UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

January 22, 2001

Charles M. Dugger, Vice President
Operations - Waterford 3
Entergy Operations, Inc.
17265 River Road
Killona, Louisiana 70066-0751

SUBJECT: NRC INSPECTION REPORT 50-382/00-12

Dear Mr. Dugger:

This refers to the routine resident inspection conducted on November 19 through December 30, 2000, and the emergency preparedness inspection conducted on December 4-8, 2000, at the Waterford Steam Electric Station, Unit 3, facility. The enclosed report presents the results of this inspection. The results of the emergency preparedness inspection were discussed with you and your staff on December 8, 2000, and the results of the routine resident inspection were discussed with you and your staff on January 4, 2001.

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.

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, 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/NRC/ADAMS/index.html (the Public Electronic Reading Room).

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

Sincerely,

/RA/

William B. Jones, Chief
Project Branch E
Division of Reactor Projects

Docket: 50-382
License: NPF-38

Enclosure:
NRC Inspection Report
50-382/00-12

cc w/enclosure:
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Only inspection reports to the following:
Scott Morris **(SAM1)**
NRR Event Tracking System **(IPAS)**
WAT Site Secretary **(AHY)**
Dale Thatcher **(DFT)**

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1/19/01	1/19/01	1/19/01	1/19/01	1/22/01

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket:	50-382
License:	NPF-38
Report:	50-382/00-12
Licensee:	Entergy Operations, Inc.
Facility:	Waterford Steam Electric Station, Unit 3
Location:	Hwy. 18 Killona, Louisiana
Dates:	November 19 through December 30, 2000
Inspectors:	T. R. Farnholtz, Senior Resident Inspector J. M. Keeton, Resident Inspector W. A. Maier, Senior Emergency Preparedness Inspector
Approved By:	W. B. Jones, Chief, Project Branch E

ATTACHMENTS:

Attachment 1:	Supplemental Information
Attachment 2:	NRC's Revised Reactor Oversight Process

SUMMARY OF FINDINGS

Waterford Steam Electric Station, Unit 3
NRC Inspection Report 50-382/00-12

IR05000382-00-12; on 11/19-12/31/00; Entergy Operations, Inc.; Waterford Steam Electric Station; Unit 3; Integrated Resident & Regional Report. No findings of significance were identified.

The report covers a 6-week period of resident inspection and an announced inspection by an emergency preparedness inspector. The significance of issues is indicated by their color (green, white, yellow, or red) and was determined by the significance determination process in Inspection Manual Chapter 0609.

Report Details

Summary of Plant Status: At the beginning of this inspection period, the plant was at approximately full power following completion of Refueling Outage 10. The plant remained at that level until December 15, 2000, when power was reduced to approximately 93 percent to perform turbine valve testing. The plant was returned to full power on December 16 and remained at that level for the remainder of this inspection period.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspectors reviewed appropriate plant documents for the freeze protection systems installed throughout the plant and temporary shelters that had been constructed around systems subject to freezing. The inspectors also reviewed Operating Procedure OP-002-007, "Freeze Protection and Temperature Maintenance," Revision 10, and walked down the temporary shelters to verify that the scaffolding support structures did not interfere with safety-related components. The inspectors also verified that operators were performing daily inspections of the affected systems.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors reviewed the mechanical and electrical alignments of Charging Pumps A and AB, which were operable while Charging Pump B was out of service for scheduled maintenance. The alignment was verified according to Operating Procedure OP-002-005, "Chemical and Volume Control," Revision 15.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors conducted tours, assessed the material condition of the fire detection and suppression systems, and verified that combustible materials were appropriately controlled in the following areas:

- Emergency diesel generator rooms

- Reactor auxiliary building wing areas and the fuel handling building

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors verified proper implementation of the maintenance rule to assess the effectiveness of maintenance efforts. This included verification of structure and component scope, characterization, safety significance, performance criteria, and the appropriateness of goals and corrective actions. Specifically, the inspectors:

- Reviewed the application of the maintenance rule scope for the hotwell makeup and dump systems. The Final Safety Analysis Report, probabilistic risk assessment insights, system availabilities, and Condition Report 2000-1559 were used to verify the 10 CFR 50.65, Maintenance Rule (a)(2) performance criteria category classification. No maintenance preventable functional failures were identified.

