



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931**

September 7, 2001

Tennessee Valley Authority  
ATTN: Mr. J. A. Scalice  
Chief Nuclear Officer and  
Executive Vice President  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

**SUBJECT: BELLEFONTE NUCLEAR PLANT - NRC INSPECTION REPORT NOS.  
50-438/01-01 AND 50-439/01-01**

Dear Mr. Scalice:

On August 9, 2001, the NRC completed an inspection at your Bellefonte 1 & 2 reactor facilities. The results of the inspection were discussed with Mr. N. Kazanas and other members of your staff on August 9, 2001. The enclosed report presents the results of that inspection.

The purpose of the inspection was to determine whether activities authorized by the construction permits were conducted safely and in accordance with NRC requirements. Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

Based on the results of this inspection the inspector did not identify any findings of significance.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document

Room from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Paul E. Fredrickson, Chief  
Reactor Projects Branch 6  
Division of Reactor Projects

Docket Nos. 50-438, 50-439  
License Nos. CPPR-122, CPPR-123

Enclosure: NRC Inspection Report  
w/Attachment

cc w/encl:

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TVA

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PUBLIC DOCUMENT (circle one): YES NO

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-438 and 50-439  
License Nos: CPPR-122 and CPPR-123

Report No: 50-438/01-01 and 50-439/01-01

Applicant: Tennessee Valley Authority (TVA)

Facility: Bellefonte Nuclear Plant, Units 1 & 2

Location: Bellefonte Road  
Hollywood, AL 35752

Dates: August 8 - 9, 2001

Inspector: William C. Bearden, Reactor Inspector

Approved by: P. E. Fredrickson, Chief  
Reactor Projects Branch 6  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000438-01-01, IR 05000439-01-01, Inspection Report, on August 8 - 9, 2001, Tennessee Valley Authority, Bellefonte Nuclear Plant, Units 1 & 2.

This inspection was to review the layup and maintenance of plant systems and the review of various records. The report covers a two day period of an announced routine inspection by a regional reactor inspector. Based on the results of this inspection the inspector did not identify any findings of significance. Overall, the inspector concluded that the applicant's layup and preservation program had been effective.

## Report Details

### Summary of Plant Status

Although TVA submitted to the NRC a letter, dated March 23, 1993, stating their intent to resume construction activities, no construction related activities have been conducted. The majority of piping systems, except chiller systems and the fire protection system which are operational, remained in dry layup. Essentially all Unit 1 electrical distribution systems are complete and available for use. System engineers are assigned to systems and are responsible for maintaining the layup conditions and evaluating issues that arise.

Temporary cooling water is supplied to the Unit 1 emergency diesel generators (EDGs) to allow the use of these EDGs as needed to assist in meeting temporary electrical distribution system peak load demand periods.

### **1.0 Plant Walkdowns**

#### a. Inspection Scope (92050)

The inspector toured selected portions of the plant and reviewed the layup and preservation of safety-related equipment. The inspector toured portions of the auxiliary building, Unit 1 reactor building, and Unit 1 and Unit 2 diesel generator buildings. During these tours the inspector observed the proper operation of installed dehumidifiers and checked various safety-related components. Proper housekeeping practices and rodent control measures were verified to be in place. Safety-related components were checked by the inspector for external condition and protective covering, where necessary. All electrical motors and generators checked by the inspector were verified to be warm, with either internal heaters or heat tape energized. The following components were inspected:

#### Unit 1 and Common Components

Unit 1 Diesel Generators 1A and 1B  
Motor Driven Auxiliary Feed Water Pump 1A Motor 1CA-EMOT-001A  
Motor Driven Auxiliary Feed Water Pump 2B Motor 1CA-EMOT-002B  
Decay Heat Removal (DHR) Pump 1A Motor 1ND-EMOT-001A  
MU/HPI Pump 2A Motor 1NV-EMOT-002A  
MU/HPI Pump 3B Motor 1NV-EMOT-003B

#### Unit 2 Components

Unit 2 Diesel Generators 2A and 2B  
Component Cooling Pump 2B Motor 2KC-EMOT-002B  
Component Cooling Pump 3A Motor 2KC-EMOT-003A  
DHR Pump 2B Motor 2ND-EMOT-002B  
MU/HPI Pump 1A Motor 2NV-EMOT-001A  
Reactor Building Spray Pump Motor 2NS-EMOT-244

b. Observations and Findings

No findings of significance were identified.

**2.0 Preventive Maintenance Program**

a. Inspection Scope (92050)

The inspector reviewed the applicant's preventive maintenance (PM) Program to determine adequacy of the Program for maintaining systems in layup. Maintenance of the applicant's layup and preservation program relies on performance of many PMs. Examples of PMs performed under this program include motor heat verification, shaft rotation, component external inspections, system layup valve lineups and humidity checks. Specific PM requirements were specified in the Bellefonte Maintenance Code Book, Rev. 93. Site personnel had performed approximately 19,000 scheduled PM items on an annual basis. Additionally, the inspector reviewed the results of the applicant's program for verification of system dry layup by performance of drain valve checks and humidity checks. Verifications involved routinely opening drain valves at designated low points in each system to check for the presence of moisture. Humidity checks involved sampling system flow paths for relative humidity and were performed as part of the applicant's PM Program.

The inspector reviewed documentation associated with various PM requirements that were completed by site personnel during the period August 2000 - July 2001. This review included a review of applicable portions of the Bellefonte Maintenance Code Book which specified the PM requirements. The inspector then reviewed the records for completed PMs to verify that the PM requirements had been satisfied in accordance with the documented requirements and that actions had been initiated to address any discrepancies which were identified during performance of the PM. Additionally, the inspector reviewed documentation for selected inspection intervals of the PM activities to verify that the frequencies were performed on schedule. The following completed PM records were reviewed:

PM item number	PM Codes	Work performed
0FD-MTNK-019/SAMP	599	perform fuel oil sample
0KC-1FCV-286-B/1	427	remove MOV limit switch and check for grease separation
1CR01-RHRV-4.00	N/A	perform steam generator startup and recirculation system dry system verification
1KW-CHEM-789	N/A	perform chemical analysis
1NI-EPEN-028-B	177	verify adequate nitrogen pressure and recharge in needed

1RT-MDSL-002-B/1	51	sample oil, analyze for viscosity, total base number, contamination
1SM/SV01-RHRV-4.00	N/A	perform main steam system dry system verification
1VE-SAMP-005	N/A	obtain water sample and analyze for ammonia and dissolved oxygen
WHSINSP/03	N/A	perform warehouse storage inspection

b. Observations and Findings

No findings of significance were identified.

**3.0 Exit Meeting Summary**

The inspector presented the inspection results to Mr. N. Kazanas, General Manager, Nuclear Assurance, and other members of applicant management on August 9, 2001. The inspector asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified. The applicant acknowledged the findings presented.

## **PARTIAL LIST OF PERSONS CONTACTED**

### Applicant

R. Brown, Nuclear Licensing  
R. Davis, System Engineer  
N. Kazanas, General Manager, Nuclear Assurance  
G. Lyle, System Engineer  
M. Phillippe, Operations and Maintenance Manager  
S. Tanner, Nuclear Assurance

## **LIST OF INSPECTION PROCEDURES**

IP92050:      Review of Quality Assurance for Extended Construction Delay

## **ITEMS OPENED AND CLOSED**

### Opened

None

### Closed

None