In Reply Refer To: Docket: 50-382/89-16

Louisiana Power & Light Company ATTN: J. G. Dewease, Senior Vice President Nuclear Operations 317 Baronne Street New Orleans, Louisiana 70160

#### Gentlemen:

Thank you for your letter of October 26, 1989, in response to our letter and Notice of Violation dated September 15, 1989. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

Original Signed By: Samuel J. Coilins

Samuel J. Collins, Director Division of Reactor Projects

cc: Louisiana Power & Light Company ATTN: R. P. Barkhurst, Vice President Nuclear Operations P.O. Box B Killona, Louisiana 70066

Louisiana Power & Light Company ATTN: J. R. McGaha, Jr., Plant Manager P.O. Box B Killona, Louisiana 70066

Louisiana Power & Light Company ATTN: L. W. Laughlin, Site Licensing Support Supervisor P.O. Box B Killona, Louisiana 70066

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Monroe & Leman ATTN: W. Malcolm Stevenson, Esq. 201 St. Charles Avenue, Suite 3300 New Orleans, Louisiana 70170-3300

Shaw, Pittman, Potts & Trowbridge ATTN: Mr. E. Blake 2300 N Street, NW Washington, D.C. 20037

Middle South Services, Inc. ATTN: Ralph T. Lally, Manager of Quality Assurance P.O. Box 61000 New Orleans, Louisiana 70161

Chairman Louisiana Public Service Commission One American Flace, Suite 1630 Baton Rouge, Louisiana 70825-1697

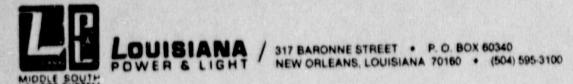
Louisiana Power & Light Company ATTN: R. F. Burski, Manager, Nuclear Safety and Regulatory Affairs 317 Baronne Street New Orleans, Louisiana 70112

Department of Environmental Quality ATTN: William H. Spell. Administrator Nuclear Energy Division P.O. Box 14690 Baton Rouge, Louisiana 70898

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Mr. William A. Cross Bethesda Licensing Office 3 Metro Center Suite 610 Bethesda, Maryland 20814 bcc to DMB (IEO1) bcc distrib. by RIV: R. D. Martin Section Chief (DRP/A) DRSS-FRPS Project Engineer (DRP/A) RIV File D. Wigginton, NRR Project Manager (MS: 13-D-18) Lisa Shea, RM/ALF

Resident Inspector DRP MIS System RSTS Operator DRS



W3P89-1581 A4.05 QA

October 26, 1989

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555

Subject: Waterford 3 SES

Docket No. 50-382 License No. NPF-38

NRC Inspection Report 89-16

#### Gentlemen:

In accordance with 10 CFR Part 2.201, Louisiana Power & Light hereby submits in Attachment 1 the response to the Violation identified in Appendix A of the subject Inspection Report.

If you have any questions concerning this response, please contact T.J. Gaudet at (504) 464-3325.

Very truly yours,

R.F. Burski

Manager

Nuclear Safety & Regulatory Affairs

RFB/TJG/pi Attachment

cc: Messrs:

R.D. Martin, NRC Region IV

F.J. Hebdon, NRC-NRR

D.L. Wigginton, NRC-NRR

NRC Resident Inspectors Office

E.L. Blake

W.M. Stevenson

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#### ATTACHMENT 1

# LP&L RESPONSE TO THE VIOLATION IDENTIFIED IN APPENDIX A OF INSPECTION REPORT 89-16

## VIOLATION NO. 8916-02

# Inadequate Abnormal Procedures

Technical Specification 6.8.1 requires, in part, that procedures shall be established and implemented covering . . . a. the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Appendix A of Regulatory Guide (RG) 1.33, Section 5 states, in part, that procedures for safety-related activities should be established which address expected abnormal and alarm conditions corresponding to the alarm annunciators. Section 5 further states that each safety-related annunciator should have its own written procedure, which should normally contain (1) the meaning of the annunciator, (2) the source of the signal, (3) the immediate action that is to occur automatically, (4) the immediate operation action, and (5) the long-range actions.

Waterford-3 FSAR, Section 13.5.2.1.(d), "Typical Off-Normal Procedures," stated that the off-normal procedures would include the "120V AC Vital Instrument System Bus Out of Service" and the "Safety-Related AC Power Distribution System Bus Out of Service."

## Contrary to the above,

- Procedure OP-901-054, "Loss of a Vital 120V AC Instrument Channel,"
  Revision 2, failed to include all of the expected conditions and
  actions that occurred automatically, and some of the immediate and
  long-term actions for the operators.
- An adequate written procedure had not been provided addressing the loss of a vital 4160 volt AC electrical bus.

This is a Severity Level IV violation.

#### Response

LP&L admits the violation for the conditions stated above. Although LP&L believed that the loss of a vital 120 volt AC instument channel and the loss of a vital 4160 volt AC electrical bus had been adequately addressed in existing plant procedures, the guidance provided for such conditions was not sufficiently coordinated in an off-normal procedure to ensure that the RG 1.33 requirements were being met.