- Reviewed the maintenance history and corrective action reports for the main feedwater system. Discussions were also held with the cognizant system engineer to verify the maintenance rule scope for this system had been appropriate. Condition Report 2000-1564 identified repeat failures of feedwater isolation valve and feedwater regulating valve air accumulators. The inspectors verified that the main feedwater system 10 CFR 50.65 (a)(1) category classification was appropriate based on the operational history. The recovery plan was reviewed to assure that the conditions which resulted in the (a)(1) classification were addressed.

- Interviewed the engineer responsible for preparation and implementation of 10 CFR 50.65, paragraph (a)(4), to verify it had been implemented within the period required. The inspectors reviewed the applicable documentation, including Administrative Procedure W2.502, “Configuration Risk Management Program Implementation,” Revision 0; Design Engineering Guide S&EA-1-200, “PSA Model Control,” Revision 1; and Operating Instruction OI-037-000, “Operations’ Risk Assessment Guideline,” Revision 0.

b. Findings

No findings of significance were identified.

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

.1 Emergent Maintenance on Essential Chiller AB

a. Inspection Scope

The inspectors interviewed the operators and reviewed the troubleshooting plan to address the unexpected trip on high motor compressor temperature to determine the extent of work planned. The inspectors verified that the appropriate assessments had been conducted and factored into the work schedules.

b. Findings

No findings of significance were identified.

.2 Emergent Maintenance on Essential Chiller AB

a. Inspection Scope

The inspectors interviewed the operators and engineers regarding the Essential Chiller AB failure to start on December 16, 2000. Condition Report 2000-1632 was written to address the failure. The inspectors reviewed Maintenance Action Item 423472 and verified that the appropriate risk assessments had been conducted and factored into the work schedule.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the licensee's reactor coolant pump oil leakage operability evaluation documented in Condition Report CR 00-1591, "Reactor Coolant Pump 2A Oil Leakage." The operability evaluation addressed two issues: (1) continued pump operation with oil leakage from the upper part of the motor and (2) fire hazard concerns from oil not captured by the oil recovery system.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed:

- Maintenance Action Item 414283 that authorized replacement of the Charging Pump A control switch knob on the main control board. This component was replaced as part of a corrective action plan to replace knobs that had been cleaned with a chemical that caused them to become brittle and fail. The inspectors observed portions of the maintenance activity involved with the switch replacement and the postmaintenance testing. The inspectors verified that lessons learned from previous activities that resulted in the control switch operating characteristics being altered had been appropriately addressed.

- Postmaintenance testing conducted on Essential Chiller AB and associated components. Troubleshooting and corrective maintenance was performed on the essential chiller as a result of its failure to run. The postmaintenance testing performed included verifying the system operation and a walkdown and inspection of the pump and associated piping.

- Postmaintenance testing conducted on Reactor Trip Breakers 1 and 5. Corrective maintenance had been performed on this equipment following routine maintenance during operation. The postmaintenance testing was performed in accordance with Operating Procedure OP-903-127, “Reactor Trip Breaker Post-Maintenance Retest,” Revision 2.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed:

- Portions of the Emergency Diesel Generator B surveillance test performed on December 11, 2000. The test was conducted in accordance with Operating Procedures OP-903-068, “Emergency Diesel Generator and Subgroup Relay Operability Verification,” Revision 12, and OP-009-002, “Emergency Diesel Generator,” Revision 17.

