licensee implemented in accordance with NRC Bulletin 2005-002, "Emergency Preparedness and Response Actions for Security-Based Events."

The revision was compared to its previous revision, to the criteria of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, to NRC Bulletin 2005-002, and to the requirements of 10 CFR 50.47(b) and 50.54(q) to determine if the licensee adequately implemented 10 CFR 50.54(q). This review was not documented in a Safety Evaluation Report and did not constitute approval of licensee changes, therefore these changes are subject to future inspection.

The inspector completed one sample during this inspection.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

For the one drill and simulator-based training evolutions contributing to Drill/Exercise Performance and Emergency Response Organization Performance Indicators listed below, the inspectors: (1) observed the training evolution to identify any weaknesses and deficiencies in classification, notification, and Protective Action Requirements development activities; (2) compared the identified weaknesses and deficiencies against licensee-identified findings to determine whether the licensee is properly identifying failures; and (3) determined whether licensee performance is in accordance with the guidance of the NEI 99-02, "Voluntary Submission of Performance Indicator Data," acceptance criteria.

- May 11, 2006: The simulator based drill involving an anticipated transient without scram resulting in a site area emergency due to reactor coolant system leakage greater than available charging pump capacity.

Documents reviewed by the inspectors included:

- Simulator Scenario Number E-47 list of events and event objectives
- Operations Procedure OP-902-000, "Standard Post Trip Actions," Revision 10
- Operations Procedure OP-902-002, "Loss of Coolant Accident Recovery Procedure," Revision 11
- Emergency Planning Procedure EP-001-001, "Recognition and Classification of Emergency Conditions," Revision 20

The inspectors completed one sample.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

a. Inspection Scope

This area was inspected to assess the licensee's performance in implementing physical and administrative controls for airborne radioactivity areas, radiation areas, high radiation areas, and worker adherence to these controls. The inspector used the requirements in 10 CFR Part 20, the Technical Specifications, and the licensee's procedures required by Technical Specifications as criteria for determining compliance. During the inspection, the inspector interviewed the radiation protection manager, radiation protection supervisors, and radiation workers. The inspector performed independent radiation dose rate measurements and reviewed the following items:

- Performance indicator events and associated documentation packages reported by the licensee in the Occupational Radiation Safety Cornerstone
- Controls (surveys, posting, and barricades) of three high radiation areas
- Self-assessments, audits, licensee event reports, and special reports related to the access control program since the last inspection
- Corrective action documents related to access controls
- Radiation work permit (or Radiation exposure permit) briefings and worker instructions
- Posting and locking of entrances to all accessible high dose rate - high radiation areas and very high radiation areas
- Radiation worker and radiation protection technician performance with respect to radiation protection work requirements

The inspector completed 11 of the required 21 samples.

b. Findings

No findings of significance were identified.



## 2OS2 ALARA Planning and Controls (71121.02)

### a. Inspection Scope

The inspector assessed licensee performance with respect to maintaining individual and collective radiation exposures as low as reasonably achievable (ALARA). The inspector used the requirements in 10 CFR Part 20 and the licensee's procedures required by Technical Specifications as criteria for determining compliance. The inspector interviewed licensee personnel and reviewed:

- Current 3-year rolling average collective exposure
- Site specific trends in collective exposures, plant historical data, and source-term measurements
- Site specific ALARA procedures
- Interfaces between operations, radiation protection, maintenance, maintenance planning, scheduling, and engineering groups
- Integration of ALARA requirements into work procedure and radiation work permit (or radiation exposure permit) documents
- Person-hour estimates provided by maintenance planning and other groups to the radiation protection group with the actual work activity time requirements
- Dose rate reduction activities in work planning
- Assumptions and basis for the current annual collective exposure estimate, the methodology for estimating work activity exposures, the intended dose outcome, and the accuracy of dose rate and man-hour estimates
- Workers use of the low dose waiting areas
- Records detailing the historical trends and current status of tracked plant source terms and contingency plans for expected changes in the source term due to changes in plant fuel performance issues or changes in plant primary chemistry
- Source-term control strategy or justifications for not pursuing such exposure reduction initiatives
- Specific sources identified by the licensee for exposure reduction actions and priorities established for these actions, and results achieved against since the last refueling cycle
- Radiation worker and radiation protection technician performance during work activities in radiation areas, airborne radioactivity areas, or high radiation areas
- Declared pregnant workers during the current assessment period, monitoring controls, and the exposure results



