



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

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

OCT 31 1995

EA 95-181

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

SUBJECT: NRC INSPECTION REPORT 50-382/95-16

This refers to the inspection conducted by Mr. S. J. Campbell and Ms. V. L. Ordaz of this office from July 31 to August 10, 1995, at your Waterford Steam Electric Station, Unit 3 facility (Waterford 3). This special inspection was conducted to review the circumstances surrounding your identification of degraded flow in the essential chilled water (ECW) system during special testing performed on June 1, 1995, and to verify that activities were conducted in accordance with NRC requirements. The specific areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

On April 8, 1995, the General Manager, Plant Operations (plant manager) performed a walkdown of the ECW system and found the material condition to be worse than expected. Additionally, on April 16, 1995, during surveillance testing, your staff determined that Recirculation Valve CHW-129A oscillated. Subsequently, your staff fully opened the valve as specified in the applicable preoperational test procedure; however, this action decreased the subloop flows. Because the flow decreased when the recirculation valve was repositioned in accordance with the preoperational test, the plant manager requested engineering to develop a special test to validate the ECW loop flow values. Subsequently, your staff performed special tests of the ECW system on May 8, May 25, and June 1, 1995. The initial test on May 8, 1995, demonstrated that ECW Train A, using ECW Pump A, could achieve the required 510 gpm design flow. On May 25, 1995, the test revealed that ECW Train B, supplied by ECW Pump AB, would meet the 481 gpm accident flow but did not meet the design flow. On June 1, 1995, with ECW Train B tested using ECW Pump B, your staff measured a flow of 320 gpm, which was only 63 percent of the design flow.

Because of the low flow value on ECW Train B, your staff performed an engineering evaluation to determine if the system could perform its design function and initiated actions to identify the root cause. The evaluation demonstrated that the ECW system would perform its safety function during accident conditions. Your staff attributed the root cause to mispositioning

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of ECW Pump Discharge Valve CHW-115B that restricted ECW flow below design and accident flows. Also, your staff discovered the procedure that provided guidance to operators on proper entry into Technical Specifications limiting conditions for operation had incorrect information related to safeguards room air handling unit heat removal capacities.

After identifying these deficiencies, your staff immediately processed a procedure change to reflect the correct value for the safeguards room air handling unit heat removal capacities. Your staff changed the valve positions of ECW Pump Discharge Valves CHW-115A, -115B, and -115AB to full open to prevent restricting ECW loop flows below design values. Long-term corrective actions for further addressing the deficiencies include developing periodic flow balance test procedures and removing the nonsafety loops from the safety loops.

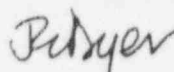
NRC conducted an extensive review of this matter to determine whether compliance with 10 CFR Part 50, Appendix B, Criterion III, had been met at Waterford 3 prior to your testing and implementation of corrective actions. The NRC has concluded that a violation with two examples of Appendix B, Criterion III requirements did occur. In the first example the ECW system operating and surveillance procedures did not assure that minimum flows assumed in design documents would be met. In the second example the licensee failed to have the correct safeguards pump room air handling unit heat removal capacities listed in the appropriate operating procedures.

NRC noted that: (1) the plant manager voluntarily requested the special testing that identified these problems; and (2) your staff took appropriate corrective actions within a reasonable time following identification of the problem, which included evaluating other potentially affected systems. Consequently, this licensee-identified and corrected violation is being treated as a noncited violation consistent with Section VII.B.1 of the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) (60 FR 34381; June 30, 1995).

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure(s) 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,



J. E. Dyer, Director
Division of Reactor Projects

Docket: 50-382
License: NPF-38

Enclosure:
NRC Inspection Report
50-382/95-16

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Entergy Operations, Inc.

-6-

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

bcc to DMB (IE01)

bcc distrib. by RIV:

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MIS System
RIV File
Branch Chief (DRP/TSS)
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DE		D:DRP	E	DRA	RA
JLieberman		JEDyer		SJCollins	LJCallan
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10/05/95		10/05/95		10/6/95 <i>10/20/95</i>	10/6/95
OE		D:DRP <i>JL</i>	E	DRA	RA <i>RA</i>
JLieberman		JEDyer <i>JED</i>	<i>BUP</i>	SJCollins	LJCallan
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