DR Central Files

UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137
TELEPHONE
(312) 858-2660

January 13, 1972

Wisconsin Public Service Corporation
ATTN: Mr. E. W. James, Vice President
Power Generation and Engineering
P. O. Box 1200
Green Bay, Wisconsin 54305

Docket No. 50-305

Gentlemen:

This refers to the inspection conducted by Messrs. Jones and Erb of this office on November 17 - 19, 1971, of construction activities at the Kewaunee site authorized by AEC Construction Permit No. CPPR-50 and to the discussion of our findings at the conclusion of the inspection with you and Messrs. Mathews, Solboe, and Dreher of your staff.

Areas examined during the inspection included quality documentation and/or installation activities related to the reactor pressure vessel, steam generators, core support and upper barrel flange forgings, reactor coolant circulating pumps, boric acid storage tanks, and control rod guide tube assemblies. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with plant personnel, and observations by the inspectors.

The inspectors also examined actions you have taken with respect to the items identified in your letter of November 10, 1971, relating to matters previously brought to your attention. We have no further questions on these matters.

No items of noncompliance with AEC requirements were identified within the areas examined during this inspection.

With regard to questions raised during this inspection, we understand that you intend to: (1) provide us with information, as soon as possible, regarding the return of reactor coolant pumps to the manufacturer for "fit" modifications, (2) obtain information for our review related to the procedures used to anneal the core support and upper barrel flange forgings, (3) review "clean room" conditions in

the control room and reactor core internals assembly areas, and to take corrective action as needed, (4) review the status of stress analysis for the reactor pressure vessel and closure head, and (5) review the status of stress analysis for the steam generators. Our inspectors will examine your action on these matters during our next routine inspection.

No reply to this letter is necessary; however, should you have questions concerning this inspection we will be glad to discuss them with you.

Sincerely yours,

Boyce H. Grier
Regional Director

cc: Mr. E. R. Mathews, Manager
Power Engineering
Mr. L. O. Ramsett, Quality
Assurance Supervisor
Mr. M. F. Dreher, Quality
Control Supervisor, Site

bcc: J. B. Henderson, CO
J. G. Keppler, CO
L. Kornblith, CO
R. H. Engelken, CO
A. Giambusso, CO
P. A. Morris, DRL
CO Files
DR Central Files
PDR
Local PDR
NSIC
R. L. Shannon, DTIE

UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

TELEPHONE
(312) 858-2660

January 11, 1972

J. B. Henderson, Chief, Reactor Construction Branch
Division of Compliance, Headquarters

WISCONSIN PUBLIC SERVICE CORPORATION (KEWAUNEE)
DOCKET NO. 50-305

The attached report of a routine inspection at the subject facility construction site on November 17 - 19, 1971, is transmitted for information. No items of noncompliance, nonconformance, or safety problems were encountered during the inspection.

W. E. Vetter
Senior Reactor Inspector

Attachment:
CO Rpt No. 050-305/71-06 by
C. E. Jones

cc: J. G. Keppler, CO
E. G. Case, DRS (3)
R. S. Boyd, DRL (2)
R. C. DeYoung, DRL (2)
D. J. Skovholt, DRL (3)
H. R. Denton, DRL (2)
A. Giambusso, CO
L. Kornblith, CO
R. H. Engelken, CO
CO Files
DR Central Files

U. S. ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE

REGION III

CO Inspection Report No. 050-305/71-06

Subject: Wisconsin Public Service Corporation
Kewaunee
Kewaunee, Wisconsin

License No. CPPR-50
Priority: N/A
Category: B

Type of Licensee: PWR (W) - 560 Mwe

Type of Inspection: Routine, Unannounced

Dates of Inspection: November 17 - 19, 1971

Dates of Previous Inspection: October 20 - 21, 1971 (Test and Startup Unit)

Principal Inspector: C. E. Jones — Jan 13 1972 (Date)

Accompanying Inspector: C. M. Erb — Jan 13, 1972 (Date)

Other Accompanying Personnel: None

Reviewed By: W. E. Vetter, Senior Reactor Inspector — 1-14-72 (Date)

Proprietary Information: None

SECTION I

Enforcement Action

A. Noncompliance: None

B. Nonconformance: None

C. Safety Items: None

Licensee Action on Previously Identified Enforcement Matters

Corrective action was required by the licensee relative to two items of noncompliance (CO Report No. 050-305/71-04) as a result of the inspection of August 24 - 26 and September 15, 1971. These items were (1) the apparent lack of formal procedures for use in initiating, performing, and approving field design or field engineering changes and, (2) the waiver of quality design specifications without proper approval and without documentation to establish justification for the waivers or performance of a design review.

