

FEB 4 1987

In Reply Refer To:
Docket: 50-382/84-42
50-382/85-01
50-382/85-05

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

Gentlemen:

Thank you for your letter of January 26, 1987, in response to our letter requesting additional information regarding NRC Inspection Reports 50-382/84-42, 50-382/85-01, and 50-382/85-05 dated October 27, 1986. We have reviewed your reply and find it responsive to the questions raised in our letter. 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
J. E. Gagliardo

J. E. Gagliardo, Chief
Reactor Projects Branch

cc:
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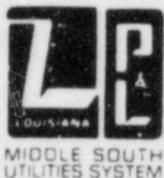
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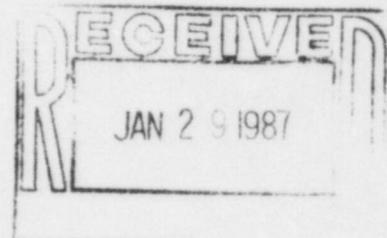
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January 26, 1987

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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
NRC Information Request, October 27, 1986

Reference: NRC letter dated October 27, 1986 Requesting Additional
Information regarding NRC Inspection Reports 84-42, 85-01 and
85-05.

By the referenced letter the NRC requested additional information concerning certain spare part procurement issues at Waterford 3. LP&L requested and received an extension of the original 30 day response period in order to review the issues in detail and provide time to meet with the NRC staff prior to submittal of the response.

On January 20, 1987 we met with Messrs. L. Constable and J. Boardman of the NRC staff. During the meeting we discussed in detail the basis for the additional information request as well as LP&L's initial review findings. We wish to commend the staff for their professional attitude and cogent comments which enabled resolution of these issues.

Enclosed please find LP&L's response to the five questions presented in the referenced letter. We believe that this response, which addresses the NRC's comments from the January 20 meeting, provides the basis for closure of the procurement related issues.

Should you have any further questions on this matter please feel free to contact me.

Very truly yours,

K.W. Cook
Nuclear Safety and
Regulatory Affairs Manager

KWC:MJM:pmb

cc: E.L. Blake, W.M. Stevenson, G.W. Knighton, J.H. Wilson, R.D. Martin,
L. Constable, J. Boardman, NRC Resident Inspectors Office (W3)

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LP&L Response to NRC Region IV Letter dated October 27, 1986

I. NRC request for additional information on -

Subject - Violation No. 8442-01, Inadequate Procedures for Procurement of Spare Parts for Safety-Related Applications.

Reference - LP&L letter W3P85-0825 dated 4/10/85 - response to Violation 8442-01.

REQUEST: Describe the program for re-establishing the acceptability of safety-related items which were previously procured on down-graded purchase orders, and that have been installed in safety-related systems, components and structures.

RESPONSE: On November 1 and November 26, 1984 Waterford 3 management met with Region IV to review the issue of commercial grade spare parts for use in safety related applications (this issue encompassed the above question of installed commercial grade safety-related parts). During these wide-ranging discussions, most aspects of the commercial grade spare parts issue were addressed and, to our understanding, resolved with the Region.

As we noted on November 26, 1984 LP&L's then current procurement procedures met the intent of 10CFR50 Part 21 with respect to the "dedication" associated with procurement and use of commercial grade safety related spare parts. For instance,

1. Dedication occurs at the time of the order,
2. Purchase orders for commercial grade spare parts include certificates of compliance from the supplier which attest to meeting the purchase order requirements, and
3. Purchase orders for commercial grade spare parts include a "no substitution" clause.

Additionally, LP&L's then current procurement procedures met the intent of ANSI N18.7, Paragraph 5.2.13, "Procurement and Materials Control". For instance, engineering evaluations were routinely performed by requirements engineers. Further details of the Waterford 3 procedural history for evaluating the acceptability of commercial grade parts is discussed in Attachment 1.

Since our meeting, the commercial grade spare parts dedication process had been strengthened through refinement of the Spare Part Equivalency Evaluation program.