- Self-assessments, audits, and special reports related to the ALARA program since the last inspection
- Corrective action documents related to the ALARA program and follow-up activities such as initial problem identification, characterization, and tracking
- Effectiveness of self-assessment activities with respect to identifying and addressing repetitive deficiencies or significant individual deficiencies

The inspector completed 9 of the required 15 samples and 8 of the optional samples.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspector sampled licensee submittals for the performance indicators listed below for the period from October 2005 through March 2006. To verify the accuracy of the performance indicator data reported during that period, performance indicator definitions and guidance contained in NEI 99-02, "Regulatory Assessment Indicator Guideline," Revision 2, were used to verify the basis in reporting for each data element.

Occupational Radiation Safety Cornerstone

Occupational Exposure Control Effectiveness Performance Indicators

Licensee records reviewed included corrective action documentation that identified occurrences in high radiation areas with dose rates greater than 1,000 millirem per hour at 30 centimeters (as defined in Technical Specifications), very high radiation areas (as defined in 10 CFR 20.1003), and unplanned personnel exposures (as defined in NEI 99-02). Additional records reviewed included as low as reasonably achievable records and whole-body counts of selected individual exposures. The inspector interviewed licensee personnel that were accountable for collecting and evaluating the performance indicator data. In addition, the inspector toured plant areas to verify that high radiation and very high radiation areas were properly controlled.

The inspector completed the required sample (1) in this cornerstone.

Public Radiation Safety Cornerstone

Radiological Effluent Technical Specification/Offsite Dose Calculation Manual  
Radiological Effluent Occurrences

Licensee records reviewed included corrective action documentation that identified occurrences for liquid or gaseous effluent releases that exceeded performance indicator

thresholds and those reported to the NRC. The inspector interviewed licensee personnel that were accountable for collecting and evaluating the performance indicator data.

The inspector completed the required sample (1) in this cornerstone.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Identification and Resolution of Problems

The inspectors performed a daily screening of items entered into the licensee's corrective action program. This assessment was accomplished by reviewing condition reports and attending corrective action review and work control meetings. The inspectors: (1) verified that equipment, human performance, and program issues were being identified by the licensee at an appropriate threshold and that the issues were entered into the corrective action program; (2) verified that corrective actions were commensurate with the significance of the issue; and (3) identified conditions that might warrant additional follow-up through other baseline inspection procedures.

.2 Selected Issue Follow-up Inspection

In addition to the routine review, the inspectors selected the one system listed below for a more in-depth review. The inspectors considered the following during the review of the licensee's actions: (1) complete and accurate identification of problems in a timely manner; (2) evaluation and disposition of operability/reportability issues; (3) consideration of extent of condition, generic implications, common cause, and previous occurrences; (4) classification and prioritization of the resolution of the problem; (5) identification of root and contributing causes of the problem; (6) identification of corrective actions; and (7) completion of corrective actions in a timely manner.

C June 17, 2006: Emergency Diesel Generator Starting Air

b. Findings

Introduction. The inspectors identified a Green violation of 10 CFR Part 50 Appendix B, Criterion III, "Design Control." In September 2003, the NRC identified that the emergency diesel generator starting air system was incapable of supplying sufficient air to start its respective emergency diesel generator a minimum of five times without being recharged. To date, the licensee has failed to take corrective actions in a timely manner to address this deficiency and restore compliance.

Discussion. On October 7, 2003, NRC Inspection Report 05000382/2003006 documented a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for failing to maintain each emergency diesel generator starting air receiver pressure capable of starting the diesel engine five times as required by the Updated Final Safety Analysis Report. The inspectors noted that each air receiver was maintained at a

nominal operating pressure less than the lowest pressure that qualified each receiver to start the diesel five times. Entergy documented the inadequate diesel generator starting air system capacity as a Generic Letter 91-18 issue, established administrative controls to manage the nonconformance, and initially decided to resolve the issue by submitting a Technical Specification Change Request to the NRC for approval. The starting air system nonconformance was not resolved as scheduled due to licensing department personnel changes and technical and regulatory issues associated with finalizing the Technical Specification Change Request. To date, Entergy has not submitted a Technical Specification Change Request to the NRC for approval.