The corrective action proposed by the licensee was reported by letter, E. W. James to B. H. Grier, dated November 10, 1971, and stated that those concerned would adhere to the Wisconsin Public Service Quality Assurance Manual instruction, "Procedure for Reporting of Nonconformance and Resolution in Material, Equipment, Procedure, and Design". Also, Mr. James stated that action had been initiated to insure that the above procedure is followed without fail. The letter was considered to be responsive, and these items will be reviewed during a subsequent inspection.

Unresolved Items

A. A review of the documentation common to the reactor pressure vessel and closure head established that the ASME Code Manufacturer's Data Sheets were not included. Neither of the components had received the ASME Section III Code Stamp. (Paragraph 7)

B. The Westinghouse QCR's for the steam generators and the pressurizer identified various Error Appraisal Notices (EAN's) issued during equipment fabrication. The subject EAN's had been prepared and/or reviewed and accepted by Westinghouse. (Paragraph 8)

C. Documentation for the core support and upper barrel flange forgings indicated that an annealing process was used. However, the documentation did not include any of the details relating to the annealing process. (Paragraph 9)

D. The review of installation records for the reactor coolant circulating pumps was postponed until all records were available when the inspectors were informed that the shaft and rotor assemblies for both pumps had been returned to the fabricator for rework. The rework reportedly consisted of machining the pump shaft to fit the impeller.

Status of Previously Reported Unresolved Items

Documentation, including the Quality Control Release (QCR) and supplemental TWX from Westinghouse concerning instrument inverters was reviewed. Quality documentation is now adequate, and this matter is considered to have been resolved.

Design Changes: None

Unusual Occurrences: None

Persons Contacted

The following personnel were contacted during the inspection:

Wisconsin Public Service Corporation (WPS)

E. R. Mathews, Manager - Power Engineering
L. O. Ramsett, Quality Assurance Supervisor
N. E. Knutzen, Construction Superintendent
M. F. Dreher, Quality Control Supervisor
G. V. Fitzpatrick, QC Engineer (Mechanical)
E. E. Mitchell, QC Engineer (I&C)
W. J. Proper, QC Engineer (Receiving and Storage)
D. E. Weinberg, Construction Engineer (Mechanical)

Pioneer Service and Engineering Company (PS&E)

J. P. Engelbrecht, QC Engineer
V. R. Gross, QC Engineer

Westinghouse Corporation (Westinghouse)

J. W. Schultz, Project Engineer (Site)

Management Interview

A management interview was conducted at the completion of the inspection.

Personnel in Attendance

Wisconsin Public Service Corporation (WPS)

E. W. James, Vice President, Power Generation and Engineering
E. R. Mathews, Manager, Power Engineering
*R. A. Solboe, Superintendent, Steam Plants
M. F. Dreher, QC Supervisor

Discussion

A. The licensee was informed that a planned review of quality documentation related to the reactor coolant pumps had been postponed because the pumps had been returned to the fabricator to permit the shafts to be machined to fit the impellers. The licensee agreed to provide information, as soon as possible, regarding the extent of pump modifications and the dates for the return of the pumps to the construction site.

B. The inspector commented on the fact that the reactor pressure vessel and closure head had not received the ASME Section III Code Stamp and, additionally, they expressed their surprise that the stress analysis had not been completed as required by ASME Code. The licensee stated that the status of the stress analysis would be reviewed. (Paragraph 7)

C. A documentation review of the accumulator and steam generators, the inspector said, indicated that these records met regulatory requirements but did include several error appraisal notices (EAN's) issued during fabrication or assembly and approved by Westinghouse. The inspectors added that the stated resolution of two of these EAN's was dependent upon the results of stress analyses yet to be completed. Mr. James said that the status of the stress analyses would be reviewed. (Paragraph 8)

The inspector informed the licensee that, following a review of updated records in the site files, he had no further question regarding documentation for the instrument power supply inverters.

D. The inspector questioned the details of annealing of the core support and upper barrel flange forgings stating that the records indicated that these forgings had been annealed but that no detailed procedures were available for review. The licensee agreed to take steps necessary to obtain this information.

* Attended part time.

E. The licensee was informed that the inspector considered "clean room" conditions in the control room and the reactor core internal assembly areas less than desirable. Mr. James said the cleanliness requirements in both locations would be reviewed and corrective action initiated.