- The prejob operator briefing and performance of the Containment Spray Pump A operability check. The test was performed in accordance with Surveillance

Procedure OP-903-035, “Containment Spray Pump Operability Check,” Revision 11. The inspectors reviewed the data sheets and verified established criteria had been met.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed Engineering Request ER-W3-00-1063-00-0, “RCP 2A Speed Probe Leak Repair.” The purpose of this temporary modification was to stop oil leakage from the speed probe flange, which had not been appropriately sealed during installation. The temporary alteration was performed in accordance with Procedure UNT-005-004, “Temporary Alteration Control,” Revision 14, and the appropriate work instructions.

b. Findings

No findings of significance were identified.

1EP2 Alert Notification System Testing (71114.02)

a. Inspection Scope

The inspectors performed the following actions to evaluate the adequacy of the licensee’s offsite siren system for alerting the public in the event of a nuclear emergency:

- Reviewed licensee commitments for the siren system contained in the initial system design report, the emergency plan, and station procedures
- Reviewed changes to the system and their effect on the commitments
- Evaluated the adequacy of siren test and maintenance procedures
- Reviewed year 2000 siren test and maintenance records
- Interviewed siren maintenance personnel and evaluated the adequacy of corrective actions taken for identified problems
- Observed a monthly audible siren test performed from the St. Charles Parish Emergency Operations Center
- Verified test results for selected sirens

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization Augmentation Testing (71114.03)

a. Inspection Scope

The inspectors performed the following actions to evaluate the licensee's system for notification of emergency response organization members and activation of onsite emergency response facilities:

- Reviewed emergency response organization notification and facility activation commitments in the emergency plan and station procedures
- Reviewed the adequacy of procedures for operation and testing of the primary and backup notification systems
- Observed simulated operation of the primary notification system
- Reviewed augmentation drill results, condition reports documenting augmentation system problems, and the adequacy of corrective actions
- Reviewed the qualification status for a sample of 20 emergency response organization members

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed Revision 25, Change 1, to the Waterford 3 Steam Electric Station Emergency Plan and Revision 18 to Procedure EP-001-001, "Recognition and Classification of Emergency Conditions," to determine if these revisions were made in accordance with NRC regulations.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

a. Inspection Scope

The inspectors performed the following actions to evaluate emergency preparedness related efforts to correct weaknesses and deficiencies:

- Reviewed the adequacy of corrective actions taken for emergency preparedness problems identified in the 1999 biennial exercise and an actual emergency event occurring on November 27, 1999
- Reviewed quality assurance audit and surveillance reports from the past 18 months
- Interviewed lead auditors for the last two quality assurance audits
- Reviewed emergency preparedness condition reports and action items for the adequacy and timeliness of corrective actions
- Interviewed the corrective actions and assessments manager to determine if licensee management expectations were being met for emergency preparedness corrective actions
- Reviewed emergency planning department self-assessments for the last 2 calendar years to determine the quality of self-initiated corrective actions
- Discussed the licensee's proposed enhancements to the operational support center
- Attended a morning condition report screening meeting and a corrective action review board meeting dealing with identified plant public address system problems

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors reviewed the licensee emergency plan drill scenario, observed operator performance in the control room simulator and emergency operations facility, and reviewed the licensee's drill critique and resolution of performance weaknesses. This drill was conducted on December 12, 2000.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Drill and Exercise Performance

a. Inspection Scope

The inspectors reviewed classification, notification, and protective action recommendation results from the 1999 biennial exercise, the November 27, 1999, emergency event, and selected emergency preparedness drills and simulator scenarios from the current calendar year to verify the accuracy of performance indicator data reported for the first three calendar quarters for the year 2000.

b. Findings

No findings of significance were identified.

.2 Emergency Response Organization Drill Participation

a. Inspection Scope

The inspectors reviewed drill participation data for the first three calendar quarters for the year 2000 for a sample of 36 key emergency response organization members to verify the accuracy of data reported for this performance indicator for those quarters.

b. Findings

No findings of significance were identified.

.3 Alert and Notification System Reliability

a. Inspection Scope

The inspectors reviewed siren test results from the first three calendar quarters for the year 2000 to verify the accuracy of data reported for this performance indicator for those quarters.

b. Findings

No findings of significance were identified.