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As you will recall, LP&L management was curious as to how our procurement program in late 1984 would rate with other programs in the nuclear industry. To that end, we surveyed 11 nuclear utilities (7 of which had operational units at that time) and asked them if their procurement programs included certain of the elements contained in LP&L's program in 1984. The results, previously presented to Region IV, were as follows:

<u>Procurement Requirement</u>	<u>Included in Procurement Program</u>
Receipt inspection performed on commercial grade safety related spares	100%
Certificates of compliance imposed on suppliers	82%
Engineering evaluation (of some type) performed	73%
Commercial grade spares bought from approved suppliers (QSL)	27%
"No substitution" clause imposed on suppliers	18%

As we noted on November 26, 1984 the procurement program for Waterford 3 was generally ahead of the majority of the industry and merited recognition rather than censure. It is our understanding that these survey results and conclusions were later verified by Region IV.

During the period immediately prior to November, 1984, another NTOL nuclear utility had conducted an extensive investigation into the use of commercial grade material in safety-related applications. Basically, the utility reviewed all commercial grade purchase requisitions to identify any which were intended for use in safety-related systems, and, for those so identified, conducted an engineering evaluation to determine acceptability of the application. At great time and expense the study showed that all installed commercial grade components were acceptable for their safety-related application. (It is worthwhile to note that the above program consisted of a 100% review of all harsh environment EQ parts (the large majority of the effort) and a sampling of four safety systems for non-EQ parts. Waterford 3's EQ program provided essentially equivalent coverage for EQ parts.)

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During the November 26, 1984 meeting we noted that LP&L did not intend to conduct a similar program. The other utility's results had demonstrated that an enormous investment in personnel and money would lead to virtually no benefit when investigating the use of commercial grade parts in safety-related applications. We had, however, recently implemented the SPEER process, the initial results of which could be used to estimate the number of inappropriate safety-related applications of commercial grade parts. (As noted in the response to Question II, Spare Parts Equivalency Evaluation Reports (SPEERs) and Part Quality Determination (PQD) forms are used by LP&L to dedicate the use of a non-safety related component provided that the safety-related function is not degraded.) As we discussed with the Region on November 26, 1984, the number of unsuccessful (i.e., could not be dedicated) SPEERs was very low. Subsequent experience continues to confirm this fact. During 1984-1985, of 100 SPEERs conducted by the Waterford plant staff, only 3 were determined to be unsuccessful.

To provide additional confirmation of the end-use acceptability of downgraded spare parts, LP&L initiated SPEERs for the nine downgraded procurement packages identified in Inspection Report 84-42 (dated February 26, 1985). The SPEER results, which were documented in W3P85-0825 (dated April 10, 1985), indicated that the spare parts in question were acceptable for their intended use.

For the reasons cited above, as well as subsequent operational experience, LP&L is confident that the spare parts procurement process is adequate, meets the applicable regulations and provides assurance that no significant safety concern exists with respect to installed spare parts.

ATTACHMENT 1

Acceptability Evaluation

UNT-8-001, Preparation of Station Procurement Documents, is the prime procedure for determining the safety classification of spare parts, preparing purchase orders and evaluating the acceptability of a spare part for its end-use application. The procedure was first issued on May 31, 1979 as Revision 0 and is currently in Revision 9.

Revisions 0-3 (5/31/79 - 7/20/82)

NOTE: Revision 1 does not exist.

Although some particulars changed, through this period a Spare Parts Group (SPG) was responsible for performing evaluations to establish the safety classification for spare parts to be used in systems turned over from Ebasco. It was required that each major component and subcomponent (as applicable) be separately identified on a major component data sheet or subcomponent data sheet along with its safety classification and justification. Subcomponent data sheets were required when the SPG evaluator determined that a subcomponent of a safety-related major component should be classified as non-safety.

For each part to be ordered, the procedure required that a parts data sheet be completed. In addition, if a part of a safety-related major component or subcomponent should be classified as non-safety related, the SPG evaluator was to complete a part evaluation sheet which, through a series of questions, established the safety classification/requirements for the part.