Procedure EN-LI-108, "Operating License Amendments," states that administrative controls do not alleviate the need to revise the Technical Specification and that a Technical Specification Change Request should be requested in a timely manner, commensurate with its safety significance.

Entergy also considered modifying the starting air system to increase the receiver operating pressure, installing larger air receivers, and providing a calculation to justify a four start capability as a technical justification for an exemption to the Standard Review Plan, "9.5.6 Emergency Diesel Engine Starting System," five start requirement. Entergy rejected increasing the receiver operating pressure and installing larger air receivers for technical reasons. On January 18, 2006, Entergy performed a starting air system test that demonstrated the capability of the A2 air receiver to start emergency diesel generator Train A four times. Calculation ECM98-017, "Diesel Generator Starting Air Receiver Pressure Process Limit," analyzed the January 2006 test results and the May 1983 preoperational test results and concluded that the starting air system had a five start capability based on the air mass consumption per start excluding starting air system pressure decay between successive starts due to system leakage. The inspectors reviewed Calculation ECM98-017 and determined, in part, that the system did not demonstrate a five start capacity per the Standard Review Plan because (1) system air leakage is an integral part of any air start test and its effects must be accounted for in the test program; (2) Entergy's analysis did not account for changes to the emergency diesel generator rolling resistance to starting during 23 years of operation; and (3) the starting air system was tested at 85EF, but Calculation ECM98-017 did not account for the reduced air mass in the air receiver at the emergency diesel generator design room temperature of 120EF.

NRC Inspection Manual, Part 9900, "Operability Determinations and Functionality Assessments for Resolution of Degraded and Nonconforming Conditions Adverse to Quality or Safety," provides a standard to disposition degraded and nonconforming conditions. Part 9900 states that a degraded or nonconforming condition should be resolved at the first available opportunity unless an appropriate evaluation justifies a longer completion schedule. Since September 2003 Entergy has failed to either: (1) demonstrate a successful five starts capability of the emergency diesel generator starting air system; (2) change their licensing or design basis to a four start capability; or (3) make effective plant modifications to obtain a five start capacity such as increasing the starting air receiver set point pressure or increasing the size of the system's air receivers. Entergy has exceeded its established completion dates to resolve this issue several times. These failures constitute a performance deficiency.

Analysis. The failure to take prompt corrective measures to reestablish full qualification of the emergency diesel generator starting air system by some means is a performance deficiency. This finding is greater than minor because it affected the mitigating system

cornerstone objective due to the degradation of the design-basis capability of the starting air system. This finding has a crosscutting aspect in the corrective action component of the problem identification and resolution area because the licensee failed to take actions to address safety issues in a timely manner. The finding was determined to be of very low safety significance because the deficiency did not represent an actual loss of the starting air system safety function. Additionally, surveillance testing has demonstrated the capability of each diesel generator to start within the required 10 seconds.

Enforcement. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that The Code of Federal Regulations, Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that applicable regulatory requirements and the design basis for systems to which Appendix B applies are correctly translated into specifications, procedures, and instructions. The Final Safety Analysis Report requires that the diesel generator air start system be capable of providing sufficient air capacity to start each diesel generator a minimum of five times. Contrary to the above, the licensee failed to translate into specifications, procedures, and instructions the design criteria for the diesel generator air start system. This resulted in the failure to maintain each diesel generator air receiver capable of starting the diesel engine five times as required since September 2003, when the NRC identified that the emergency diesel generator starting air system capacity was inadequate to meet the design basis. The licensee has failed to take corrective actions to resolve the problem and restore compliance with the design basis. As a result, this violation is being cited in accordance with VIA.1.a of the NRC Enforcement Policy. This issue was documented in the licensee's corrective action program as Condition Report CR-WF3-2003-2502 (VIO 50-382/2006003-01, Untimely Actions to Restore Design Basis Compliance of the Emergency Diesel Generator Starting Air System).

