U. S. ATOMIC ENERGY COMMISSION

DIRECTORATE OF REGULATORY OPERATIONS"

REGION I

REPORT OF VENDOR INSPECTION

RO VENDOR INSPECTION REPORT NO. 50-363/74-01 DOCKET NO: 50-363

LICENSEE: Jersey Central Power and Light Company LICENSE NO:) CPPR-96

Parsippany, New Jersey PRIORITY;

Forked River CATEGORY: A

VENDOR NAME: Klein, Schanzlin & Becker (KSB)

LOCATION: Frankenthal, Germany

TYPE OF LICENSE: PWR-MW(e) 1070

TYPE OF INSPECTION: Vendor, Announced

DATES OF INSPECTION: April 23-26, 1974

DATES OF PF TOUS INSPECTION: November 5-6, 1973

PRINCIPAL INSPECTOR: _____ DATE

INSPECTOR-IN-CHARGE: Ross L. Brown 5/15/74
Ross L. Brown, Reactor Inspector DATE

OTHER ACCOMPANYING PERSONNEL: None _____ DATE

REVIEWED BY: J. H. Tillou 5-15-74
J. H. Tillou, Senior, Reactor Inspector DATE

BKSO

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Ross L. Brown, Reactor Inspector DATE

OTHER ACCOMPANYING PERSONNEL: None _____ DATE

REVIEWED BY: J H Tillou 5-15-74
J. H. Tillou, Senior, Reactor Inspector DATE

SUMMARY OF FINDINGS

Enforcement Action

None

Licensee Action on Previously Identified Enforcement Items

Not applicable

Design Changes

None

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

1. Three of the pump assemblies have been successfully hydrostatic tested at 3750 psig/104°F for one hour. The tests were witnessed by KSB, Hartford Steam Boilers (the authorized inspection agent) and Combustion Engineering or their inspection agency, TUV.

2. Unacceptable vibrations during performance testing. (Details, Paragraph 3)

B. Status of Previously Reported Unresolved Items

1. Implementation of the revised QA program relative to handling deviation disposition requests appeared to be satisfactory. This item is considered resolved. (Details Paragraph 4)

2. The upgrading of these pumps to the requirements of ASME Codes 1971 Winter Addenda appeared to be satisfactory. This item is considered resolved. (Details, Paragraph 5)

Management Interview

A. The inspector conducted a meeting with the following management representatives at the conclusion of the inspection.

1. Persons Participating

General Public Utilities (GPU)

B. G. Avers, Manager, Quality Assurance

Combustion Engineering (CE)

J. C. Moulton, Project Manager
W. K. Couch, Vendor Quality Assurance
M. Carucci, Vendor Quality Control Representative

KSB

Dr. K. Forster, Controller
W. Stipp, Manager, Quality Planning
F. Diebold, Project Manager
M. Dilly, Quality Control Representative
E. Blocklinger, Manager, Quality Assurance
R. R. Zieschany, Manager, Laboratory

Hartford Steam Boiler

J. W. Ford, Authorized Inspector

B. The following items were discussed.

1. The inspector discussed the AEC procedure for handling inspection reports prior to their placement in the Public Document Room.

2. The inspector stated that the KSB record especially the DDR's should be reviewed to determine that all required cross-referencing is included to verify that the specified quality levels are being obtained, however, it is possible to make this determination by a review of other documents.

   The vendor stated that record review will be made and the necessary corrective action will be taken.

3. The inspector stated that the open items from the November, 1973, AEC inspection appears to have been satisfactorily resolved. (Details, Paragraphs 4 and 5)

4. The inspector stated that the general cleanliness of the test area and the pump components stored in the test area must be improved.

The vendor stated that the pumps will be disassembled, cleaned and reassembled prior to shipment, however, the condition will be reviewed and the necessary corrective action taken to maintain a higher cleanliness level in this area.

DETAILS

1. Persons Contacted

GPU

B. G. Avers, Manager, Quality Assurance

Combustion Engineering

W. K. Couch, Vendor Quality Assurance
J. C. Moulton, Project Manager
M. Carucci, Vendor Quality Control Representative

KSB

E. Blocklinger, Manager, Quality Assurance
W. Stipp, Manager, Quality Planning
F. Diebold, Project Manager
M. Dilly, Quality Assurance Representative

2. General

a. All four pump casings have been received at KSB from the Klockner Company.

b. The one pump casing that will be used to conduct performance tests on all four pump internals has been installed in the test loop.

3. Unacceptable Vibration During Performance Tests

During the first few hours of the performance test the strain gauges attached to the flow splitters in the suction elbow detected unacceptable high frequency vibrations.

The flow splitter will be removed and a complete performance test conducted to verify that the specified requirements have not been compromised.

The CE representative stated that this modification to the primary coolant system is not the type of a change that requires a notification to DL and consequently will not be reported, however, the final system design will be included in the final safety analysis report.

4. Implementation of the Revised Quality Assurance Program

The inspector audited majority of the DDR's issued to date against these four pumps and the disposition of the condition is identified in the DDR's are properly signed. This item is considered to be resolved.

5. Upgrading of These Pumps to the ASME Code 1971 Winter Addenda

The inspector reviewed a summary report of the review conducted by KSB Engineering, Quality Assurance and Stress Analyst relative to upgrading these pumps to the requirements of the ASME Code Sections II, III, IX, 1971 edition and including the Addenda through Winter 1971.

The report stated that there was no technical changes in the later Addenda. There was, however, formality changes.

The vendor stated that the documents in the quality files would not be changed to state Winter 1971 Addenda and that the files will, however, contain a statement that the pumps are in conformance with the Winter 1971 Addenda.

6. Record Review

The inspector selected on a random basis records from the final quality package that is being prepared for each of these pumps and reviewed them in detail to verify conformance with the codes and specification requirements.

The following records were reviewed:

a. Welders and welding procedure qualifications

b. Nondestructive examination personnel qualifications

c. Weld metal certification including delta ferrite

d. Nonconformance reports and repairs routing sheets and sign-off

e. Material certifications for pump casing no. 1

No violations or deficiencies were identified.

7. Observation of Work

The inspector witnessed the hydrostatic test of pump casing no. 1.

The casing was tested at 3750 psig at 104°F and maintained at pressure and temperature for 60 minutes. No detectible leaks were noted.