The down-grading process was an inherent part of the SPG process. It would not be unusual for major safety-related components to have subcomponent parts evaluated as non-safety. While the down-grading was intended to occur at the beginning of the procurement process, Revisions 2-4 explicitly allowed re-evaluation at any time provided the subcomponent/parts evaluation sheets contained adequate justification.

Revision 4 (7/21/82 - 1/3/84)

At this time a formal Procurement Grade Level (PGL) classification was introduced to further refine the safety classification of spare parts. The PGL classification was documented on a PGL Evaluation Sheet.

Revision 4 also introduced a new process to justify the use of PGL-3 and PGL-4 (commercial grade) parts in safety-related equipment. Such use was allowed providing an analysis demonstrated that the quality or safety of the safety-related equipment was not degraded by installation of the part. Three types of justification were allowed:

- a. Duplication of original application (i.e. the original equipment was commercial grade),
- b. Engineering analysis (i.e. essentially a repetition of the original design process), and

c. Type testing.

The justification could be performed as part of the original purchase order or at any other time. Documentation was required on the Analysis and Justification For Use of PGL 3 & 4 Parts in Safety Applications form.

Revisions 5-9 (1/4/84 - Present)

With Revision 5, UNT-8-001 was entirely rewritten, and re-titled Processing of Procurement Documents. A number of major changes were introduced at this time.

In this process, plant staff are responsible for originating Material/Service Request (MSRs). Requirements Engineers (REs) in Procurement then compare the MSR with previous procurement documents including specifications and drawings. If the requested parts differ from the previous purchase, the MSR is returned to the originator (or retained by the RE, depending on the procedure revision) who may clarify the MSR, initiate a SPEER or initiate an SMR.

Revision 5 also introduced a large degree of conservatism in safety classification. If a requested part or service was dedicated for use in a safety-related system, structure or component the part or service was to be treated as safety-related.

Supplier exceptions to technical or quality requirements of a purchase order are recorded on a Major Exceptions form. For other technical or quality changes a Major Change form is used. The MSR originator or RE is required to evaluate the exception or change (on a SPEER if necessary) and forward the review for quality reviewer approval.

II. NRC request for additional information on -

Subject - Violation No. 8442-01, Inadequate Procedures for Procurement of Spare Parts for Safety-Related Applications.

Reference - LP&L letter W3P85-0825 dated 4/10/85 - response to Violation 8442-01.

REQUEST: Describe how existing procedures assure that previously procured items which are not installed (in storage) are approved by SPEER prior to use in safety-related applications.

RESPONSE: LP&L has used the receipt inspection process (most recently, QI-010-006) for the procurement program. Items received were inspected to verify that the purchase order requirements were met. Should requirements not have been met, a Discrepancy Notice (DN) was written. When the DN was resolved the item was placed in stores with the applicable quality level established. Safety-related items were green-tagged and were readily identifiable as satisfactory for installation in safety related systems. Items having a lower quality level could not receive a green tag.

Currently any item purchased as non-safety related could not have been issued from the warehouse, for use in a safety-related application, without performance of an engineering evaluation. In accordance with UNT-8-011, Stores, Issuing, Shipping & Receiving, safety-related items are "green tagged" in the warehouse with appropriate quality documentation. Upon receipt of a Request on Stores (ROS) for a safety-related component, warehouse personnel are required to precisely match the requested item with the stocked item, including its safety classification. Should the items not match, a process exists for determining the acceptability for use of a component providing the safety-related function is not degraded. UNT-7-021 and UNT-8-011 describe use of a Part Quality Determination (PQD) form completed by Plant Engineering. This form takes the Engineer through the appropriate thought process including a decision whether the item in question could be used even if it had been bought non-safety-related. Depending on the Engineer's answer, a Spare Parts Equivalency Evaluation Report (SPEER) may be generated.

This process was brought about by LP&L's conservative approach to material/warehouse control; i.e., if the item(s) were to be used as replacement in a safety-related system or component, then the item(s) had to have been stocked as safety-related. If this was not the case, a PQD was generated, initiating the engineering evaluation process.

The procedures discussed above provide assurance that previously procured commercial grade items are approved prior to use in safety-related applications.