Documents reviewed by the inspectors are listed in the attachment.

### .3 Semiannual Trend Review

#### a. Inspection Scope

As required by Inspection Procedure 71152, Identification and Resolution of Problems, the inspectors performed a review of the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review focused on repetitive equipment issues, but also considered the results of screening the corrective action program, self-assessment reports, control room logs, quality assurance audits, Maintenance Rule assessments, and department self-assessments to determine if additional adverse trends existed. The inspectors compared and contrasted their results with the results contained in Entergy's latest quarterly trend reports. For those areas where trends were documented in the corrective action program, the inspectors verified that Entergy had corrective actions planned or in place to address the trend. The inspectors also evaluated the corrective actions against Entergy's procedural requirements of Procedure LI-102, "Corrective Action Program." The inspectors' review nominally considered the 6-month period of July through December 2005.

b. Findings and Observations

No findings of significance were identified. The inspectors concluded that, in general, Entergy had adequately identified trends associated with steam leaks in the steam generator secondary systems.

.4 Radiation Safety

a. Inspection Scope

The inspector evaluated the effectiveness of the licensee's problem identification and resolution process with respect to the following inspection areas:

- Access Control to Radiologically Significant Areas (Section 2OS1)
- ALARA Planning and Controls (Section 2OS2)

b. Findings

No findings of significance were identified.

4OA5 Other Activities

1. Implementation of Temporary Instruction TI 2515/165 - Operational Readiness of Offsite Power and Impact on Plant Risk

a. Inspection Scope

The objective of TI 2515/165, "Operational Readiness of Offsite Power and Impact on Plant Risk," was to gather information to support the assessment of nuclear power plant operational readiness of offsite power systems and impact on plant risk. During this inspection, the inspectors interviewed licensee personnel, reviewed licensee procedures, and gathered information for further evaluation by the Office of Nuclear Reactor Regulation.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

Exit Meeting Summary

- .1 On May 19, 2006, the inspector conducted a telephonic exit meeting to present the emergency action level and emergency plan changes inspection results to Mr. J. Lewis, Manager, Emergency Preparedness, who acknowledged the findings. The inspector confirmed that proprietary information was not provided or examined during the inspection.

- .2 On June 22, 2006, the inspector presented the ALARA inspection results to Mr. J. Venable, Vice President, Nuclear, and other members of the staff who acknowledged the findings. The inspector confirmed that proprietary information was not provided or examined during the inspection.
- .3 On June 30, 2006, the inspectors presented the results of the emergency preparedness exercise inspection to Mr. K. Walsh, General Manager, Plant Operations, and other members of his staff who acknowledged the findings. The lead inspector confirmed that proprietary information was not provided or examined during the inspection.
- .4 On July 11, 2006, the resident inspectors presented the inspection results to Mr. B. Williams, Director, Engineering, and other members of management. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

#### 4OA7 Licensee Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a noncited violation.

- 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," requires that work on safety-related structures, systems, and components be completed in accordance with appropriate instructions to ensure the structures, systems, and components will perform satisfactorily when placed in service. Contrary to this requirement, work to land the B phase lead on a 480 VAC molded case circuit breaker was not properly performed and verified in accordance with Testing Procedure ME-007-002, "Molded Case Circuit Breakers." To correct the improperly terminated B phase lead, the licensee entered Technical Specification shutdown action statements that affected several trains of Alpha safety-related equipment. The finding was greater than minor because the finding is associated with a degraded condition that could concurrently influence mitigation equipment and an initiating event. The finding was of very low safety significance because it did not represent an actual event that upset plant stability or challenge critical safety functions, and the affected structures, systems, and components were inoperable for less time than the allowed Technical Specification outage time. This deficiency was identified in Entergy's corrective action program as Condition Report CR-WF3-2006-0746. See Section 1R14 for additional details.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