F. The inspector commented on the Error Appraisal Notices (EAN's) and lack of final stress reports for components of the primary system and asked if these EAN's were reviewed and approved by WPS. Mr. James replied that the matter would be "investigated by WPS and was told by the inspector that such a review and approval on the part of the licensee would be evaluated prior to plant licensing.

SECTION II

Additional Subjects Inspected, Not Identified in Section I, Where No Deficiencies or Unresolved Items Were Found

1. General

Overall construction is estimated to be 80 percent complete and the current estimate for construction completion is April 1972. Hot functional testing is scheduled for June with fuel loading to follow. Commercial operation is scheduled for December 1972.

The pressurizer, including the heaters and the two steam generators are installed. Piping connections joining the reactor pressure vessel, steam generators, and pressurizer are currently in progress.

The lower core barrel has been installed in the reactor pressure vessel. The upper assembly has been set up in the internals storage area where alignment tests of control rod clusters were in progress.

2. Boric Acid Tanks

Documentation

a. Review of receiving inspection.

b. Special handling and storage precautions.

c. Quarantine of nonconforming parts.

d. Installation specifications and procedures.

e. Use of expertise in installation.

f. Installation inspections.

g. Storage inspection.

Observation of Work

a. Inspection of installed tanks.

b. Protection of components.

c. Cleanliness.

d. Review of records.

3. Control Rod Guide Tube Assembly

Record File Review

a. Westinghouse QCR's.

b. Observed work in progress.

4. Reactor Pressure Vessel (RPV)

Observed records, storage, and installation techniques for studs, nuts, and washers.

5. Safety Injection System Accumulator (1A)

The QC system and implementation of the QA Program were reviewed. Installation records and procedures for system cleanliness were also reviewed. Observed work in progress involving final piping connections.

6. Steam Generator

Implementation of QA/QC programs was reviewed. Records of steam generator installation were reviewed. Steam generator installation on their respective supports were observed including the completed welds joining the two halves of each generator.

The EAN's issued for the steam generator were reviewed and it was found that all had been reviewed and accepted, based on other approval, or approved by Westinghouse during fabrication.

Details of Subjects Discussed in Section I

7. Reactor Pressure Vessel (RPV)

Nuclear code stamps have not been placed on the RPV or closure head. The licensee said that the inspector for the Hartford Inspection and Insurance Company had not been provided a copy of the stress analysis by Combustion Engineering. As a result, ASME Code Manufacturer Data Sheets were not available.

The vessel was authorized for shipment to the site by the Westinghouse Quality Assurance representative, W. W. Owens, on December 15, 1970. QCR No. 0654 covered the RPV (National Board 21010, Serial No. CE 69102) and the closure head (Serial No. CE 69202).

8. Error Appraisal Notices (EAN's)

A number of EAN's were issued for the steam generators and the pressurizer. The EAN's have been reviewed and accepted or approved by Westinghouse, noted as exceptions, and filed with appropriate accompanying documentation. Two EAN's, related to a steam generator, states that the final stress analysis will justify undersized ligaments and two oversized holes in the tube sheet. These matters will be reviewed further during subsequent inspections.

9. Core Internals

Site records indicate that the core support and upper barrel flange forgings were annealed but failed to indicate any specific procedure or time-temperature limits. The licensee said his representative would review records concerned with the annealing process during an audit of Westinghouse facilities scheduled to occur early in January 1972.

UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137
TELEPHONE
(312) 858-2660

January 7, 1972

Wisconsin Public Service Corporation
ATTN: Mr. E. H. Jones, Senior Vice President
Power Generation and Engineering
P. O. Box 700
Green Bay, Wisconsin 54305

Docket No. 50-305

Gentlemen:

This refers to the inspection conducted by Mr. Fiereboed of this office on December 6-9, 1971, of your activities at the Kewaunee Nuclear Power Plant authorized by AEC Construction Permit No. CPPR-50 and to the discussions with Mr. Mathews and other representatives at the company's corporate office on December 8, 1971.

Areas examined during this inspection included provisions for coordinating construction and preoperational testing activities and preliminary drafts of preoperational test procedures. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with plant personnel, and observations by the inspector.

No items of noncomformance with AEC requirements were identified within the scope of this inspection.

No reply to this letter is necessary; however, should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely yours,

Boyce H. Grier
Regional Director

cc: E. R. Mathews, Manager, Power Engineering
L. O. Armenio, Quality Assurance Supervisor
C. W. Giesler, Superintendent, Nuclear Power
bcc: J. G. Keppler, CO (6)
A. Giambusso, CO
L. Kornblith, CO
R. H. Engelken, CO
DR Central Files
J. B. Henderson, CO