



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303
AUG 27 1979

Report Nos. 50-280/79-46 and 50-281/79-65

Licensee: Virginia Electric and Power Company
Richmond, Virginia 23261

Facility Name: Surry Units 1 and 2

Docket Nos. 50-280 and 50-281

License Nos. DPR-32 and DPR-37

Inspection at Surry Site near Surry, Virginia

Inspector: *P. J. Kellogg for* 8/22/79
D. J. Burke, Resident Inspector Date Signed

Approved by: *P. J. Kellogg* 8/21/79
P. J. Kellogg, Section Chief, RONS Branch Date Signed

SUMMARY

Inspection on July 9 - August 10, 1979

Areas Inspected

This routine inspection by the resident inspector involved 98 inspector-hours onsite in the areas of plant operations and maintenance, including the Unit 2 steam generator replacement outage work, and followup on LER's and previously identified items.

Results

Of the four areas inspected, no apparent items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Licensee Employees

Virginia Electric and Power Company (VEPCO)

- *W. L. Stewart, Station Manager
- *J. L. Wilson, Superintendent, Operations
- *T. A. Peebles, Superintendent, Technical Services
- *R. F. Saunders, Superintendent, Maintenance
 - R. M. Smith, Supervisor, Health Physics
 - R. L. Baldwin, Supervisor, Administrative Services
 - G. Kane, Operating Supervisor
- *F. L. Rentz, Resident QC Engineer
- *D. A. Christian, Engineering Supervisor

Other licensee employees contacted during this inspection included control room operators, shift supervisor, QC, engineering, HP, plant maintenance, security, engineering, and administrative personnel.

*Attended exit interview.

2. Management Interviews

The scope and findings were summarized on a weekly basis with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection

5. Unit 2 Steam Generator Replacement Activities

The inspector reviewed certain U-2 SG replacement and associated activities to verify that the activities were performed in accordance with the Steam Generator Repair Program (SGRP) and applicable procedures.

The review included the following activities:

- a. Inspection tours of the Unit 2 containment for cleanliness and radiation control; appropriate work and radiation controls were being implemented.
- b. Followup on the thunderous arcing of the 500KV line insulator over the backfed 2 B main transformer on July 9, 1979. The licensee performed

testing to verify no transformer damage occurred and repaired the standoff insulator.

- c. Review of certain contractor and plant personnel records such as radiation exposure histories and time-cards to verify that exposures and worktimes were appropriately controlled.

Within the areas inspected, no items of noncompliance were identified.

6. Review of Reportable Occurrences

The inspector reviewed the Reportable Occurrence (RO) reports listed below to ascertain that NRC reporting requirements were being met and to determine the appropriateness of corrective action taken and planned. Certain Licensee Event Reports (LER) were reviewed in greater detail to verify corrective action and determine compliance with the Technical Specifications and other regulatory requirements. The review included examination of log books, internal correspondence and records, review of SNSOC meeting minutes, and discussions with various staff members.

Within the areas inspected, no items of noncompliance or deviations were identified.

- a. LER 280/79-07 concerned an inoperable snubber due to low fluid level in the reservoir which had a fitting leak. The snubber was rebuilt and retested. All snubbers will be inspected for operability prior to unit startup. This LER is closed.
- b. LER 280/79-11 addressed the temporary loss of power to the plant ventilation radiation monitors due to a loose connection on the power supply lead to the RM cabinet. The ventilation sampling system, which remained operable, maintained accountability during the event. No significant releases were noted. The licensee stated that the cause codes would be corrected on a supplemental LER.
- c. LER 280/79-12 addressed the special functional test of 74 snubbers performed during shutdown as a result of Unit 2 snubber testing and failure analysis. 21 of the 74 snubbers tested did not meet the acceptance criteria. The licensee is reviewing the data to determine the cause of the bleed and lockup rate drift. The remainder of the testable snubbers were rebuilt and/or functionally tested in mid 1978, and a random sample of 10 of these snubbers was functionally tested on August 1, 1979 with no failures occurring. The LER remains open pending licensee review of the snubber setpoint drift and stress evaluation of the piping; the the inoperable snubbers have been repaired, retested, and reinstalled in Unit 1.
- d. LER 280/79-13 concerned the inadvertent release of some 100 gallons of water from the boron recovery test tank 2B to the discharge canal

without prior sampling. The event was caused by an improper valve lineup for recirculation in preparation for sampling. The personnel involved have been reinstructed and discharge procedure OP 10.4 revised to ensure appropriate valve lineup. Subsequent sampling indicated that the radioactive discharge was 0.6% of the limits specified in 10 CFR 20. This LER is closed.

