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ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

August 29, 1984

U. S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

ATTENTION: Mr. Thomas E. Murley
Regional Administrator

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2, Docket Nos. 50-317 & 50-318
IE Bulletin 83-07; Apparently Fradulent Products Sold by Ray Miller, Inc.

REFERENCES: (a) Letter from Mr. A. E. Lundvall, Jr., to Mr. T. E. Murley dated March 22, 1984

(b) Letter from Mr. S. D. Ebneter to Mr. A. E. Lundvall, Jr. dated June 18, 1984.

Gentlemen:

Reference (a) transmitted our response to IE Bulletin 83-07. Reference (b) requested additional information regarding Item 4 of the Bulletin. This letter transmits supplemental information addressing the general concerns expressed in the Bulletin under Item 4. Short-term corrective actions were addressed in Reference (a). In reviewing Item 4, we note that the Bulletin was structured in a manner that produced some confusion on the requirement for responding to the issues raised regarding control of safety-related procurement activities. We regret any inconvenience this may have caused.

We have discussed the general concerns of the Bulletin with Region-I based personnel. We concur with the comments provided by the Inspection & Enforcement Technical Contact. An effective Quality Assurance Program substantially addresses the general concerns of the bulletin. The following discussion provides a description of the Quality Control measures used at Calvert Cliffs. We have structured this description to be sensitive to the control of quality for parts procured for use in safety-related systems at our facility.

IE 11

CONTROL OF QUALITY

BG&E personnel in the Electric Engineering (EED) and Quality Assurance (QAD) Departments determine whether contractors and suppliers who provide safety-related material and components are able to provide products of acceptable quality. The quality of purchased material, equipment, and components is controlled by procurement documents, supplier selection, supplier surveillance, and receipt inspection. These four Quality Assurance programs ensure that only high quality products that meet all specified requirements are procured for use at Calvert Cliffs. Reviews, inspections, surveillance, and audits are conducted by personnel qualified and trained in the field of Quality Assurance and Control.

Procurement Documents

Controls have been established specifying the sequence of actions to be followed in the preparation review, approval, and control of procurement documents. These controls ensure that safety-related materials, parts and components are identified to prevent the use of incorrect or defective items. Procurement documents require that certification be furnished identifying items by purchase order number and specific procurement requirements specified by codes, standards, etc.

We utilize four main approaches to safety-related procurement.

1. **Specification Method:** Establishes controls that must be exercised during the manufacture of a safety-related item to ensure that QA requirements will be met. Additionally, safety-related items are obtained only from vendors who have been approved by our Responsible Design Organization (RDO) and QA personnel. The RDO ensures that the purchase specification:

    a. contains or references technical requirements for the basis of design, including the applicable regulatory requirements, component and material identification requirements, drawings, specifications, codes and industrial standards, test and inspection requirements, and special process instructions for such activities as welding, heat treating, nondestructive testing, and cleaning.

    b. identifies applicable requirements of 10 CFR 50, Appendix B, that must be complied with and described in the supplier's QA program.

    c. requires that major contractors designated as our agents to purchase safety-related items or services must have procurement controls ensuring that they purchase or acquire these items or services in compliance with applicable sections of ANSI N45.2.13.

d. identifies required documentation (i.e., drawings, specifications, procedures, inspection and fabrication plans, inspection and test records, personnel and procedure qualifications, and material chemical and physical test results) to be prepared, maintained, and submitted, as applicable, to us or the purchaser for review and approval.

e. identifies records that must be retained, controlled, maintained, or delivered to us or the purchaser before use or installation of hardware.

f. specifies our or the procuring agency's right of access to supplier facilities and records for source inspections and audits.

Assigned QA personnel review these specifications to verify adequacy of quality requirements. Changes made to procurement specifications are subject to the same level of review that was applied in preparing and processing the original documents.

2. **Verification Method:** Specifies tests or measurements that must be made on an item to establish that requirements have been met. For this method there is no requirement that the vendor have a QA program, but if the vendor does not, then the tests or measurements must be performed by qualified company personnel or a subcontractor that has an approved QA program.

3. **Catalog Method:** A method similar to the Specification Method used to procure mass produced standard items such as gaskets, ball bearings, o-rings, etc. To satisfy this method there must be evidence of the following:

a. An auditing organization such as Coordinating Agency for Supplier Evaluation, another utility, a major contractor to BG&E, etc., has verified that the supplier has a QA program that complies with 10 CFR 50, Appendix B, or similar requirements, to ensure that guidelines described in ANSI N45.2.13 for the Unique Order Method can be met. It should be noted that we are committed to ANSI N45.2.13 Draft 2, Revision 2 (10/73).

b. The manufacturer has been producing a particular standard item for a sufficient period of time to establish a history of operating quality indicating the item's significant characteristics perform satisfactorily and that the manufacturer's QA program is sufficient to control these significant characteristics.

c. The procurement documents reference part numbers or descriptions and additional requirements are specified, as necessary, ensuring items ordered can be identified and verification can be made that the item received is the item ordered.

d. When applicable, the procurement document specifies that documents shall be supplied with items to establish in-process tests, inspections, etc., have been made.