.4 Safety System Unavailability Performance Indicator

a. Inspection Scope

The inspectors reviewed the performance indicator data for Safety System Unavailability - Residual Heat Removal System for the third quarter of the year 2000. This performance indicator is included in the mitigating systems cornerstone.

b. Findings

No findings of significance were identified.

.5 Safety System Functional Failures Performance Indicator

a. Inspection Scope

The inspectors reviewed the performance indicator data for Safety System Functional Failures for the third quarter of the year 2000. This performance indicator is included in the mitigating systems cornerstone.

b. Findings

No findings of significance were identified.

.6 TI 2515/144 - Performance Indicator Data Collecting and Reporting Process Review

a. Inspection Scope

The inspectors reviewed the licensee's performance indicator data collecting and reporting process to determine whether the licensee appropriately implemented the NRC/industry guidance. The inspectors assessed whether the licensee clearly understood the indicator definitions, data reporting elements, calculation methods, and clarifying notes and verified that the process will produce accurate performance indicators in accordance with the guidance in NEI-99-02. The inspectors reviewed the following specific performance indicators:

- Initiating Events - Unplanned Power Changes per 7000 Critical Hours
- Mitigating Systems - Residual Heat Removal System Unavailability Performance Indicators
- Emergency Preparedness - Emergency Response Organization Drill Participation
- Occupational Radiation Safety - Occupational Exposure Control Effectiveness
- Physical Protection - Protected Area Security Equipment Performance Index

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting Summaries

The emergency preparedness inspector presented the inspection results to Mr. C. Dugger, Vice President, Operations, and other members of licensee management at the conclusion of the inspection on December 8, 2000. The licensee acknowledged the findings presented.

The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

The resident inspectors presented the inspection results to Mr. C. Dugger, Vice President, Operations, and other members of licensee management at the conclusion of the inspection on January 4, 2001. 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.

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

Licensee

B. S. Allen, Director, Engineering
M. K. Brandon, Manager, Licensing
J. R. Douet, Manager, Plant Maintenance
C. M. Dugger, Vice-President, Operations
E. C. Ewing, General Manager, Plant Operations
R. M. Fili, Manager, Quality Assurance
B. Fron, Superintendent, Plant Security
C. Fugate, Manager, Technical Support
T. P. Lett, Superintendent, Radiation Protection
J. Lewis, Manager, Emergency Planning
J. M. O'Hern, Manager, Training and Emergency Planning
E. P. Perkins, Jr., Director, Nuclear Safety Assurance
R. Peters, Manager, Corrective Action and Assessments
J. A. Ridgel, Manager, Plant Maintenance
L. N. Rushing, Manager, System Engineering
B. Thigpen, Director, Planning and Scheduling

LIST OF ACRONYMS USED

NRC	Nuclear Regulatory Commission
CFR	Code of Federal Regulations

LIST OF DOCUMENTS REVIEWED

Emergency Plan and Implementing Procedures

EP-002-015	Emergency Responder Activation	Revision 6
EP-003-010	Emergency Communications System Routine Testing	Revision 20
EPP-422	Siren and Helicopter Warning System Maintenance	Revision 0
EPP-424	Siren Testing and Siren System Administrative Controls	Revision 2
EPP-431	Performance Indicators	Revision 0
EPP-451	Emergency Planning Action Item Tracking System	Revision 1

Miscellaneous Documents

W3D3-00-0003	Memorandum Report on November 27, 1999, "Declared Alert Event," dated January 21, 2000

Drill Reports 99-03, -06, -07, and -11

Quality Assurance Surveillances

QS-99-024, -047, -083, and -092
QS-2000-033, -055, -077, and -091

Quality Assurance Audit SA-99-026.1

Emergency Planning Condition Reports dated 1999 and 2000

ATTACHMENT 2

NRC'S REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
•Initiating Events	•Occupational	•Physical Protection
•Mitigating Systems	•Public	
•Barrier Integrity		
•Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC used two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, or RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http:\\www.nrc.gov\NRR\OVERSIGHT\index.html.