



LOUISIANA
POWER & LIGHT

142 DELARONDE STREET
NEW ORLEANS, LOUISIANA

P.O. BOX 8008
70174-8008

(504) 366-2345

L.V. MAURIN
Vice President Nuclear Operations

April 15, 1983

W3P83-1194
3-A1.01.04
3-A19.09.10

Director of Nuclear Reactor Regulation
Attention: Mr. G. Knighton, Chief
Licensing Branch Number 3
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: Waterford SES Unit 3
Docket No. 50-382
Response to NUREG 0737, Supplement 1

Reference: Generic Letter No. 82-33 dated December 17, 1982, "Supplement 1 To
NUREG 0737 - Requirements For Emergency Response Capability"

Gentlemen:

The referenced Generic Letter requested a plant-specific schedule for completing each of the basic requirements of Supplement 1 to NUREG 0737 as well as a plan for phased implementation and integration of the emergency response activities. Enclosed please find our proposed schedule for Waterford 3 and our plan for integration and implementation of the scheduled items.

It is our understanding that any scheduling changes will be mutually agreed upon by consultation between the Waterford 3 NRC Project Manager and L.P.&L prior to finalizing the schedule into an enforceable document. Should such discussions be necessary please contact Roy Prados, Licensing Engineering Supervisor, at (504) 363-8773.

Yours very truly,

L. V. Maurin

LVM/MJM/ssd

Enclosure

cc: W. M. Stevenson, E. L. Blake, J. Wilson

A046

RESPONSE
OF
LOUISIANA POWER AND LIGHT
TO
NUREG 0737, SUPPLEMENT 1

Scheduling Requirements

SPDS

The Waterford 3 SPDS will consist of two interdependent systems, the primary SPDS residing in the Plant Monitoring Computer and a separate Class 1E, seismically qualified system (referred to as the QSPDS).

The primary SPDS will provide the operators with sufficient information on the five critical safety functions to aid them in rapidly and reliably determining the safety status of the plant. Input to the SPDS will be provided from the extensive data base maintained by the Plant Monitoring Computer. The human factors engineered display will provide a paging mechanism to allow the operators to conduct a hierarchical survey of plant status.

The QSPDS includes the processing and display for the Inadequate Core Cooling (ICC) Instrumentation. The primary SPDS receives ICC display information from the QSPDS. The QSPDS also includes a subset of the SPDS variables to allow it to act as a safety grade backup for the primary SPDS safety function displays. The interface between the primary SPDS and the QSPDS is through safety grade isolation devices.

The following table provides the best estimate dates for completion of the NUREG 0737, Supplement 1 SPDS milestones.

<u>Item</u>	<u>Completion Date</u>
1. SPDS Safety Analysis Submittal	July 1, 1983
2. SPDS Implementation Plan Submittal	August 15, 1983
3. NRC Preimplementation Review	Not Desired
4. Operators Trained on SPDS	July 30, 1983
5. SPDS Operational	Fuel Load

(Note: As detailed in letter W3P83-0847 dated March 25, 1983 the use of the Heated Junction Thermocouple System (HJTCS) will not be incorporated into the Waterford 3 emergency operating procedures until the second cycle of operation. During the first cycle of operation the HJTCS will be used only for operator familiarization and training.)

DCRDR

The DCRDR for Waterford 3 has been completed.

Following a human factors review of the control room by LP&L, on May 10-13, 1982 the NRC conducted a pre-implementation control room audit. A series of letters, culminating in W3T82-0491 (December 22, 1982) and W3B83-0002 (March 22, 1983), provided LP&L's response and solutions to the human engineering deficiencies identified in the original and ongoing LP&L human factors control room

efforts as well as the audit findings. The control room upgrades are proceeding on a schedule consistent with the audit team requirements (i.e., nearly all enhancements and changes will be implemented prior to licensing).