4. **Commercial Quality Method:** Another variation similar to the Specification Method used to obtain items that have a safety-related function, but do not require any controls beyond those available on commercial items. For Commercial Quality purchases, Vendors are not required to have an approved QA program. In the event a supplier develops an undesirable history, appropriate action is taken. This method is used when it has been established that sufficient competition within the industry and experience with the product ensures variations in quality are not likely to prevent fulfilling a safety-related function.

Supplier Selection

Purchase orders for safety-related items are not placed with a supplier unless sent to Purchasing & Stores (P&S) Department with the specification indicating that the supplier has been investigated and found to have a satisfactory program or record as follows:

1. The Engineering Quality Assurance Unit has verified that the supplier has an implemented QA program complying with either QA requirements specified in the procurement specification or applicable sections of ANSI N45.2.13.

   The Quality Assurance Department evaluates the supplier's overall QA organization and program in accordance with applicable codes and standards, or parts of 10 CFR 50, Appendix B. Reviews include consideration of company organization, procedures, qualification of QA personnel, procedures for review and control of design documents, manufacturing procedures, calibration practices, acceptance criteria, and requirements and controls imposed by the supplier on his subcontractors.

   A supplier evaluation is conducted by using procedures or checklists that identify the QA requirements of applicable codes or regulations. It is important to note we do not use an Approved Vendor's List for suppliers when making purchases using the Commercial Quality or Verification Methods.

2. Our Responsible Design Organizations have verified that the supplier is capable of supplying the goods specified in the procurement specification. The supplier's QA programs are evaluated in terms of at least one of the following:

   - The supplier's history of supplying items to meet procurement requirements.

   - The supplier's current quality records, supported by documented qualitative information that can be objectively evaluated.

   - The supplier's technical and quality capability as determined by verifying program compliance and implementation.

Supplier Surveillance

The purpose of surveillance is to provide a sampling review of the supplier's implementation of a QA program or of the conformance of his product to the requirements of the purchase specification. Supplier surveillance is performed if conformance with the requirements of the procurement specification cannot be determined when the item is received or it is also performed to randomly verify QA program compliance.

Receipt Inspection

Our P&S Department is responsible for receiving and storing materials, parts, and components. Purchased safety-related items received at Calvert Cliffs are inspected to verify that all requirements of the procurement documents have been met. If a discrepancy is observed, the information is recorded on the receipt inspection report, and the discrepant item is tagged indicating the nonconformance and placed in a separate hold area. If an item is found acceptable, it is identified with a tag to indicate that it is approved for installation and use. The Operations Quality Assurance Section of the Quality Assurance Department ensures that inspections are performed on all safety-related materials, components, and equipment received in accordance with the Procurement and Storage Manual. Receipt inspection of material and equipment is performed in accordance with the following:

1. Verification that the material, component, or equipment is properly identified and that it corresponds with the documentation received.

2. Unless other procedures are specified in the shipping documents, items are visually inspected to verify that stated packaging and shipping requirements have been maintained.

3. Items are inspected upon receipt to verify that procurement requirements have been met.

4. Procurement records are inspected and judged acceptable in accordance with predetermined inspection instructions before installation or use of material, components, or equipment.

All safety-related items received are placed in a segregated receipt inspection area until it can be established that the items and their associated documentation meet procurement specifications or other controls for their acquisition.

SUPPLEMENTARY CONTROLS

In addition to the various QA programs, there exists several supplementary controls to help identify potential problems with components and equipment. 10 CFR 50.55(a) specifies that all licensees will implement testing and inspection programs in accordance with Section XI of the ASME Code.

At Calvert Cliffs, the Surveillance Test Coordinator-Operations is responsible for Inservice Testing of Pumps and Valves as described in Section XI of the Code. Tests are performed on all pumps after replacement or major maintenance. In addition, each pump is tested at least once each month regardless of plant condition unless system safety is affected. After a valve or its control system has either replaced, repaired, or has undergone maintenance that could affect its performance, it is tested as necessary to demonstrate performance parameters are within acceptable limits. Moreover, all valves and their associated systems are tested at least once every three months. This method of testing provides a means for verifying that safety related equipment (whether its material condition falls suspect to the general concerns expressed in the Bulletin) remains functional throughout the service life of such equipment.

In compliance with 10 CFR 50.55(a), the Inservice Inspection Program also evaluates and identifies potential material and equipment problems. This program is structured to locate and discover faulty or inadequate components before a failure occurs. Dealing primarily with piping and static structures, the Inservice Inspection Program is described and defined in Section XI of the ASME Code.

Calvert Cliffs has an operating experience review function in place which analyzes applicable industry and plant data bases in a summary way to identify trends or events adverse to equipment performance or efficient operation. This review function provides one additional mechanism for detecting incipient failure modes which may result from frauduient vendors or their products. Since this is an ongoing function, we are confident that if adverse indications occur in the future, they will be recognized and appropriate actions will be taken.

Quality controls such as procurement and storage, surveillance testing, and inservice inspection provide redundant methods to prevent faulty and fradulent products from being received, installed and used on a continuing basis in safety-related systems at Calvert Cliffs. In our opinion, these controls adequately address the general concerns of IE Bulletin 83-07.

Should you have further questions regarding this matter, please contact us.

Very truly yours,

Norman Bormaker
for A.E. Lundvall, Jr.

AEL/LOW/mts

cc: D.A. Brune, Esquire
G.F. Trowbridge, Esquire
D.H. Jaffe, NRC
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