UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-8931

August 8, 2003

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. 50-438/03-01 AND 50-439/03-01

Dear Mr. Scalice:

On July 10, 2003, the NRC completed an inspection at your Bellefonte 1 & 2 reactor facilities. The enclosed report documents the inspection results which were discussed on July 10, 2003, with Mr. M. Phillippe and other members of your staff.

The purpose of the inspection was to determine whether equipment preservation activities authorized by the construction permits were conducted safely and in accordance with NRC requirements. Specific 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 or 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/

Stephen J. Cahill, 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 50-438/03-01 AND 50-439/03-01
w/Attachment - Supplemental Information

cc w/encls:
Karl W. Singer
Senior Vice President
Nuclear Operations
Tennessee Valley Authority
Electronic Mail Distribution

James E. Maddox, Vice President
Engineering and Technical Services
Tennessee Valley Authority
Electronic Mail Distribution

Robert J. Adney, General Manager
Nuclear Assurance
Tennessee Valley Authority
Electronic Mail Distribution

General Counsel
Tennessee Valley Authority
Electronic Mail Distribution

Mark J. Burzynski, Manager
Nuclear Licensing
Tennessee Valley Authority
Electronic Mail Distribution

Mark D. Phillippe, Manager
Licensing
Bellefonte Nuclear Plant
Tennessee Valley Authority
Electronic Mail Distribution

Chairman
Jackson County Commission
Courthouse
Scottsboro, AL 35768

State Health Officer
Alabama Dept. of Public Health
RSA Tower - Administration
Suite 1552
P. O. Box 303017
Montgomery, AL 36130-3017

Distribution w/encl: (See page 4)

Distribution w/encl:
L. Slack, RII EICS
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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:	50-438/03-01 and 50-439/03-01
Applicant:	Tennessee Valley Authority (TVA)
Facility:	Bellefonte Nuclear Plant, Units 1 & 2
Location:	Bellefonte Road Hollywood, AL 35752
Dates:	July 8 - 10, 2003
Inspector:	J. T. Reece, Resident Inspector (Watts Bar)
Approved by:	S. J. Cahill, Chief Reactor Projects Branch 6 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000438-03-01, IR 05000439-03-01, on July 8 -10, 2003, Tennessee Valley Authority, Bellefonte Nuclear Plant, Units 1 & 2.

This annual 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

Bellefonte Nuclear Plant (BLN) Units 1 & 2 remains in a deferred construction status as described in a July 14, 2000, Tennessee Valley Authority (TVA) letter to the NRC regarding confirmation of construction deferral status. The majority of piping systems remain in dry lay-up with the exception of fire protection related systems, chiller & associated support systems, and those systems required to support operation of the Unit 1 emergency diesel generators which are used as needed to assist in meeting temporary electrical distribution system peak load demand.

1.0 Quality Assurance

a. Inspection Scope (92050)

The inspector reviewed the applicability of an issue previously identified during a lay-up inspection for the TVA Watts Bar Unit 2 which is also in a deferred construction status. Specifically, a finding was documented as a Severity Level IV violation in Watts Bar NRC Integrated Inspection Report 50-390/03-02 and 50-391/03-02. The Watts Bar finding involved a reduction of plant lay-up activities without a corresponding change to the applicant's Nuclear Quality Assurance Plan (TVA-NQA-PLN89-A), or NQAP.

b. Observations and Findings

In reviewing the subsequent applicant corrective actions as delineated by Watts Bar problem evaluation report (PER) 02-016994-000, the inspector determined that the corrective actions developed for the Watts Bar issue would address any similar issues at BLN. No findings of significance were identified.

2.0 Plant Walkdowns

a. Inspection Scope (92050)

The inspector toured selected portions of the turbine building, auxiliary building, Unit 1 reactor building, Units 1 & 2 diesel generator buildings, and the intake pump structure to evaluate the lay-up and preservation condition of selected 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 other control measures were verified to be in place. Selected safety-related components were checked by the inspector for external condition and protective covering, where necessary. Electrical motors and generators checked by the inspector were verified to be warm, with either internal heaters or heat tape energized. The following specific components were inspected:

- Unit 1 diesel generators 1A and 1B
- Units 1 & 2 nuclear service water pumps and motors
- Component cooling 2A pump and motor
- Motor driven auxiliary feed water 1B pump and motor
- Decay heat removal 1B pump and motor
- High pressure injection 1B pump and motor
- Reactor building spray 2B pump and motor
- Unit 2 diesel generators 2A and 2B
- Unit 1 reactor vessel head
- Unit 1 hydrogen recirculation fan A
- Unit 1 vital battery rooms

b. Observations and Findings

The inspector noted that one battery cell, #47, was showing signs of impending failure (cell structure was buckled) on vital battery 1EU-EB-50-D. The applicant initiated work request 005577 to have the cell jumpered out and to perform general cleaning of the vital battery rooms due to the accumulation of acid corrosion.

