



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30303

Report Nos.: 50-438/84-16 and 50-439/84-16

Licensee: Tennessee Valley Authority  
500A Chestnut Street  
Chattanooga, TN 37401

Docket Nos.: 50-438 and 50-439

License Nos.: CPPR-122 and CPPR-123

Facility Name: Bellefonte 1 and 2

Inspection Dates: August 6-9, 1984

Inspection at Bellefonte site near Scottsboro, Alabama

Inspector: E. H. Girard  
E. H. Girard

8/20/84  
Date Signed

Approved by: J. J. Blake  
J. J. Blake, Section Chief  
Engineering Branch  
Division of Reactor Safety

8/21/84  
Date Signed

SUMMARY

Areas Inspected

This routine unannounced inspection involved 26 inspector-hours on site in the areas of procedure review, work observation, and records for safety-related components.

Results

No violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*L. S. Cox, Project Manager
- \*P. C. Mann, Nuclear Licensing Unit Supervisor
- \*D. C. Smith, Compliance Supervisor
  - R. Gipson, Mechanical Systems Engineer
  - R. Millen, Mechanical Systems Engineer
  - J. Campbell, Material Services Unit Supervisor
- \*B. F. Painter, General Construction Superintendent
- \*R. E. Young, Construction Engineer
- \*B. J. Thomas, Quality Manager
- \*K. Mali, Project Engineer, Licensing Staff

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on August 9, 1984, with those persons indicated in paragraph 1 above. The licensee was informed of the inspection findings listed below. The licensee acknowledged the inspection findings with no dissenting comments.

Inspector Followup Item 438, 439/84-16-01, Status of Manufacturer's Manuals and Related Documentation, paragraph 5.

Unresolved Item 438, 439/84-16-02, Implementation of Maintenance Requirements for Valves, paragraph 5.

### 3. Licensee Action on Previous Inspection Findings

Not Inspected.

### 4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. A new unresolved item identified during this inspection is discussed in paragraph 5.

### 5. Safety-Related Components

The inspector reviewed licensee procedures, observed work, and reviewed records for safety-related components to determine their compliance with regulatory requirements and licensee commitments as described below.

## a. Procedures Review (50071B)

The following quality control procedures were reviewed to verify proper implementation of requirements for receiving inspection, storage, installation, maintenance and preservation:

BNP-QCP-1.1 - RECEIVING INSPECTION  
 BNP-QCP-1.2 - STORAGE  
 BNP-QCP-1.3 - MAINTENANCE  
 BNP-QCP-1.4 - HANDLING NUCLEAR COMPONENTS  
 BNP-QCP-6.3 - MECHANICAL EQUIPMENT  
 BNP-QCP-6.9 - VALVES  
 BNP-QCP-6.10 - EXPOSED PIPING  
 BNP-QCP-6.19 - BOLTED FLANGE CONNECTIONS  
 BNP-QCP-6.16 - CLEANLINESS CONTROL DURING PIPING SYSTEM  
 INSTALLATION  
 BNP-QCP-10.36 - SEQUENCE CONTROL CHART (SCC)

## b. Work Observation (50073B)

The following valves were observed installed for proper protection:

<u>Valve No.</u>	<u>System</u>
1-NS-IFCV-089 B	Reactor Building Spray
1-NS-IFCV-105 A	Reactor Building Spray
1-NL-VCHA-078 A	Core Flood
1-NL-VCFA-084 A	Core Flood
2-NL-VCHA-078 A	Core Flood
2-NL-VCFA-084 A	Core Flood
1-ND-IFCV-179 A	Decay Heat Control
1-ND-IFCV-085 A	Decay Heat Control
1-NC-IFCV-010 A	Reactor Coolant
1-NC-IFSV-015 A	Reactor Coolant
2-NC-IFCV-010 A	Reactor Coolant
2-NC-IFCV-015 A	Reactor Coolant

Note: The first valve number indicates the Unit (1 or 2).

