



Louisiana Power & Light Company  
317 Baronne Street  
P. O. Box 60340  
New Orleans, LA 70160-0340  
Tel. 504 595 2805

R. F. Burski  
Nuclear Safety & Regulatory Affairs  
Manager

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QA

April 19, 1990

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 90-04  
Reply to Notice of Violation

Re: Attachment:

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

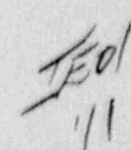
If you have any questions concerning these responses, please contact T.J. Gaudet at (504) 464-3325.

Very truly yours,

RFB/TJG/ssf  
Attachment

cc: Messrs. R.D. Martin, NRC Region IV  
F.J. Hebdon, NRC-NRR  
D.L. Wigginton, NRC-NRR  
E.L. Blake  
W.M. Stevenson  
NRC Resident Inspectors Office

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ATTACHMENT 1

LP&L RESPONSES TO THE VIOLATIONS IDENTIFIED IN APPENDIX A  
OF INSPECTION REPORT 90-04

VIOLATION NO. 9004-02

Failure to Provide Adequate Administrative Procedures

Technical Specification 6.8.1.a requires, in part, that written administrative procedures shall be established, implemented, and maintained covering safety-related activities as recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Contrary to the above, Administrative Procedure UNT-005-012, Revision 1, "Repetitive Task Identification," was inadequate in that it did not specifically require, nor did it establish responsibility for repetitive tasks (RTs) to be updated to reflect changes to the licensee's component database. Consequently, in August 1989 when the dry cooling tower (DCT) fans were reclassified from nonsafety- to safety-related in the component database, 25 RTs were not changed to reflect the upgrade. As a result, on February 14, 1990, RT Work Authorization 01052518 was issued to perform maintenance on DCT Fan 8B without the appropriate quality controls established by the licensee for safety-related equipment such as QC witnessing the torque applied to fan blade bolting.

This is a Severity Level IV violation.

RESPONSE

(1) Reason for the Violation

LP&L admits this violation and attributes its root cause to inadequate administrative controls. Existing controls for updating repetitive tasks in the maintenance database were not sufficient to properly account for changes made to the component database of the Waterford 3 Station Information Management System (SIMS).

The Waterford 3 SIMS was implemented in July, 1987. One of its capabilities is to provide automatic copying of certain component data (such as its description, location, equipment classification, safety classification, quality classification, etc.) from the component database to repetitive tasks being generated in the maintenance database. However, due to system constraints, this feature is only allowed at the task identification stage. Guidance on this process is described in Section 5.5, Data Copied From The Component Database (CDB), of UNT-005-012.

For any succeeding changes to the component database, LP&L chose to accomplish the updating of the associated repetitive task through procedural controls. Thus, controls for making significant changes (those that alter performance interval, scope, intent or acceptance criteria of work description) to repetitive tasks after they have been implemented in SIMS were established in Section 5.6, Repetitive Task Change and Deletion, of UNT-005-012. Controls were also established for identifying discrepancies between the data on a closed work authorization and that which is described in the component database. These controls are described in Section 5.5, Updating the Component Database, of Nuclear Operations Engineering Procedure (NOEP) 105, "Work Authorization Closure." Although these practices have worked in the past and LP&L is confident that the discrepancy between the component database and the maintenance database for the DCT fans' safety class designation would have been identified and corrected under this process, such actions would not have been timely in this case to prevent other violations (performance of maintenance without the appropriate quality controls). The established controls were therefore not sufficient to ensure that changes made to the component database would have been carried over to the maintenance database in a timely manner.

It should be noted that a generic concern for this situation was recognized by LP&L in October, 1989. At that time measures to provide the capability for updating the repetitive tasks data with the latest information contained in the component database were planned under the Phase II Project for the Waterford 3 SIMS. This revision is under consideration for implementation in December, 1990.

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

Because the discrepancy was identified during the performance of a task (Repetitive Task Work Authorization (WA) 01052518), the maintenance supervisor promptly corrected the WA once it had been verified that the component database had listed the DCT fans as safety-related. As a result of this correction, a quality control hold point had to be added to the WA before continuing the work to address the appropriate controls that are necessary for such safety-related components. These controls were also incorporated into the repetitive tasks for each DCT fan to preclude further violations in this area.

Maintenance personnel performed an audit to determine the number of disparities between the component database and the maintenance database. Approximately 50 items, in addition to the DCT fans, were identified as having adverse disparities (i.e., the component database was more restrictive than the maintenance database). Many of these disparities were for components related to lubrication tasks or tasks not yet performed. A review of maintenance history for these disparities was conducted to provide assurance that the quality level of replacement parts was correct. No discrepancies were identified.



Additionally, LP&L is confident that safety was not adversely affected because the only measures that could have been omitted from some of the tasks were QA opening reviews and second party reviews. Although other disparities were also identified, they were in the conservative direction (i.e., the maintenance database was more restrictive than the component database). Adverse disparities for tasks performed in the past have been corrected. The other disparities will be corrected as necessary when the associated task is utilized.

