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NUCLEAR REGULATORY COMMISSION  
REGION II  
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August 1, 2002

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.  
50-438/0201 AND 50-439/0201

Dear Mr. Scalice:

On July 11, 2002, the NRC completed an inspection at your Bellefonte 1 & 2 reactor facilities. The enclosed report documents the inspection findings which were discussed on July 11, 2002, with Mr. M. Phillippe and other members of your staff.

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 no findings of significance were identified.

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/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

***/RA/ (for Peter A. Taylor)***

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: (See page 2)

Enclosure: NRC Inspection Report

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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: 50-438/02-01 and 50-439/02-01

Applicant: Tennessee Valley Authority (TVA)

Facility: Bellefonte Nuclear Plant, Units 1 & 2

Location: Bellefonte Road  
Hollywood, AL 35752

Dates: July 10 - 11, 2002

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 05000438-02-01, IR 05000439-02-01, on July 10 -11, 2002, 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 plant records. This was an announced routine inspection conducted by a regional reactor inspector. Based on the results of this inspection no findings of significance were identified. The inspector concluded that overall the applicant's layup and preservation program had been effective.

## Report Details

### Summary of Plant Status

On March 23, 1993 TVA submitted a letter to the NRC stating their intent to resume construction activities, no construction related activities have been conducted. The majority of piping systems, remained in dry layup, The chiller systems and the fire protection system are operational. All Unit 1 electrical distribution systems are essentially 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 being supplied to Unit 1 emergency diesel generators (EDGs) to permit the use of these EDGs as needed to assist in meeting temporary electrical distribution system peak load demand.

### **1.0 Plant Walkdowns**

#### a. Inspection Scope (92050)

The inspector toured selected portions of the turbine building, auxiliary building, Unit 1 reactor building, and Unit 1 and Unit 2 diesel generator buildings and to evaluate the layup and preservation condition of safety-related equipment. 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  
Component cooling pump 1A motor 1KC-EMOT-001A  
Component cooling pump 3A motor 1KC-EMOT-003A  
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 1A motor 1NV-EMOT-001A  
MU/HPI pump 3B motor 1NV-EMOT-003B  
Reactor building spray pump motor 1NS-EMOT-001A

#### 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 2A motor 2NV-EMOT-002B

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 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 2001 - July 2002. This review included a review of applicable portions of the Bellefonte Maintenance Code Book which specified the PM requirements. The inspector also reviewed completed PM records to verify that the PM requirements had been satisfied and that actions had been initiated to address any discrepancies which were identified during performance of the PM. In addition, 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
0VK-SAMP-002	623	Circulate ventilation chill water and obtain water sample and analyze.
1CA-MPMP/EMOT-002-B	201, 625	Visual inspection, verify heat tape energized.
1CR01-RHRV-4.47	N/A	Perform steam generator recirculation system dry system verification.

1ED-ELVS-19/01	N/A	Visual inspection of agastat relays, clean if required.
1IX-II-022H/02	N/A	Check and record battery terminal voltage.
1KC01-RHRV-4.5.2.32	N/A	Perform component cooling system dry system verification.
1NI-EPEN-028-B	178	Verify adequate nitrogen pressure and recharge in needed.
1NM01-MPMP/EMOT-004	202, 625	Visual inspection, verify internal heater energized.
1RF-IFCV-D09-N/01	604	Maintenance functional testing of viking deluge valves.
1RG-EMOT-015-A/1	202	Verify internal heater energized.
1RT-MDSL-001-A/4	592	Sample diesel coolant, analyze for NALCO additive concentration.
2KE-MH-2B1-2B13	N/A	Inspect ERCW ductbanks for presence of water.
2IX-IM-016E-A/01	N/A	Inspect internal cabinet for damage and corrosion.
2VG-MFAN/EMOT-002-A/01	750	Rotate fan shaft 15 turns, visually inspect external surface for damage and corrosion.
Various	557	External visual exam of area of all containment tendon grease cans for cleanliness, paint coating condition, grease leakage.
Various	558	Inspect vertical tendons in tendon gallery for grease leakage.

The inspector also reviewed the applicant's program for monitoring the condition of the containment tendons. The inspector verified that grease leakage from tendon grease cans has been trended by the system engineer. Additionally, a visual inspections of dome grease cans performed in 1990 revealed that some grease was missing but tendons were verified to still be coated with grease. A tendon lift off test performed in 1991 showed normal loss of force after ten years since original stressing.

b. Observations and Findings

No findings of significance were identified.

### 3.0 Exit Meeting Summary

The inspector presented the inspection results to Mr. M. Phillippe, Operations and Maintenance Manager and other members of applicant management on July 11, 2002. 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 Staff

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

#### **ITEMS OPENED AND CLOSED**

##### Opened

None

##### Closed

None