LP&L is in compliance with the DCRDR requirements of NUREG 0737, Supplement 1 except for the incorporation of changes resulting from other emergency response capability items. As each additional Supplement 1 item (e.g., SPDS, emergency operating procedures) approaches completion its effects on the control room will be reviewed to identify and resolve additional human engineering deficiencies. This review will be reflected in the scheduling for the pertinent item.

Reg. Guide 1.97

LP&L will submit a report describing the implementation of Reg. Guide 1.97, Rev. 2 at Waterford 3 by May 30, 1983. Included in the report will be justification for any necessary deviations from the Reg. Guide. All Reg. Guide 1.97 requirements will be implemented on either a fuel load or commercial operations schedule to be detailed in the May 30, 1983 report.

Upgrade Emergency Operating Procedures (EOPs)

Waterford 3 operators will use the current EOPs during the first cycle of operation. The EOP upgrade will continue during this period.

LP&L will be using the CE Emergency Procedure Guidelines to develop the function oriented EOPs. These Guidelines were approved for use in CE plants by the NRC on February 4, 1983.

The following table provides the best estimate dates for completion of the NUREG 0737, Supplement 1 EOP milestones.

<u>Item</u>	<u>Completion Date</u>
1. Generic Technical Guidelines Submittal	Done
2. Procedures Generation Package Submittal	5 months prior to first refueling
3. Begin Operator Training	2 months prior to first refueling
4. Upgraded EOP Implementation	Cycle 2

Emergency Response Facilities

The Waterford 3 EOF is being developed in two stages. The current EOF is a temporary facility intended for use until the permanent EOF can be established in a new training/simulator facility. This arrangement was approved by the NRC in a letter dated February 4, 1982 from Miraglia (NRC) to Maurin (LP&L).

NUREG 0737, Supplement 1 requests the date on which the TSC, OSC & EOF will be fully functional. Defining fully functional as completing all action concerning

structure, instrumentation, procedures and trained staff, the following dates apply:

TSC, OSC, Interim EOF, Backup EOF

Fuel Load

Permanent EOF

December 31, 1984*

*Schedule under evaluation

Plan for Phased Implementation
And Integration of Emergency
Response Activities

Complete or Near Term Complete Items

1. The Detailed Control Room Design Review (DCRDR) is complete. The resulting enhancements and other changes are in progress. LP&L is currently awaiting issuance of an SER to close out the DCRDR.
2. The Combustion Engineering Generic Emergency Procedure Guidelines have been approved by the NRC for use in CE plants.
3. The report demonstrating LP&L compliance with Reg. Guide 1.97, Rev. 2 will be provided to the NRC by May 30, 1983.

Implementation and Integration

1. SPDS
 - a. Review the CE Emergency Procedure Guidelines and other available sources to identify the operator functions necessary to recognize and cope with rare events that (1) pose significant contributions to risk, (2) could cause operator cognitive errors in diagnosis, and (3) are not included in routine operator training programs.
 - b. Combine the results of this review with accepted human factors principles and the available Reg. Guide 1.97 and Plant Monitoring Computer variables to select parameters, data display and functions to be incorporated in the SPDS.
 - c. Design, build and install the SPDS in the control room and train its users.
 - d. Review the installed SPDS from the viewpoint of a DCRDR and correct any deficiencies.
 - e. Provide the SPDS in the TSC and EOF (interim and permanent) and train its users.
2. EOPs
 - a. Develop plant-specific EOPs based upon the CE Emergency Procedure Guidelines and incorporate the use of the SPDS. Utilize event oriented EOPs (to be submitted for NRC approval in April, 1983) in the interim.
 - b. Train and qualify plant operating staff regarding upgraded EOPs and plant modifications.
3. Continue with control room upgrades and include any modifications necessary as a result of the review of the implementation of other emergency response capability requirements.

4. Verify that the functions of control room operators in emergencies can be accomplished (i.e. that the individual items of NUREG 0737, Supplement 1 have been integrated sufficiently to meet the needs of control room operators and provide adequate emergency response capabilities).
5. Implement EOPs coincident with the first refueling outage.