III. NRC request for additional information on -

Subject - Violation No. 8501-01, Licensee Failure to Have Procedures to Assure Compliance with Waterford SES Unit 3 Operations Quality Assurance Program, Section 17.2.23, and FSAR Table 3.2.1, Note 12.

Reference - LP&L letter W3P85-1477 dated 9/19/85 - response to Violation 8501-01.

REQUEST: Describe actions taken to ensure that procurement activities for safety-related items, including installed items procured prior to the November 15, 1984, approval date of UNT-8-001, Revision 8, meet the requirements of Waterford 3 FSAR, Table 3.2-1, and 10CFR50, Appendix B.

RESPONSE: As discussed in the referenced letter, LP&L has included, in the current revision of UNT-8-001, an explicit requirement to review FSAR Table 3.2-1 in conjunction with procurement activities. However, the implication of the NRC's question is that procurement activities could be somehow deficient in not referencing FSAR Table 3.2-1 in previous versions of UNT-8-001. This is not the case.

Procedure UNT-8-001, "Processing of Procurement Documents", contains the LP&L requirements for procurement control. As noted in the initial LP&L September 19, 1985 (W3P85-1477) response on this subject, Requirements Engineers were responsible for consulting the FSAR (among other documents) to identify applicable purchase requirements. While an explicit reference to FSAR Table 3.2-1 was not included in UNT-8-001, it should be recognized that a multitude of source documents existed to aid the purchase requisition preparer in accurately determining the safety classification of spare/replacement parts. For instance, a typical requirement in UNT-8-001 (in this case, from Revision 7 dated August 28, 1984) directed that:

The Requirements Engineer is responsible for researching previous purchase documents and associated specifications and drawings to determine the applicable requirements to apply to the Purchase Requisition/Contract Requisition. He shall consult the FSAR, LP&L QAM, LP&L commitments and other regulatory documents to assure Procurement Documents reflect current requirements.

UNT-8-001 is not a stand-alone procedure. Personnel performing activities under UNT-8-001 are expected to work under all applicable procurement-related procedures. One such procedure in existence until February, 1985 is QP 4.12, "Determination of Safety Relationship of Spare or Replacement Components, Parts, Materials, and Services". This procedure applied to all LP&L personnel who originated

and reviewed purchase requisitions for spare or replacement component parts, materials and services. As the title implies, its purpose was, in part, to describe the basis for evaluation of replacement part requirements. As such, it directed the user to consider a number of source documents, including the FSAR, in determining the safety classification for replacement parts.

More importantly, both UNT-8-001 and QP 4.12 directed a careful examination of the effect of a replacement part failure or malfunction on the safety function of a major component or subcomponent. A typical series of questions (which varied somewhat depending on the procedure and revision) included:

- I. Will the failure or malfunction of the above-named part in the above-named component (or sub-component) adversely affect:
 1. The integrity of the reactor coolant pressure boundary?
 2. The capability to shut down the reactor and maintain it in a safe shutdown condition?
 3. The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the guideline exposures of 10CFR, Part 100?
- II. Will the failure or malfunction of the above-named part adversely affect the function or performance of the above-named component (or sub-component) or system?
- III. Are there any technical, documentation, or quality assurance requirements associated with this part?

Based on the responses to these questions the appropriate safety classification is selected for the replacement part. This type of "first principles" safety classification process is more rigorous and extensive than a simple review of FSAR Table 3.2-1.

FSAR Table 3.2-1 is a major component safety classification system which seldom contains the level of detail necessary to specify the safety classification of replacement parts. At best it would be a minor aid to the preparer of a purchase requisition (PR). Prior to November, 1984 the PR preparer was required to replicate the original purchase order specification. For instance, if the original equipment purchase had been electrical equipment (e.g. cables, relays, motors, switchgear) purchased as 1E, then subsequent spare/replacement purchases would duplicate the original. Should original specifications not be available or not include explicit details on a part, the evaluation process described above would apply.

The procurement process for the period covered by the NRC's question adequately specified appropriate safety classification for replacement parts. LP&L therefore feels that no further action in this area is necessary.