S. Anders, Superintendent, Plant Security  
J. Brawley, ALARA Coordinator, Radiation Protection  
L. Dauzat, Operations, Supervisor Radiation Protection  
C. Fugate, Assistant Manager, Operations (Shift)  
B. Goldman, ALARA Refuel Planner, Radiation Protection  
J. Laque, Manager, Maintenance  
J. Lewis, Manager, Emergency Preparedness  
M. Mason, Licensing Representative  
R. Murillo, Manager, Licensing  
O. Pipkins, Senior Staff Engineer, Licensing  
R. Putnam, Manager, Programs and Components  
J. Ridgel, Acting Director, Nuclear Safety Assurance  
R. Peters, Director, Planning and Scheduling  
B. Pilutti, Manager, Radiation Protection  
G. Scott, Licensing Engineer  
J. Venable, Vice President, Operations  
K. Walsh, General Manager, Plant Operations  
B. Williams, Director, Engineering

#### **NRC**

D. Graves, Chief, Project Branch E  
J. Keeton, Consultant  
M. Mendoza, Engineering Associate



## ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

50-382/2006003-01	VIO	Untimely Actions to Restore Design Basis Compliance of the Emergency Diesel Generator Starting Air System (Section 4OA2)
-------------------	-----	--

## LIST OF DOCUMENTS REVIEWED

### Section 1RO4: Equipment Alignment (71111.04)

#### Procedures

NUMBER	TITLE	REVISION
OP-002-003	Component Cooling Water System	14
ME-004-115	4.16 KV G.E. Magna-Blast Breaker	12
ME-003-327	4.16/6.9 KV Magna-Blast Operating Mechanism Overhaul	1
OP-009-002	Emergency Diesel Generator	19

#### Miscellaneous Documents

NUMBER	TITLE/SUBJECT	REVISION
MNQ6-27	NPSH Calculation for the HPSI and CS Pumps	4
OP-009-008	Safety Injection System	18
Information Notice 91-13	Inadequate Testing of Emergency Diesel Generators	
W3-DBD-001	Safety Injection System	3

#### Condition Reports

2006-437, 687, 756, 982, 1051, 1429, 1434, 1439, 1444



**Section 1R05: Fire Protection (71111.05)**Procedure

NUMBER	TITLE	REVISION
Administrative Procedure UNT-005-013	Fire Protection Program	9
Operating Procedure 009-004	Fire Protection	11-8
Maintenance Procedure MM-007-010	Fire Extinguisher Inspection and Extinguisher Replacement	13
Administrative Procedure UNT-005- 013	Fire Protection Program	9
Fire Protection Procedure FP-001- 015	Fire Protection System Impairments	17
Training Manual Procedure NTP-202	Fire Protection Training	11-4

**Section 1R07: Heat Sink Performance (71111.07)**Miscellaneous Documents

NUMBER	TITLE/SUBJECT	REVISION
EPRI TR-107397	Service Water Heat Exchanger Testing Guidelines	March 1998

Work Order

13173

**Section 1R12: Maintenance Effectiveness (71111.12)**Procedures

NUMBER	TITLE	REVISION
DC-121	Maintenance Rule	1
NUMARC 93-01	Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	3

#### Condition Reports

CR-WF3-2004-1945	CR-WF3-2005-3162	CR-WF3-2005-4943
CR-WF3-2004-2051	CR-WF3-2006-1755	CR-WF3-2006-0185
CR-WF3-2004-2517	CR-WF3-2006-0717	CR-WF3-2006-1035
CR-WF3-2004-2933	CR-WF3-2006-1756	CR-WF3-2005-4936
CR-WF3-2005-2598	CR-WF3-2006-1415	CR-WF3-2006-1562
CR-WF3-2005-1315	CR-WF3-2005-1075	CR-WF3-2005-3498

#### **Section 1R14: Operator Response to NonRoutine Events (71111.14)**

##### Miscellaneous Documents

NUMBER	TITLE/SUBJECT	REVISION
EN-OP-111	Operational Decision Making Instruction (ODMI)Process	1
EN-IS-123	Electrical Safety	1