- e. LER 280/79-14 addressed the high alarm setpoint drift on the liquid waste disposal radiation monitor (RM-LW-108). Although the Technical Specification limit of 1.5×10^{-3} $\mu\text{Ci/cc}$ could have been temporarily exceeded, licensee analysis determined that the 10 CFR 20 limits were not exceeded. The LER is closed.
- f. LER 280/79-15 concerned liquid waste releases which contained isotope activity summations that exceeded the TS 3.7.E limit of 1.5×10^{-3} $\mu\text{Ci/cc}$; 10 CFR 20 limits were not exceeded. HP procedure 3.5.1 was revised to include additional administrative controls over liquid releases activities, since the radiation monitor can only be calibrated to one isotope. This LER is closed.
- g. LER 280/79-17 addressed the potential for insufficient oil pressure to the emergency diesel generator turbocharger thrust bearing under certain restart conditions (eg - several restarts after full load operation). The licensee determined that the restrictive conditions have not occurred at Surry. The inspector verified that the D/G test procedures were revised to ensure that the above conditions would not occur during diesel startup or testing. The manufacturer is evaluating the development of an improved lubricating oil system and will notify the licensee of progress. This LER is closed.
- h. LER 280/79-19 concerned the failure of motor operated containment purge isolation valve 100D during shutdown. The redundant isolation valve was operable. The failed bearing was replaced and the valve was satisfactorily tested after maintenance. This LER is closed.
- i. LER 281/79-10 concerned the failure of 19 out of 30 snubbers tested to meet the acceptance criteria for bleed and lockup in PT 39.2 (Snubber Functional Test). The licensee is rebuilding or functionally testing every Unit 2 snubber. This LER remains open pending completion of the program and evaluation. (See LER 280/79-12 above).

7. Unit 1 Operations and Maintenance

Surry Unit 1 remains shutdown following the issuance of the NRC Order to Show Cause concerning the piping stress analyses deficiencies; modifications to the piping support systems are in progress. The inspector observed certain support installation work on the RHR system inside Unit 1 containment. The anchor bolt and support installations were being performed in accordance with Design Change 79-S32 procedures, and appropriate HP monitoring was established. However, the inspector did observe one inverted snubber, RH-HSS-11, in the work area on which the locknut was loose. The license

stated that the snubber will be replaced or purged and functionally tested; a 100% visual snubber inspection will be performed prior to startup. The inspector also toured the control room and certain Unit 1 plant areas to verify that the shutdown operations were in accordance with the Technical Specifications and facility procedures. Plant logs and records were also reviewed. Within the areas inspected, no items of noncompliance were identified. Specific areas of inspection included:

- a. Followup on the boric acid filter radiation levels (open item 280/79-31-01). Filter changeout reduced the radiation levels in the immediate area by some 50%, and the licensee is continuing the radiation surveys and evaluation. Some radiation exposures (300 mr/individual max.) occurred during the filter changeout. Some deterioration of the Cuno filter material was also noted and is being evaluated. This item remains open pending the results of the evaluations.
- b. Review of recent periodic tests (PT 26.1 and 26.2) on the radiation monitors (RM) as part of the followup of the LER's discussed in paragraph 6 above. The inspector noted that certain RMs such as RM-LW-108 (liquid waste) and RM-CC-105 and 106 (component cooling water) did not respond to the daily source check because of the relatively high count rate on the channel. The licensee stated that shielding, decontamination, and relocation of RM detector RM-LW-108 is planned to reduce the background radiation levels, and stated that Design Change 77-29 (Relocation of RM-LW-108) will be reviewed prior to implementation. The licensee verifies instrument radiation level movement and operability if the instruments do not respond to the daily source response check. The licensee is also reviewing the monthly RM periodic test (PT 26.2) to determine if a more integrated test could be performed on the instrumentation. This item remains open pending licensee review and design change implementation (280/79-46-01).
- c. Review of certain maintenance and periodic test (PT) procedures to verify that the systems tested are returned to operable status at the completion of the tests. The inspector noted that step 5.1 of PT-18.1, "Low Head SI Test", instructs the operator to close MOV-1862 A and B, which isolate the LHSI suction lines from the RWST, and then reopen the valves to verify operability. The licensee is reviewing PT-18.1 to assure that the parallel valves are cycled individually. This item is open pending PT-18.1 review and/or revision or implementation of the revised PT program under ASME Section XI (280/79-46-02).
- d. Review, during conduct of the sessions, of a simulator and lecture retraining session for plant personnel.
- e. Verification that facility control rooms were staffed in accordance with Technical Specification 6.1.
- f. Observation of the high potential testing on the buried reserve station service cables (ST-63). The licensee is investigating the apparent degradation of the Unit 2 cabling identified during testing.

8. Plant Physical Protection

The inspector verified the following by observation:

- a. Gates and doors in protected and vital area barriers were closed and locked when not attended.
- b. Isolation zones described in the physical security plans were not compromised or obstructed.
- c. Personnel were properly identified, searched, authorized, badged and escorted as necessary for plant access control.