## c. Records Review (50075B)

(1) Receiving inspection records were reviewed for the following valves:

<u>Valve No.</u>	<u>System</u>
1-ND-IFCV-085 A	Decay Heat
1-ND-IFCV-179 B	Decay Heat

- (2) Manufacturer's manuals and related documentation were requested for review for the following components to determine the manufacturer's recommendations and instructions relative to storage, installation and preventive maintenance:

Component

DHR Pumps (for Units 1 and 2)  
 Decay Heat Coolers (for Units 1 and 2)  
 Reactor Coolant System valves 1-NC-IFCV-010 A and  
 1-NC-IFSV-015 A

The cooler and pump manuals requested were provided for review. Mechanical Engineering personnel were not able to provide the valve manuals when requested. The inspector questioned whether the licensee had established adequate controls on manufacturer's manuals and related information that might be needed for repair or maintenance of equipment. The licensee's procedures require such manufacturer's literature to be controlled documents but not QA records. The inspector indicated that he would examine the licensee's controls on this documentation in a subsequent inspection as inspector followup item 438, 439/84-16-01, Status of Manufacturer's Manuals and Related Documentation.

- (3) Maintenance inspection requirements, maintenance history records, and maintenance inspection records were requested for verification of compliance with procedure QCP-1.3 for the DHR pump and coolers and the following valves:

<u>Valve No.</u>	<u>System</u>
1-NS-IFCV-089 B	Reactor Building Spray
1-NS-IFCV-105 A	Reactor Building Spray
1-ND-IFCV-085 A	Decay Heat Removal
2-ND-IFCV-085 A	Decay Heat Removal
2-ND-IFCV-185 A	Decay Heat Removal
1-NC-IFCV-057 A	Reactor Coolant
1-NC-IFCV-010 A	Reactor Coolant
1-NC-IFSV-015 A	Reactor Coolant

In reviewing the above records, the inspector found that some valves (e.g., 1-NC-IFSV-15 A) had no maintenance requirements; and that in some instances, the maintenance requirements for identical valves and valve locations were different in one unit than in the other (e.g., 1- and 2-ND-IFCV-085 A). The inspector questioned licensee personnel on this, and was informed that it had previously been identified and addressed as a potential problem on Nonconforming Condition Report (NCR) 2279 (2/26/83). The inspector

reviewed this NCR and found that it had also questioned whether the manufacturer's recommendations had been implemented. The licensee's site response to the NCR, as it was understood by the NRC inspector, was that this was acceptable. The licensee's design engineering organization (ENDES) reviewed and apparently concurred with the disposition, except that they requested immediate implementation of certain preventive maintenance steps. The NRC inspector questioned whether the requirements had been implemented and was informed (by maintenance QC inspectors) that they had not been implemented completely. Licensee management informed the NRC inspector that relief from the ENDES requested maintenance requirements had been requested and had been responded to. It was not clear to the inspector whether or not the licensee had developed and implemented proper maintenance requirements and whether or not they had responded properly to NCR 2279. The inspector informed the licensee that he considered the following issues relative to this matter to be of concern as a potential violation of regulatory requirements:

- (a) It appeared that criteria for determination of preventive maintenance requirement for valves had not been established or implemented as evidenced by differences in requirements for identical valves installed in identical situations (as observed by the NRC inspector and indicated by NCR 2279).
- (b) The response to NCR 2279 did not clearly state whether the conditions of concern identified were acceptable.

Note: The inspector found the response to the NCR unclear at best.

- (c) Procedure QCP-1.3 requires that deviations from manufacturer's recommendations for preventive maintenance inspection be approved by the responsible engineering unit supervisor. It was not clear whether this had been done.
- (d) In responding to NCR 2279, the ENDES organization had asked for immediate implementation of certain preventive maintenance requirements. It appeared that the site had not immediately implemented the requirements. The delay may represent a lack of promptness in correcting a condition adverse to quality.

The above issues represent a potential violation of 10 CFR 50, Appendix B, Criterion XII requirements for prompt identification and correction of conditions adverse to quality. The apparent condition adverse to quality stems from the absence of criteria or implementation of criteria for preventive maintenance on valves.

Region II will review additional information relative to the above listed issues which will be provided by the licensee in a subsequent inspection. The information will be used to determine whether a violation exists and to evaluate its significance. Pending completion of that review this will be identified as unresolved item 438, 439/84-16-02, Implementation of Maintenance Requirements for Valves.

Within the areas examined, no violation or deviations were identified.