



LOUISIANA
POWER & LIGHT

June 9, 1983

50-382
W3K83-0781
Q-3-A28.07.01

Mr. John T. Collins
U.S. Nuclear Regulatory Commission
Region IV
Office of Inspection and Enforcement
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76012

SUBJECT: Waterford SES Unit 3, Report on Changes to the
Preliminary Safety Analysis Report (PSAR)

Dear Mr. Collins:

The Waterford SES Unit 3 Preliminary Safety Analysis Report (PSAR) was docketed by the AEC in December 1970. A description of the Louisiana Power & Light Quality Assurance Program to be applied to Waterford SES Unit 3 is documented in the PSAR, Volume 1, Section 1.8.

Pursuant to changes to 10CFR50.54 and 55 published in the Federal Register, Volume 48, No. 6 dated Monday, January 10, 1983, the following information relative to changes to the QA Program as originally described in the Waterford SES Unit 3 PSAR is submitted for your review and acceptance:

I. LOUISIANA POWER & LIGHT QUALITY ASSURANCE PROGRAM

In June of 1971, Louisiana Power & Light (LP&L) issued the Waterford SES Unit 3 Quality Assurance Program Manual. This manual was revised and reissued in January of 1975. There have been no significant changes to the LP&L QA Program relative to design and construction since that time. The January 1975 revision reflected the guidance contained in publication WASH 1309, 1974. This program enhanced the original commitments contained in the PSAR and continues to satisfy the criteria of 10 CFR 50, Appendix B. The basic difference between the PSAR and the present QA Program is in the area of organizational descriptions.

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- I. There have been only two changes to the PSAR description of the LP&L QA Program as follows:

A. Section 1.8.3.1.1 (page 1.8-2 through 1.8-4) entitled Quality Surveillance Committee.

The function of the Quality Surveillance Committee (QSC), now the Quality Assurance Committee (QAC) was changed in 1974. The functions of the Committee as listed in the PSAR were carried out by other organizations within LP&L such as the QA Section and the Nuclear Project Support Group. The table below lists the functions of the Committee as stated in the PSAR, and the procedures that were used to implement these functions:

The functions of the QSC are to:

- | | <u>Procedures</u> |
|--|---|
| 1. Verify the review or approval of: | |
| a. Design bases established for the project including all Preliminary Safety Analysis Report (PSAR) materials. | QP 6.1, QP 6.2, NAP-101, NAP-005 |
| b. All specifications | QP 6.2, NAP-005 |
| c. All drawings | QP 6.2, NAP-005 |
| d. All vendor Quality Assurance Programs including check points. | Accomplished through audits of Ebasco Vendor Qualification Program using QP 18.1. |
| 2. Monitor: | |
| a. Vendor Quality Assurance performance - by shop visits as needed. | QP 18.1, QP 18.5 |
| b. Vendor Quality Assurance documentation - by shop visits as needed and Ebasco shop inspector reports. | QP 18.1, QP 18.5 |

I. A. 3. Monitor Site Quality Compliance and Quality Control including:

- | | | |
|--|---|---------|
| a. Inspector and worker qualifications | } | QP 18.3 |
| b. Site quality compliance documentation | | QP 18.4 |
| c. Compliance and control inspection | | QP 18.8 |
| d. Storage and handling conditions | | |

The Quality Assurance Committee is chaired by the LP&L Quality Assurance Manager and is composed of the LP&L Nuclear Project Manager, Engineers from the LP&L Power Production Department and the Engineering Department, and a Quality Assurance Engineer from Middle South Services. The QAC has engineering specialists within LP&L and Middle South Services, and consultants available as necessary.

The Quality Assurance Committee is responsible for:

- a. Resolving disputes arising from differences of opinion between QA/QC personnel and other organizations.
- b. Reviewing the LP&L Quality Assurance Program, policies and activities.
- c. Following-up committee recommended action to assure compliance.

This reflects a change in the function of the QSC from a day to day management approach to a review and assessment approach by means of the QAC.

B. Section 1.8.3.1.2 (page 1.8-4 through 1.8-5) entitled Safety Review Committee, and Figure 1.8-1 entitled Quality Surveillance Organization

The composition and function of the Safety Review Committee (SRC) was changed to make the Committee more effective in controlling risks to the health and safety of the public. The following is the present description of the SRC:

The Safety Review Committee (SRC) is established to identify and evaluate significant risks which contribute to the potential for nuclear accidents and radiation exposure and to recommend what action should be taken to maximize the chances that potential

- I. B. accidents and losses can be tolerated and managed by LP&L. The SRC examines and judges the effectiveness of the overall Waterford SES Unit 3 system for controlling risks, including the effectiveness of the PORC, Onsite Safety Review Subgroup, and quality assurance activities. The operation of the SRC is described in Chapter 16 of the FSAR.