### (1) Reason for the Vaolation

#### Item 1

The root cause for Item 1 of the violation was improper human factor engineering of Procedure OP-901-054. LP&L believes that the overall content of procedure OP-901-054 is adequate (as was supported by the inspector on Page 6 of the Inspection Report); however, the procedure did not contain all credible conditions for each criterion stipulated in Section 5 of Appendix A to RG 1.33.

Because of the complexity involved with the loss of a vital 120V AC instrument bus and due to the numerous actions (automatic and operator) that have to be addressed during such an event, some of the expected conditions and subsequent actions were included in other procedures which serve to complement OP-901-054. However, no correlation between procedures was made to ensure that the upper tier procedure (OP-901-054) addressed all situations. A separate off-normal procedure (OP-901-011) is provided to ensure that the monitored limiting conditions for operation of the core operating limit supervisory system (COLSS) are maintained. Although "COLSS Out of Service" is an expected annunciator resulting from a loss of vital AC 120 volt bus 3MC-S and the subsequent actions for it are addressed in OP-901-011, no reference to the procedure is made in OP-901-054. The failure of an incore instrument channel is another expected annunciator resulting from a loss of a vital 120 volt bus and is listed in OP-901-054, however, the affected indications and subsequent actions to such an alarm are addressed in a separate procedure (OP-500-009) again with no tie in to OP-901-054. Lastly, the reset of a partial engineered safety features actuation system (ESFAS) actuation following restoration of power to the failed instrument bus is an additional condition that was not addressed in OP-901-054 but is addressed in separate procedures (OP-903-094 and OP-903-095).

#### Item 2

The root cause for Item 2 of the violation was a misinterpretation of the regulatory requirements provided in RG 1.33. Although procedural guidance for the operator in the event of a loss of a 4160 volt AC electrical bus is available, the guidance is not feasibly located in a stand alone off-normal procedure to meet the regulatory requirements of RG 1.33.

RG 1.33, Section C (Regulatory Position) states that "(t)he procedures listed in Appendix A may be combined, separated, or deleted to conform to the applicant's procedures plan. Furthermore, as stipulated in the Notice of Violation, Section 5 of Appendix A to RG 1.33 states that each safety-related annunciator should have its own written procedure, which should normally contain... LP&L had in this instance interpreted these guidelines to mean that various combinations of procedures could be utilized to address the loss of a vital 4160 volt AC electrical bus and that a stand alone procedure was unnecessary.

An annunciator response procedure (OP-500-xxx series) exists for each of the 14 Control Room Cabinets. Various expected conditions and the associated corrective actions for the loss of a vital 4160 volt AC electrical bus are included in these annunciator response procedures where applicable. Because LP&L's philosophy on annunciators is based on the operator's understanding, knowledge and training of the annunciator response procedures, LP&L believed that adequate guidance was available for the loss of a vital 4160 volt AC electrical bus to meet the requirements of RG 1.33 and therefore, in this case, a separate off-normal procedure was not developed.

# (2) Corrective Steps Which Have Been Taken and the Results Achieved

#### Items 1 & 2

As was stated in a previous letter to the NRC (LP&L Letter No. W3P89-1508 dated 8/17/89), the Operations Department has initiated an effort to upgrade Operations' procedures. The procedures are being upgraded per the Operations Writer's Guide (OP-100-013) to ensure that they are technically accurate and properly human factor engineered. This effort involves the extensive review of approximately 260 procedures by LP&L and an independent consultant who is providing human factors expertise. As of the end of September, 1989, 142 procedures (55%) have undergone this review and were upgraded accordingly. Of the remaining 118 procedures, 50% are under revision and the other 50% are undergoing technical verification.

With regard to Item 1, the current schedule calls for completing the upgrade to OP-901-054, which will now require the i clusion of the information discussed above at a minimum, by May 1, 1990.

With regard to Item 2, the annunciator response procedures are included in the remaining procedures to be reviewed as part of the upgrade effort.

LP&L is confident however that the existing procedures, coupled with Waterford 3 operators trained to properly assess the loss of a vital 120 volt AC instrument channel and the loss of a vital 4160 volt AC electrical bus, will be sufficient to avoid a safety concern in the interim.

# (3) Corrective Steps Which Will Be Taken to Avoid Further Violations

#### Item 1

LP&L believes that the necessary corrective actions as described above will ensure that a violation of this type does not recur.

#### Item 2

An off-normal procedure will be developed to ensure that the essential information for a loss of a vital 4160 volt AC electrical bus is available in a single procedure to meet the requirements of RG 1.33.

## (4) Date When Full Compliance Will Be Achieved

#### Items 1 & 2

The actions identified above (upgrade to OP-901-054 and development of a new off-normal procedure) will be completed by no later than May 1, 1990, at which time LP&L will be in full compliance.