



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

Report Nos. 50-280/79-62 and 50-281/79-82

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: S.A. Elrod for 30 Nov 79
D. J. Burke Date Signed

Approved by: Thomas J. McFleming 11/30/79
P. J. Kellogg, Section Chief, RONS Branch Date Signed

Inspection on October 1-31, 1979

Areas Inspected

This routine, announced inspection involved 90 inspector-hours onsite in the areas of plant operations and operating records, plant maintenance, and plant security.

Results

Of the 3 areas inspected, no apparent items of noncompliance or deviations were identified in 1 area; 2 apparent items of noncompliance were found in 1 area [Infraction-failure to follow alarm procedures - paragraph 5.c.; Infraction-cool down rate exceeded TS limit - paragraph 5.f.; one noncompliance and one deviation were found in the remaining area; Infraction alarm set points on radiation monitors CC-105 and 106 not in accordance with TS 3.7 - paragraph 5.h.; Deviation-two portable fire extinguishers not inspected monthly - paragraph 5.c.].

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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
- M. R. Kansler, Acting Engineering Supervisor

Other licensee employees contacted during this inspection included control room operators, shift supervisors, 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. The items of noncompliance and the deviation were discussed and the licensee stated that corrective action was in progress on the items.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Unit 1 Operations and Maintenance

Unit 1 returned to operation on October 24, 1979. The inspector witnessed the plant startup and criticality which occurred at 7:50 pm; the ECP was accurate and the operating procedures for startup and power operations were followed. Prior to startup, the inspector verified that the licensee had

taken specific actions which were required by IE Bulletins 79-06 and 79-06A, and its revisions and supplements. Specific areas reviewed included the following:

- a. Emergency Procedure (EP) review. The inspector verified that the TMI "lessons learned" actions and recommendations have been incorporated into the EP's, and that the procedures direct tripping of the operating reactor coolant pumps upon initiation of SI caused by low reactor coolant system pressure. An additional licensed operator has been stationed in the control room to accomplish this action and followup actions required during such an occurrence. The inspector noted that EP2, 3, and 4, section 2 (Automatic Actions) still made reference to SI from low pressurizer pressure in coincidence with low pressurizer level, although the SI logic has been changed to initiate on low pressurizer pressure coincidence alone (2/3); the EP's were appropriately revised.

- b. Valve, Breaker, and Switch Alignment Review. The inspector reviewed valve, breaker, and switch alignment procedures (checklists) for engineered safeguards and service water systems against the current P&ID's and single-line diagrams (e.g., FM prints) to verify the adequacy of alignment procedures. The valves, breakers, and switches were also inspected to verify proper positioning and alignment. The safety-related valves, breakers, and switches were appropriately aligned. The inspector identified one safety-related valve (MOV-1885D, LHSI recirc line) which was not on the Safety Injection lines OP-7.1 valve checklist, although the valve was properly positioned. In addition, several valves were not appropriately tagged with identifying numbers, and several small valves in the service water system were not in the checklist position, although system operability was not affected. These are further examples of the item of noncompliance (280/79-60-01) identified in IE Inspection Report 280/79-60. The licensee stated that the Unit 1 checklists will be performed again to identify valve positions, maintenance, or valve identification tagging as required (280/79-62-05). A program for valve tagging and identification has been in effect for several months.

The inspector also verified valve alignments according to ES valve alignment checklist CL-53; while in the Unit 1 safeguards building and valve pit, the inspector noted that several ES valves (eg-SI-48, 1860, 1852B, CS-101B, 156A) did not have adequate local indication to determine valve position. The licensee stroked these valves and the inspector verified proper valve positions; the licensee is repairing or replacing the valve local indicators.

- c. Unit 1 Safeguards Building Tour. While inspecting valves in the Unit 1 SG building, the inspector noted excessive groundwater accumulation in the valve pit area. Although operability of the valves in the pit area was not affected, the water levels were alarmed in the control

room and the annunciator alarm procedure 1B-26 (D-2) was not followed to remove the water. This failure to follow procedures is in noncompliance with TS 6.4.D, and is identified as an infraction (280/79-62-01). In addition, the inspector noted that one of the two portable fire extinguishers in the SG building had not been inspected since January 1979. A similar situation was found in the Unit 2 SG area. This item was identified as a deviation from the commitments in the Surry Fire Protection Systems Review. (280/79-62-04 and 281/79-82-01).

