



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064

DEC 1 1995

Entergy Operations, Inc.  
ATTN: Ross P. Barkhurst, Vice President  
Operations, Waterford  
P.O. Box B  
Killona, Louisiana 70066

SUBJECT: NRC INSPECTION REPORT 50-382/95-98

This refers to the inspection conducted by Mr. C. J. Paulk and Ms. L. J. Smith of this office on August 10-11, 1995, at the Waterford Steam Electric Station, Unit 3, facility. This initiative was prompted by recurring failures of safety-related steam turbine-driven standby pumps at several facilities in Region IV. We concurrently performed this inspection at most Region IV facilities to better understand the scope of design, maintenance, and testing practices related to safety-related steam turbines, which were supplied by the Terry Corporation. We also examined several aspects of various experience review processes to determine why similar failures continued to occur. On November 9, 1995, at the conclusion of the in-office review, the findings were discussed with those members of your staff identified in the enclosed report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures, representative records, and interviews with personnel. The combined results of this inspection for each of the Region IV facilities are documented in the enclosed report and executive summary.

With respect to your facility, the inspection identified several conditions that were precursors to mechanical overspeed trips of safety-related steam turbine-driven standby pumps at other facilities. Your staff was not filtering turbine or governor oil in accordance with the vendor recommendations. The turbine casing steam trap at your site was designed to allow a small amount of water to stand in the turbine casing following a turbine run. This conflicted with the vendor recommendation that drain lines remain open when the turbine is idle to prevent corrosion of internal parts. We also found that your staff had not established a preventive maintenance program for the turbine governor, steam traps, or drains. We encourage you to review these conditions to ensure continued reliable operation of the emergency feedwater pump turbine.

We note that your staff stated at the exit interview that they planned to establish a preventive maintenance program for steam traps. They stated that the turbine governor had been replaced in May 1994. We also noted that your staff proactively planned to replace the installed governor valve stem with a material which was less susceptible to corrosion.

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PDR ADOCK 05000382  
Q PDR

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

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

Sincerely,



Thomas P. Gwynn, Director  
Division of Reactor Safety

Docket: 50-382  
License: NPF-38  
Enclosure:  
NRC Inspection Report  
50-382/95-98 w/attachments

cc w/enclosure:  
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E-Mail report to D. Nelson (DJN)  
E-Mail report to NRR Event Tracking System (IPAS)

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan  
Branch Chief (DRP/D)  
MIS System  
RIV File  
Branch Chief (DRP/TSS)

Resident Inspector  
Leah Tremper (OC/LFDCB, MS: TWFN 9E10)  
DRSS-FIPB  
Project Engineer (DRP/D)

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11/29/95	11/22/95	11/22/95	12/1/95	11/30/95	12/1/95	

OFFICIAL RECORD COPY

E-Mail report to D. Nelson (DJN)  
E-Mail report to NRR Event Tracking System (IPAS)

bcc to DMB (IE01) *W*

bcc distrib. by RIV:

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