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

Nuclear Operations Engineering Procedure NOEP-103, "Component Data Base Safety/Q-Level Component Determination," will be revised to require notification of the Lead Maintenance Planner each time the component database is changed. A corresponding change will be reflected in UNT-005-012 to require a change to the Maintenance database and outstanding work authorization whenever the Lead Maintenance Planner is notified of a component database change.

In addition, as noted above, the Waterford 3 SIMS Phase II enhancement will include provisions for flagging changes to the component database and updating associated tasks each time they are converted to a Work Authorization.

LP&L is confident that the above measures will prevent the potential for future violations in this area.

(4) Date When Full Compliance Will Be Achieved

Changes to procedures NOEP-103 and UNT-005-012 will be implemented by June 15, 1990, at which time LP&L will be in full compliance with respect to the specifics of the violation. The projected schedule for the Waterford 3 SIMS Phase II Enhancement Project which will complement the above procedural changes is December, 1990.

VIOLATION NO. 9004-03

Failure to Conduct Adequate Postmaintenance Test

10 CFR 50, Appendix B, Criterion XI, "Test Control," requires, in part, that all testing required to demonstrate that components will perform satisfactorily in service is identified and performed in accordance with written test procedures, which incorporate the requirements and acceptance limits contained in applicable design documents.

Contrary to the above, on October 31, 1988, subsequent to replacement, Containment Fan Cooler C fan motor was not rotationally tested in slow speed, which is the speed at which the fan performs its intended safety function. Instead, the fan was only tested in fast speed. Consequently, it was not known until October 19, 1989, when the fan was energized in slow speed, that the fan was wired to run backwards in slow speed.

This is a Severity Level IV violation.

RESPONSE

Because much of the detailed information for this event has been documented in a previous submittal to the NRC (LER-89-020 dated 11/20/89), a synopsis to address the specifics of the violation is being provided below.

(1) Reason for the Violation

LP&L also admits this violation and attributes its root cause to personnel error. The required surveillance testing that would have verified proper fan rotation was not performed prior to returning the fan to operable status.

In October, 1988, containment fan cooler (CFC) "C" fan motor was reworked following motor failure. During reinstallation of the motor, several problems were identified with the power cable terminations for the motor. A work authorization (WA 01019107) was generated to disposition the identified concerns. During implementation of the WA, fan rotation and motor speed were checked through the use of Electrical Maintenance Procedure ME-007-006, "480 VAC or Less Squirrel Cage Induction Motors." However, the motor speed recorded in the WA package was not taken with a stroboscope as required by the procedure nor was a visual observation of the fan rotation made. Because access to the fan housing duct was not permitted during operation due to Health Physics concerns (the CFC motor is housed in the HVAC ducts inside containment), the stroboscope speed data was unavailable. At this point, the electrician incorrectly presumed fan rotation by checking for air flow outside the duct through the louvers. Also, Surveillance Procedure OP-903-029, "Safety Injection Actuation Signal Test," which would have verified proper slow speed differential pressure for the CFC "C" fan motor and therefore would have verified proper fan rotation, was not performed. On October 31, 1988, CFC "C" fan motor was then declared operable without conducting a proper retest.

As a result, CFC "C" ran in the reverse direction with reduced air flow and cooling capacity which would have made it unavailable for operation during emergency conditions. However, the three remaining CFC's were in service during the time that CFC "C" was incorrectly believed to be operable (October 31, 1988 until October 9, 1989). Consequently, the Limiting Condition For Operation of the CFC's was satisfied and the health and safety of the general public or plant personnel were therefore not threatened by this event.

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

CFC "C" fan motor was rewired for correct slow speed operation on 10/19/89 (under WA 01047636). All CFC units were then verified for proper rotation in accordance with Surveillance Procedure OP-903-029.

As stated above, this event was reported to the NRC in November, 1989 in LER-89-020.

The maintenance history for the CFC fans was reviewed and revised to include the proper retest requirements. This revision will ensure that OP-903-029 is included as a retest in future work authorizations related to CFC unit maintenance. Repetitive Task Cards and Motor Information Sheets for the CFC fans have also been updated to reflect the OP-903-029 retest requirement.

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

A lessons learned session on this incident as well as counselling of the personnel involved will be conducted under the direction of the Assistant Plant Manager-Operations and Maintenance. The importance of complying with procedures and the necessity for ensuring that post maintenance testing is adequately performed will be stressed. The counselling and lessons learned sessions will be conducted by May 7, 1990.

Maintenance is currently developing a new procedure that will provide guidance on post maintenance test requirements and acceptance criteria for maintenance tasks in general.

(4) Date When Full Compliance Will Be Achieved

Implementation of the new maintenance procedure, which will address the generic concerns of this violation, will be achieved by September 30, 1990, at which time LP&L will be in full compliance.