IV. NRC request for additional information on -

Subject - Violation No. 8504-01, Inadequate Documentation for Ebasco Safety-Related Ventilation Heating System and Replacement Parts Used with Charcoal Filters.

Reference - LP&L letter W3P86-0019 dated 2/14/86 - response to Violation 8504-01.

REQUEST: Provide the basis for acceptance of installed components and replacement parts on Ebasco purchase order NY 403556.

RESPONSE: During the NRC Inspector's visit that resulted in Violation 8504-01 certain documentation was not immediately available for review. Subsequently, the necessary documentation was retrieved, the substance of which is discussed below.

On June 22, 1976, an Ebasco Evaluation of the Industrial Engineering and Equipment Company (INDEECO) facility was performed and the vendor was found to be unsatisfactory. These evaluation results were documented in Ebasco letter VE-E-21-286 dated 7/26/76. Subsequently, upon satisfactory corrective action by INDEECO, the facility was considered acceptable (Ebasco letter VE-E-30-286-1 dated 9/23/76).

On November 18, 1976, a Vendor Quality Assurance Report documented that corrective actions were being implemented at the INDEECO facility and that production on Ebasco Purchase Order NY 403556 had not begun.

Ebasco performed source surveillances at the facility from November 18, 1976 to December 16, 1982 when it appeared the order was completed. Equipment was inspected by Ebasco before being released for shipment.

Review of the INDEECO files shows that the INDEECO QA program was found unsatisfactory during a QA Program Evaluation for another project (Laguna Verde) in 1978. A supplier manufacturing/service facilities QA Audit report on INDEECO (7/27/78) indicated that the facility itself was "Conditionally Satisfactory". A letter from Ebasco to INDEECO, dated August 4, 1978, further documents that the QA Manual was unsatisfactory but the facility was conditionally satisfactory.

Review of the files does not reveal documented acceptance of the INDEECO QA Manual until October, 1982 - about 4 years after the initial "unsatisfactory" determination. An evaluation of the facility was done on 10/13/82 and the facility was determined to be satisfactory.

However, as stated above, the 4 year span when the INDEECO QA Manual was disapproved applied to the Laguna Verde Project. INDEECO was still approved for Waterford 3 during that period. Because the Ebasco QA Project for Waterford allows procurement of hardware under a conditionally satisfactory program, and since source inspections were performed, QA Program requirements were satisfied and the quality of the components supplied on the subject purchase order was not affected.

V. NRC request for additional information on -

Subject - Violation No. 8504-03, Licensee Procedures for Maintenance of Equipment Qualification and Procurement of Spare Parts.

Reference - LP&L letter W3P86-0019 dated 2/14/86 - response to Violation 8504-03.

REQUEST: Describe actions taken to ensure that before the November 15, 1984, approval date of UNT-8-001, Revision 8, procured material met the final design specifications and purchase order revision.

RESPONSE: As part of the original response to the subject violation, LP&L committed to perform a review of specification changes and to assist in determining the impact of those changes on plant procurement activities. These activities have been completed as discussed below.

LP&L directed Ebasco to perform a review of selected Ebasco purchasing specifications for all technical changes to Waterford 3 to determine changes made to the specifications. The sample represents 33% of all safety-related/seismic Ebasco specifications. The selected Ebasco specifications represented plant equipment for which numerous spare and replacement parts are required. Upon receipt of the Ebasco specification review results, LP&L discipline engineers determined that all specifications reviewed by Ebasco contained technical changes from revision to revision.

A 20% sample of plant procurement documents was reviewed to determine the effect of using Ebasco specifications in the procurement activities. The purchase requisition sample turned up approximately 200 plant purchase requisitions which listed in some form a selected Ebasco purchase specification. These 200 requisitions were then reviewed by LP&L discipline engineers to determine what effect the Ebasco specification would have on the purchase document involved.

Based on this review, it was determined that the listing of Ebasco purchase specifications on plant purchase documents had little or no detrimental effect on the parts and components being procured and that no further effort should be expended on this activity. This conclusion was based on the following:

- 1) Most requisitions did not impose Ebasco specification requirements. The specification was merely referenced as being previously applicable by an earlier Ebasco purchase.