LOUISIANA POWER & LIGHT / 142 DELARONDE STREET
P. O. BOX 6008 • NEW ORLEANS, LOUISIANA 70174 • (504) 366-2345
MIDDLE SOUTH UTILITIES SYSTEM

February 26, 1982

G. D. McLENDON
Senior Vice President

W3K-82-0109
Q-3-A35.07.44

Mr. John T. Collins, Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76012

SUBJECT: Waterford SES Unit 3
Docket No. 50-382
Revised Interim Report of Significant
Construction Deficiency No. 44
"LPSI Pump Suction Valves"

Reference: LP&L Letter W3K-82-0090 dated 2/15/82 to USNRC

Dear Mr. Collins:

In accordance with the requirements of 10CFR50.55(e), we are hereby providing two copies of a Revised Interim Report of Significant Construction Deficiency No. 44, "LPSI Pump Suction Valves."

An editorial correction has been made in the "Description" section of the report. It was necessary to delete the third paragraph as this did not coincide with the wording in the "Corrective Action" section of the report.

If you have any questions, please advise.

Very truly yours,

G. D. McLendon

GDMcL:LLB:grf

Attachment

IE-27
5/1

cc: 1) Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555
(with 15 copies of report)

2) Director
Office of Management
Information and Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555
report)

LOUISIANA POWER & LIGHT COMPANY

WATERFORD SES UNIT NO. 3

Revised
Interim Report of
Significant Construction Deficiency No. 44

LPSI PUMP SUCTION VALVES

Reviewed by _____ 2/19/82
R. J. Milhiser - Site Manager — Date

Reviewed by W C Bridges FOR 2/19/82
J. L. Wills - Project Superintendent — Date

Reviewed by _____ 2/19/82
J. DeBruin - ESSE Project Engineer — Date

Reviewed by _____ 2-19-82
J. Hart - Project Licensing Engineer — Date

Reviewed by _____ 2-19-82
J. Gutierrez - Q. A. Site Supervisor — Date

February 19, 1982

REVISED
INTERIM REPORT OF
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 44
"LPSI PUMP SUCTION VALVES"

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e). It describes a deficiency in the Low Pressure Safety Injection Pump Suction Valves. The existing valves are not designed for the high differential pressure they would be subjected to during shutdown cooling mode of operation. This problem is considered reportable under the requirements of 10CFR50.55(e). To the best of our knowledge, this problem has not been identified to the Nuclear Regulatory Commission pursuant to 10CFR21.

DESCRIPTION

As a result of the TMI-2 accident, the NRC requires that the shutdown cooling system (SDCS) be designed for complete remote operation (the use of the manual TMI-2 system was hampered by high radiation level). To accomplish remote manual operation, a number of SDCS valves were to be backfitted with motor operators, including the subject two valves. While quoting the motor operators, Fisher Controls Co., the manufacturer, revealed that in the closed position, these valves are capable of taking only 150 PSI differential pressure. (LPSI pump suction valves C E Tag No. SI-431 and 444, Ebasco Tag No. 2SI-B301A and 2SI-B302B).

This condition is unacceptable since the LPSI pump is lined up for shutdown cooling mode when the primary system pressure is about 370 PSIG at which time the LPSI pump suction valve is part of the primary coolant system pressure boundary. The ASME code requires double isolation of piping connecting to the primary system. The suction valve together with one check valve in series is to serve this purpose.

SAFETY IMPLICATIONS

Failure of the subject valves allows only single valve isolation of primary coolant (approximately 400 PSIG) during shutdown cooling mode. Failure of a correspondent check valve subjects the balance of safety injection system piping to conditions beyond their design rating. This condition could lead to loss of primary coolant and loss of inventory in the refueling water storage pool (RWSP). A primary coolant leak would result in a significant radioactivity release; while the loss of the RWSP would jeopardize the ability to safely shut down the plant. Therefore, the present design of the LPSI pump suction valves, if left uncorrected, presents a safety hazard to the plant.

CORRECTIVE ACTION

The following corrective action will be taken:

1. Check Valves will be located on line 2SI20-4A and 2SI20-4B between RWSP/SIS suction line and existing Check Valves (2SI-V331A and V332B).

2. The originally proposed Motor Operators on the Butterfly Valves 2S1-B301A and 2SI-B302B will be deleted and the valves will be locked open for normal operation and used only for maintenance isolation of the pump.

3. The 300 lb. pressure class rating will be extended back to and will include the added Check Valves on the suction line.

Ebasco Site Nonconformance Report W3-3441 was issued on February 4, 1982, to provide tracking for the deficiency. Corrective action shall be accomplished and a Final Report submitted to the USNRC on or before August 16, 1982.

LOUISIANA POWER & LIGHT COMPANY

WATERFORD SES UNIT NO. 3

Revised
Interim Report of
Significant Construction Deficiency No. 44

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