- d. Unit 1 Containment Tour. The inspector toured the Unit 1 containment prior to reactor startup to verify system operability, housekeeping, and cleanliness. Within the areas inspected, no items of noncompliance were identified. The inspector also verified that piping support modifications to the three RCS RTD loops had been completed and that the SI line supports had been modified to eliminate the pipe overstress conditions. In addition, the inspector noted some boric acid crystals on the valve body and bolts of SI-1865A, the A accumulator discharge isolation valve. The licensee is evaluating the effects of this leakage and the possible effects of corrosion in accordance with TS 4.3; the valve leakage was repaired. The inspector also noted that some water had accumulated in the recirculation spray head exchangers, although no water was detected in the RS shell side of the heat exchanger; the licensee initiated actions to remove the service water from the heat exchangers. The containment recirculation sump screens were verified in place and no trash was observed in the area.
- e. General Area Tour. While inspecting valve alignments from the RWST, the inspector observed the replacement of the heat tracing on the RWST discharge lines to the ES systems. With the pipe insulation removed, the inspector noted an area of pitting on one of the discharge lines; the licensee ground the pitted area out and performed non-destructive testing to verify elimination of the defect and adequate pipe wall thickness. The electrical tape used to attach the heat tracing to the piping was chemically analyzed and determined to contain less than .1 ppm chlorides and sulfates. The licensee has also taken action to lock accessible safety related manual valves such as CS-1 and 4 to secure proper valve alignments.
- f. Records Review. The inspector reviewed certain Unit 1 and 2 operating records and completed procedures for the past year. While reviewing the Unit 1 wide range hot leg temperature strip chart recorder (TR-1-413) data, for the October 4, 1978 cool down, the inspector determined that the Technical Specification 3.1.B.1 RCS cool down rate limit of 50°F per hour was exceeded from approximately 3:30 pm to 4:30 pm and from 7:00 pm to 8:00 pm. This is an infraction (280/79-62-02). The completed RCS pressure-temperature curves for cool downs were attached to OP 3.3 as required by OP 3.2 "Unit Shutdown Operation", and demonstrated that the RCS pressurization limits (TS Fig. 3.1-1) were not exceeded. The RCS temperature trend recorder charts were not attached to OP 3.3 or OP 3.4, but were located in the records storage vault.

- g. Testing Review. The inspector observed testing of the Unit 1 containment isolation valves TV-DA-100A and B to verify that the valves close when SI is initiated and remain closed until both SI and the valves themselves are reset. Testing was performed in accordance with Design Change 79-S22 and was acceptable. The inspector also observed additional ES pump and valve testing to verify that the tests were performed in accordance with the appropriate Periodic Test (PT) procedures and were in accordance with the TS. Within the areas inspected, no items of noncompliance were identified.
- h. Plant Maintenance. The inspector reviewed certain plant systems maintenance to verify that the maintenance activities were accomplished in accordance with approved and adequate procedures and the Technical Specifications. Maintenance activities reviewed included:
 - (1) Replacement of motor operated valve SI-1842 due to valve seat leakage; the Westinghouse valve, which replaced the Darling valve, was determined to be acceptable by Engineering Study 79-35.
 - (2) Inspection of the Radiation Monitor (RM) panel readouts in the control room, on October 29, 1979, following the seven month facility outage. Due to the decrease in the component cooling water activity, the background reading of the component cooling water radiation monitors RM-CC-105 and CC-106 had also decreased; however, the alarm setpoints of the monitors had not been reduced to alarm at twice background or less. This is in noncompliance with Technical Specification 3.7, Table 3.7-5, item 2 and is an infraction (280/79-62-03).

6. 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.

The inspector noted that the main site entrance security building chemical detector was not operating on October 24, 1979; however, since unbadged personnel entering the site are searched, no compensatory actions were required. The inspector had no further questions at this time.