In general these were the only changes within the LP&L organization that affected the PSAR with the exception of title changes such as:

- o Quality Surveillance changed to Quality Assurance
- o Quality Surveillance Engineer changed to Quality Assurance Manager

Additionally, the attached Figure No. I-1 more closely reflects the LP&L organization at this time.

II. EBASCO QUALITY ASSURANCE PROGRAM

The Ebasco "Quality Assurance Manual for Nuclear Power Plants" (Black Book) was issued at the start of the Waterford SES Unit 3 project as the sole governing document for all quality-related activities by Ebasco which occur on the project. The purpose of the manual was to define the policies, procedures, and requirements used by Ebasco in the design, procurement, and erection of Waterford SES Unit 3. This program is documented in the PSAR and meets the requirements of 10 CFR 50, Appendix B. In July of 1975 Ebasco's Nuclear Quality Assurance Manual was approved for use at Waterford SES Unit 3 for site construction and procurement activities. This manual was accepted as a topical report (Ebasco Report ETR-1001, Revision 0, March 14, 1975) by the Nuclear Regulatory Commission for use in design, procurement, and construction activities for nuclear power plants. Report ETR-1001 commits Ebasco to comply with the requirements of 10 CFR 50, Appendix B and to follow the guidance provided by the NRC in:

- A. "Guidance on Quality Assurance Requirements During Design and Procurement Phase of Nuclear Power Plants," WASH 1283, Rev. 1, May 2, 1974; and
- B. "Guidance on Quality Assurance Requirements During the Construction Phase of Nuclear Power Plants," WASH 1309, May 10, 1974.

- II. The original "Quality Assurance Manual for Nuclear Power Plants" (Black Book), was retained for application to home office design and procurement activities as the major part of these activities were completed in July of 1975.

ETR-1001 has been implemented on the Waterford SES Unit 3 project since July 1975 and Revision 11 was accepted by the Nuclear Regulatory Commission on May 17, 1982. Since March of 1975 the NRC has stated that this report may be used as a reference in Chapter 17 of Safety Analysis Reports. See Attachments II-1 and II-2.

The basic Ebasco as well as the Ebasco Quality Assurance organizations were restructured to streamline the various organizations and to provide enhanced independence of the quality organizations. These can be summarized as follows:

- o The Site Quality Assurance Organization is headed by a Manager Site Quality Program to which Site Quality Control and Site Quality Assurance report. The Manager Site Quality Program reports directly to the New York Home Office Quality Assurance organization. The Quality Assurance organization reports to the Vice President - Corporate Quality Programs who reports to the President and Chief Operating Officer to keep pace with the growth and diversification of the organization.
- o The Site Construction Organization reports to the Site Manager who in turn reports to a Construction Manager and has the responsibility for direction and coordination of all on-site activities associated with the construction of the plant.

III. COMBUSTION ENGINEERING (CE) QUALITY ASSURANCE PROGRAM

A description of the CE QA Program to be applied to Waterford SES Unit 3 is documented in the Preliminary Safety Analysis Report (PSAR), Volume 1, Section 1.8.3.

The CE QA Program was further described in response to AEC Questions:

- o 1.16 (Amendment 5, August 1971),
- o 1.18 (Amendment 6, November 1971),
- o 1.19 (Amendment 14, May 1972), and
- o Also in Appendix 1.D (Amendment 44, January 1976).

The latter (Amendment 44) responded to Mr. Karl Kniel's letter of December 20, 1973 to Mr. J. M. Wyatt.

- III. For all nuclear contracts signed during and after 1970 which require compliance with 10 CFR 50, Appendix B, a Combustion Engineering, Inc., Quality Assurance Manual for Nuclear Steam Supply Systems was issued in October 1971. The manual describes the Quality Assurance Criteria for Nuclear Power Plants, and other applicable regulations and codes.

Significant controls included in the initial issue of the CE Quality Assurance Program that relate to design are multiple levels of quality assurance such as: quality assurance in design, safety and classification of equipment, quality assurance in manufacturing. In addition the CE QA Program contains a separate section presented in a format that corresponds to 10 CFR 50, Appendix B. This section describes the methods for compliance to the eighteen criteria in completing those items in the CE scope of supply which normally includes establishment of design criteria, safety analysis, systems and component design, manufacturing, quality control/inspection, and quality surveillance during manufacture. The last section of the manual consists of a cross reference of CE Quality Assurance Documents (procedures, instructions and specifications) that are used to ensure supplier and CE compliance to each of these eighteen criteria. A brief description of the documents is also included.