#### Condition Reports

CR-WF3-2006-0746

#### Work Order

00012273

#### **Section 1R15: Operability Evaluations (71111.15)**

##### Procedures:

NUMBER	TITLE	REVISION
STI-W3-2005-0005	Emergency Diesel Generator A2 Starting Air Receiver Capacity Test	0
OP-009-002	Emergency Diesel Generator	19
OP-901-524	Fire in Areas Affecting Safe Shutdown	0
Draft Regulatory Guide DG-1136	Demonstrating the Feasibility and Reliability of Operator Manual Actions in Response to Fire	February 2005
Regulatory Issue Summary 2005-30	Clarification of Post-Fire Safe-Shutdown Circuit Regulatory Requirements	December 2005

Condition Reports

CR-WF3-2006-1495  
CR-WF3-2006-1660

CR-WF3-2005-4943  
CR-WF3-2001-1284

CR-WF3-2001-0782  
CR-WF3-2006-1735

**Section 1R17: Permanent Plant Modifications (71111.17)**

Miscellaneous Documents

NUMBER	TITLE/SUBJECT	REVISION
1564-3311	19FA Electronic Controls	14

Condition Reports

CR-WF3-1997-1985  
CR-WF3-1997-2509

CR-WF3-2006-0421  
CR-WF3-1998-1032

CR-WF3-2006-0952

Work Orders

WA 01162451

**Section 1R19: Postmaintenance Testing (71111.19)**

Procedures:

NUMBER	TITLE	REVISION
OP-903-052	Controlled Ventilation Area System Operability Check	9
OP-903-118	Primary Auxiliaries IST Valve Tests	6
ME-007-050	Electroswitch Control/Latching Relay	5
ENS-MA-114	Post Maintenance Testing	5
EN-MA-101	Conduct of Maintenance	1
ME-004-142	480 Volt G.E. AKR-30/AKR-50 Breaker Overhaul	3
CEP-IST-1	IST Bases Document	3

Condition Reports

CR-WF3-1999-0063

CR-WF3-2006-1308

Work Orders

25187, 65416, 65353

**Section 1R22: Surveillance Testing (71111.22)**

Procedure

NUMBER	TITLE	REVISIONS
MM-007-033	IST Safety and Relief Valve Bench Testing and Maintenance	0
STA-001-001	Containment Air Lock Door Seal Leakage Test	4
ME-003-110	Fire Pump Diesel Starting Battery (Quarterly)	7
OP-903-046	Emergency Feed Pump Operability Check	Revision 15
ME-003-110	Fire Pump Diesel Starting Battery (Quarterly)	7
MM-007-033	IST Safety and Relief Valve Bench Testing and Maintenance	0
OP-903-011	High Pressure Safety Injection Pump Preservice Operability Check	9
CEP-IST-1	IST Bases Document	3

Work Order

51040121, 51024833, 51020508, 51021167, 5101888, 51028329

**Section 1EP1 (71114.01)**

EP-001-001, "Recognition and Classification of Emergencies," Revision 19

EP-002-010, "Notifications and Communications," Revision 29

EP-002-015, "Emergency Responder Activation," Revision 8

EP-002-052, "Protective Action Guidelines," Revision 18

EP-002-071, "Site Protective Measures," Revision 18

EP-002-100, "Technical Support Center Activation and Deactivation," Revision 32

EP-002-101, "Operational Support Center Activation, Operation, and Declaration," Revision 27

EP-002-030, "Emergency Radiation Exposure Guidelines & Controls," Revision 9

EP-002-033, "Administration of Iodine Blocking Agents," Revision 9

EP-002-130, "Emergency Team Assignments," Revision 20

OP-901-524, "Fire in Areas Affecting Safe Shutdown," Revision 0

Waterford 3 Emergency Plan, Revision 32

### **Section 2OS1: Access Controls to Radiologically Significant Areas (71121.01)**

#### **Corrective Action Documents**

2005-04971, 2006-00126, 2006-00235

#### **Radiation Work Permits**

1915 RF-13, Remove and Replace LPRMs, Including Support Activities

1921 RF-13, Flow Control Valve Maintenance, Including Support Activities

1929 RF-13, Recirc Pump Work, Including Support Activities

#### **Procedures**

HP-001-107, High Radiation Area Access Control, Revision 18

HP-001-123, Plant Conditions and Radiological Concerns, Revision 3

ENN-RP-108, Radiation Protection Posting, Revision 4

### **Section 2OS2: ALARA Planning and Controls (71121.02)**

#### **Corrective Action Documents**

2005-04630, 2005-04820, 2005-04860, 2005-04898, 2005-05010, 2005-05066  
2006-00008, 2006-00060, 2006-00293, 2006-00468, 2006-00674