No findings of significance were identified.

3.0 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 lay-up. 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 lay-up valve lineups and humidity checks. Specific PM requirements were specified in the BLN Maintenance Code Book, Rev. 93. Site personnel have performed approximately 12,000 to 15,000 scheduled PMs on an annual basis depending on the schedule requirements. The inspector reviewed the results of the applicant's program for verification of system dry lay-up 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.

The inspector reviewed documentation associated with various PM requirements that were completed by site personnel during the period August 2002 - June 2003. This review included a review of applicable portions of the BLN 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. Performance of the following PMs were observed:

- 0603-349, 1RT-EMOT-004-B, DG 1B aux lube oil pump motor
- 0703-847, 1NI-EPEN-071, Instrumentation penetration (pressure checks)
- 0703-622, 1NI-EPEN-073-A, Instrumentation penetration (pressure checks)
- 0703-384, 1NI-EPEN-075-A, Instrumentation penetration (pressure checks)

The following PM records were reviewed:

Component	PM Codes	Work Performed
1NO-MFAN-002-A, Hydrogen recirc fan	750	Rotate fan/motor shaft at least 15 turns with as left 90 to 180 degrees from as found position. Perform visual inspection of external/internal surfaces and clean as necessary.
1RG-EMOT-016-A/1, DG 1A start air compressor after cooler motor	202	Ensure internal is energized.
1EU-EBC-52-F/01, 125V DC vital batt charger	N/A	Clean if required.
0RF-MDSL-005/07, diesel fire pump	N/A	Check engine oil & record if any added. Start & run for 30 min per procedure.
2KC-MPMP/EMOT-001-A, component cooling pump 2A2-A	Pump: 625, 115, 156 Motor: 115, 155, 625, 202	Visually check external surfaces for problems & clean as necessary. Check lubricant levels & fill as required. Rotate shafts 12 revolutions & leave 90 degrees from starting position. Ensure motor heater is energized.
1CM-MCON-015/1, TB main condenser tube side	611	Measure and record temp and humidity of supply and return air. If >40%, notify ENG
1NC-MPHG-0067, hydraulic cyl. snubber on SG 1A	581	Check oil level on permanent reservoir & inspect for leaks. Add oil as required.

0NC-MRCS-001, Units 1 & 2 Reactor coolant system (head, SGs, refueling canal, plenum, core barrel, incore tank, core support assembly, vessel)	284	Check for standing water, carbon steel contacting stainless steel, debris. Obtain recorded temp/humidity data. Inspect dehumidifiers for proper operation. Ensure plastic cover is intact and boundary to lower reactor vessel head is intact.

b. Observations and Findings

No findings of significance were identified.

4.0 Exit Meeting Summary

The inspector presented the inspection results to Mr. M. Phillippe, Operations and Maintenance Manager, and other members of staff on July 9, 2003. The inspector asked the applicant whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified. The applicant acknowledged the findings presented.

SUPPLEMENTAL INFORMATION
PARTIAL LIST OF PERSONS CONTACTED

Applicant Staff

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

ITEMS OPENED AND CLOSED

Opened

None

Closed

None

Attachment

LIST OF DOCUMENTS REVIEWED

- Watts Bar PER 02-016994-000, NRC identified Severity Level IV violation regarding TVA-NQA-PLN89-A not commensurate with applicant's lay-up plan for Unit 2.
- TVA Nuclear Quality Assurance Plan, TVA-NQA-PLN89-A
- Generic Letter 87-15, Policy Statement on Deferred Plants
- TVA Memorandum dated July 1, 1988, transmitting Draft Quality Assurance Plan for Deferred Plants/Units
- TVA Letter dated July 14, 2000, BLN Nuclear Plant Units 1 & 2 and Watts Bar Nuclear Plant Unit 2 - Confirmation of Construction Deferral Status
- TVA Letter dated December 13, 1999, BLN Nuclear Plant - PM reductions for manpower leveling
- BLN Engineering Requirements Specification Manual
- BLN Maintenance Code Book (Rev. 93, 1/13/99)
- Listings of 730 codes (designating items for refurbishment/replacement required prior to startup) and 'Z' codes (PMs no longer performed)
- Babcock & Wilcox Construction Company Nuclear Standard - Index of field specifications for NSS components (Rev. 2): various selections reviewed for comparison to Maintenance Code Book
- BLN Lay-up and Preservation Review, July, 2001
- Site Specific Procedure (SSP) - 9.90, Preventative Maintenance for Long Term Lay-up, Rev. 2
- PER BLP030005, corrective actions for PERs BLP030001 & 030003 not documented with required 20 working days
- PER BLP030006, incorrect revision number for pages 15 & 16 in Maintenance Code Book
- PER BLP030007, classification of software used to implement PM program by SSP-9.90 was indeterminate (software is not QA).