The CE QA Program has been revised, when needed, to be responsive to changing requirements and to include internally generated recommendations for improvements. The following chronological listing of revisions identifies the evolution of the program that was applicable to 1970 contracts to the present date.

- Quality Assurance Manual for Nuclear Steam Supply Systems - issued October 1971.
- Quality Assurance Manual for Nuclear Steam Supply Systems - Revision 1, March 23, 1972.
- Quality Assurance Manual for Nuclear Steam Supply Systems - Revision 2, July 31, 1973.
- Quality Assurance Manual for Nuclear Steam Supply Systems - Revision 3, June 21, 1974.
(Extensive changes including updating throughout for new requirements of the AEC Gray Book, ANSI Standards and the AEC October 1973 Draft on "Submittal of QA Program, Section 17, PSAR" as included in Revision 1 to the AEC Gray Book).

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- III. - Quality Assurance Manual for Nuclear Steam Supply Systems, Revision 4, January 1976.
 (Updated for new requirements of Regulatory Guides 1.70.0 (Revision 2, 9/75) and 1.70.6 (6/74). Added five descriptions of programs of CE manufacturing facilities and Construction Services.)
- Quality Assurance Program Topical Report CENPD-210A through Rev. 3, November 1977.

Quality Assurance Program Topical Report CENPD-210A replaced all previous issues and is the current CE program accepted by the Nuclear Regulatory Commission for use in the design, procurement, manufacturing, and construction of Nuclear Power Plants. Supplements were issued on June 20, 1980 and December 23, 1981 to provide updated organization charts after the changes were accepted by NRC. The Topical Report was prepared using the Standard Review Plan, Section 17.1, "Quality Assurance During the Design and Construction Phases", and 10 CFR 50, Appendix B. It is in compliance with the Standard Format and Safety Analysis Reports for Nuclear Power Plants. The NRC letter dated November 16, 1977, Acceptance of Revision 3 to QA Topical Report, includes the statement "The topical report can be referenced by report number in Section 17 of Safety Analysis Reports" as part of the Regulatory Position. The current NRC letter confirming implementation of the QA Program is dated June 2, 1981 (Attachment III-1).

Safety related design activities within the CE engineering organization have been performed to documented, detailed implementing procedures during the entire time span of the Waterford SES Unit 3 contract. Following an NRC inspection on January 19-22, 1976, it was concluded that the requirements from the multiplicity of individual engineering section procedures should be consolidated into a single set of procedures that could be more easily understood and uniformly implemented by all engineering groups performing safety related design activities. Therefore, the Quality Assurance of Design Manual (QADM) comprising a number of Quality Assurance of Design Procedures listed on the Table of Contents, Attachment III-2, was effective May 3, 1976 and superseded the individual procedures. While Attachment III-2 is the Table of Contents for the QADM implemented in 1976, it also represents the contents of the individual department procedures that were in effect prior to that date.

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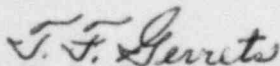
III. Implementation of the design control procedures is verified by internal audits (Engineering Quality Assurance), second tier CE audits (Group Quality Assurance), customer and architect engineer audits, NRC inspections, Authorized Inspection Agency audits and during triennial ASME surveys. (Nuclear Power Systems Engineering has an American Society of Mechanical Engineers Certificate of Accreditation - N-2037). A summary of functions and responsibilities of CE quality assurance groups, related to implementation of design control procedures follows:

- A. Engineering Quality Assurance (EQA) reports directly to the Vice President Engineering and is responsible for implementing the Power Systems Group Nuclear QA Manual in the Engineering and Development Departments. The responsibilities of this group include auditing all groups in the organization for compliance with approved procedures. EQA audits each Department annually to all applicable elements of the QA procedures.
- B. Group Quality Assurance reports to the President, Power Systems Group, through the Vice President, General Services and is responsible for defining the Group Quality Assurance Program and for ensuring compliance with the Program throughout the Power Systems Group. The responsibilities of this group includes the performance of annual audits of Engineering and Engineering Quality Assurance.

The above describes the CE documented design control program that was in effect during the period of interest.

In summary, the above describes the documented quality programs, (LP&L, Ebasco, and CE) that were in effect during the period of design, procurement, and construction of the Waterford SES Unit 3 project and supports the LP&L position that the QA Program for the project meets the requirements of 10 CFR 50, Appendix B.

Very truly yours,



T. F. Gerrets
Quality Assurance Manager

TFG:RAH:VBR

Attachments

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