#### **Procedures**

ENS-RP-105, Radiation Work Permits, Revision 7

UNT-001-016, Radiation Protection, Revision 1

ENS-RP-110, ALARA Program, Revision 2

ENS-RP-102, Radiological Control, Revision 0

ENS-RP-109, Hot Spot Program, Revision 2

HP-001-114, Control of Temporary Shielding, Revision 9

RP-205, Prenatal Monitoring, Revision 2

#### **Audits and Assessments**

WLO-2006-00040, ALARA Pre-NRC Inspection Assessment

LO-WLO-2005-0005-01, ALARA Planning and Controls

WLO-2005-00053, Radiation Protection Organizational Effectiveness

Five Year ALARA Plan, 2006 - 2010

## Radiation Work Permits

RWP-2006-0011, Declared Pregnant Females  
RWP-2006-0005, Tours and Inspections  
RWP-2006-0064, Containment Entry at Power

## **Section 4OA1: Performance Indicator Verification (71151)**

### Procedures

EN-LI-114, Performance Indicator Process, Revision 1

### Miscellaneous Documents

Batch Release Summary Information for 2005

Batch Release Summary Information for 2006

NRC Performance Indicator Technique Sheet for RETS/ODCM Radiological Effluent Occurrences, dated 1/09/6 and 4/04/06

NRC Performance Indicator Technique Sheet for Occupational Exposure Control Effectiveness dated 1/11/06 and 4/06/06

## **Section 4OA2: Identification and Resolution of Problems**

### Procedure

NUMBER	TITLE	REVISIONS
Standard Review Plan 9.5.6	Emergency Diesel Engine Starting System	0
ECM98-017	Diesel Generator Starting Air Receiver Pressure Process Limit	0
EN-LI-103	Operating License Amendment	0
STI-W3-2005-00	Emergency Diesel Generator A2 Starting Air Receiver Capacity Test	0
EN-LI-113	Licensing Basis Document Change Process	1
MM-007-033	IST Safety and Relief Valve Bench Testing and Maintenance	0

### Condition Reports

CR-WF3-2006-1537	CR-WF3-2006-1457	CR-WF3-2004-3891
CR-WF3-2006-1633	CR-WF3-2003-2502	CR-WF3-2005-4712
CR-WF3-2005-3983	CR-WF3-2006-1342	CR-WF3-2006-1459
CR-WF3-2006-1340	CR-WF3-2006-1459	CR-WF3-2004-1945

CR-WF3-2004-2051  
CR-WF3-2004-2517  
CR-WF3-2004-2933  
CR-WF3-2005-2598  
CR-WF3-2005-1315  
CR-WF3-2005-3162  
CR-WF3-2006-1755

CR-WF3-2006-0717  
CR-WF3-2006-1756  
CR-WF3-2006-1415  
CR-WF3-2005-1075  
CR-WF3-2005-4943  
CR-WF3-2006-0185  
CR-WF3-2006-1035

CR-WF3-2005-4936  
CR-WF3-2006-1562  
CR-WF3-2005-3498  
CR-WF3-2003-2502  
CR-WF3-2005-4712

#### Miscellaneous Documents

NUMBER	TITLE/SUBJECT	REVISION
	Waterford Quarterly Trend Report 1 <sup>st</sup> Quarter 2006	0
	Waterford Quarterly Trend Report 4 <sup>th</sup> Quarter 2005	0

#### Work Order

51040121, 51024833, 51020508, 51021167, 5101888, 51028329

#### **LIST OF ACRONYMS**

NRC	Nuclear Regulatory Commission
PDR	Public Document Room
CFR	Code of Federal Regulations
NRR	Nuclear Reactor Regulation, Office of (NRC)
ASME Code	American Society of Mechanical Engineers Boiler and Pressure Vessel Code
ALARA	As low as reasonably achievable