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June 16, 2000

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: NRC INSPECTION REPORT NO. 50-438/00-01 AND 50-439/00-01

Dear Mr. Scalice:

On May 24, 2000, the NRC completed an inspection at your Bellefonte 1 & 2 reactor facilities. The results of the inspection were discussed with Mr. J. Blackburn and other members of your staff on May 24, 2000. 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.

Within the scope of this inspection, violations or deviations were not 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 placed in the NRC Public Document 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

cc w/encl:
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COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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Docket Nos:	50-438 and 50-439
License Nos:	CPPR-122 and CPPR-123
Report No:	50-438/00-01 and 50-439/00-01
Applicant:	Tennessee Valley Authority (TVA)
Facility:	Bellefonte Nuclear Plant, Units 1 & 2
Location:	Bellefonte Road Hollywood, AL 35752
Dates:	May 23-24, 2000
Inspector:	William C. Bearden, Reactor Inspector
Approved by:	P. E. Fredrickson, Chief Reactor Projects Branch 6 Division of Reactor Projects

SUMMARY OF FINDINGS

Bellefonte Nuclear Plant, Units 1 & 2
NRC Inspection Report 50-438/00-01, 50-439/00-01

This inspection was conducted 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. Overall, the inspector concluded that the applicant's layup and preservation program had been effective.

- Layup and preservation of equipment was acceptable.

- Site personnel had continued to make a dedicated effort toward supporting the Preventive Maintenance (PM) Program which has remained effective in maintaining systems in layup.

Report Details

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 and Unit 2 reactor buildings, 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
Auxiliary Waste Evaporator Pump Motor 0WL-EMOT-H67
ERCW Booster Pump 1B2 Motor 1KE-EMOT-012B

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
CRD Cooling Water Pump 2A Motor 2KD-EMOT-001B-A
Reactor Building Spray Pump Motor 2NS-EMOT-244

b. Observations and Findings

During the above tour the inspector noted that the permanently installed motor heater for the Unit 2 component cooling pump 3A motor 2KC-EMOT-003A was not energized. The inspector discussed this concern with the assigned system engineer and was subsequently informed that the terminal lug had corroded, resulting in no electrical

contact. The electrical lug was repaired and the problem was immediately resolved. The inspector determined through review of records that electrical power to the Unit 2 3A component cooling pump motor heater had previously been verified by applicant personnel on September 13, 1999, during the routine scheduled annual preventive maintenance (PM) for motor heat verification. Additionally, applicant personnel had more recently verified that the motor heater was energized during December 1999 as part of the routine system engineering walkdown of the Unit 2 component cooling system. The inspector determined that the lack of motor heating had been an isolated case. No equipment damage had resulted and a failure to perform required PMs had not occurred.

No deficiencies were identified during the inspector's tour of the above areas. The inspector concluded that the layup and preservation of equipment observed during the tour was acceptable.

2.0 Preventive Maintenance Program

a. Inspection Scope (92050)

The inspector reviewed the applicant's 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.

The inspector reviewed the applicant's program for performance of PMs and determined that the applicant had continued to place strong emphasis on performance of PM items. Fewer than .57% of scheduled PMs were late during the first half of Fiscal Year (FY) 2000. Site personnel had performed approximately 19,000 scheduled PM items on an annual basis. The site goal was no missed PMs and no more than 1% late PMs.

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. These checks were performed as part of the applicant’s PM Program. The inspector determined that the applicant had performed 137 drain valve checks during the first half of FY 2000. Moisture was found during only one drain valve check. This was consistent with previous trends with moisture found for five drain valve checks during FY 1995, one drain valve check during FY 1996, and no drain valve checks during FYs 1997, 1998, and 1999. Five paths with relative humidity greater than 40% were identified out of 952 paths checked during the first half of FY 2000. This was

consistent with previous trends with relative humidity above 40% for 53 paths checked during FY 1995, 19 paths checked during FY 1996, six paths checked during FY 1997, 15 paths checked during FY 1998, and 19 paths checked during FY 1999.

The inspector reviewed documentation associated with various PM requirements that were completed by site personnel during the period December 1999 - May 2000. 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. The following completed PM records were reviewed:

PM item number	PM Codes	Work performed
0RF-IXSA-040U-N	438	smoke detector test and general inspection
1KC-MPMP/EMOT-003A	202	verification that motor heaters are energized
1KE-MTWS-031-A	529	operate traveling screens 20 minutes
1KE-EMOT-012B/01	625	perform external visual inspection for damage, missing parts and corrosion
1KE-MH-1B1-1B10	N/A	inspect manholes for presence of water
1KW01-RHRV-4.00	N/A	perform raw cooling water system dry system verification
1SM/SV01-RHRV-4.00	N/A	perform auxiliary feedwater system dry system verification
1RT-MDSL-001-A/2	51	sample oil, analyze for viscosity, total base number, contamination
1R5-CPCW-001/1	558	inspect Unit 1 containment tendons for grease leakage from vertical tendons in tendon gallery, clean up leakage, document any leakage
1VA-MAHU-043-A/1	12	grease and rotate shaft
2RG-MRCR-004-B	176	verify nitrogen blanket at 5 to 10 psig if low charge to 10 psig

The inspector reviewed documentation for selected inspection intervals of the above PM

activities and determined that the frequencies were performed on schedule.

b. Observations and Findings

Site personnel continued to make a dedicated effort toward supporting the PM Program which has remained effective in maintaining systems in layup. This was evident from discussions with site personnel and from the fact that fewer than .57% of scheduled PMs were late during the first half of FY 2000.

3.0 Exit Meeting Summary

The inspectors presented the inspection results to members of applicant management at the conclusion of the inspection on May 24, 2000. The applicant acknowledged the findings presented.

PARTIAL LIST OF PERSONS CONTACTED

Applicant

J. Blackburn, Nuclear Assurance & Licensing Manager
R. Davis, System Engineer
G. Lyle, System Engineer
M. Phillippe, Operations and Maintenance Manager

LIST OF INSPECTION PROCEDURES

IP92050: Review of Quality Assurance for Extended Construction Delay