



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

MAY - 9 1980

Report Nos. 50-280/80-11 and 50-281/80-12

Licensee: Virginia Electric and Power Company
Richmond, Virginia 23261

Facility Name: Surry Power Station

Docket Nos. 50-280 and 50-281

License Nos. DPR-32 and DPR-37

Inspection at Surry site near Williamsburg, Virginia

Inspector: S. C. Ewald

S. C. Ewald

May 7, 1980
Date Signed

Approved by: A. F. Gibson

A. F. Gibson, Section Chief, RSS Section,
FF&MS Branch

May 9, 1980
Date Signed

SUMMARY

Inspection on April 15-17, 1980

Areas Inspected

This routine, unannounced inspection involved 28 inspector-hours on site in the areas of steam generator shipment activities and previously identified items.

Results

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

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DETAILS

1. Persons Contacted

Licensee Employees

- *J. L. Wilson, Station Manager
- *T. A. Peebles, Superintendent Technical Services
- *R. M. Smith, Health Physics Supervisor
- C. Foltz, Assistant Health Physics Supervisor
- *M. R. Beckham, Assistant Health Physics Supervisor
- P. P. Nottingham, Assistant Health Physics Supervisor
- *S. P. Sarver, System Health Physicist

NRC Resident Inspector

- *D. J. Burke

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 25, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

- a. (Closed) Noncompliance (280/79-9-1; 281/79-10-1) Failure to lock high radiation areas. The inspector reviewed the licensee's response of May 15, 1979 and discussed high radiation area locks and key control with health physics representatives. The inspector also discussed disciplinary actions currently used when high radiation area gates are found unlocked with the Health Physics Supervisor. The inspector had no further questions in this area.
- b. (Closed) Noncompliance (280/79-9-2; 280/79-10-2) Failure to post and barricade high radiation areas. The inspector reviewed the licensee's response of May 15, 1979 to this item and had no questions. The inspector toured the auxiliary building on April 16 and found no unposted high radiation areas.
- c. (Closed) Noncompliance (280/79-9-3; 281/79-10-3) Failure to label radioactive material containers. The inspector reviewed the licensee's responses of May 29, 1979 to this item and had no questions. The inspector verified Assistant Health Physics Supervisors are touring the restricted controlled area daily to assure compliance. The inspector noted these tours, in addition to assuring proper labeling of containers, will also help assure proper posting and control of

radiation and high radiation areas, assure adherence to procedural requirements, and also help identify possible problem areas.

- d. (Closed) Noncompliance (281/79-10-5) Use of lead shielding on seismic piping. The inspector reviewed the licensee's response of May 15, 1979 and had no questions. This response stated seismic analysis would be required prior to using shielding on any seismic systems. Since the initial response, a generic analysis, performed by a contractor, identifying quantity of lead vs. pipe diameter and unsupported span has been generated. The use of this data and required reviews have been incorporated into a Health Physics Procedure HP-3.13, "Guidelines for the Implementation of an ALARA Program at Surry Power Station". The inspector reviewed the January 16, 1980 revision of HP-3.13 and had no further questions.
- e. (Closed) Noncompliance (280/79-9-6) Failure to post containment as an airborne radioactivity area. The inspector verified Unit 1 containment is posted as an airborne radioactivity area on April 17, 1980. The inspector had no further questions.
- f. (Closed) Noncompliance (280/79-18-03; 281/79-26-03) Failure to post a radiation area. The inspector reviewed the licensee's response of May 31, 1979, and conducted an independent dose rate surveys on April 15, 16, and 17. No unposted radiation areas were found. The inspector had no further questions.
- g. (Closed) Noncompliance (281/79-29-01) Worker overexposure. The licensee's corrective actions are discussed in paragraph 6.
- h. (Closed) Noncompliance (281/79-29-02) Inadequate survey. The licensee's corrective actions are discussed in paragraph 6.
- i. (Closed) Noncompliance (281/79-29-03) Failure to provide a radiation survey instrument to worker in a high radiation area. The licensee's corrective actions are discussed further in paragraph 6.
- j. (Closed) Noncompliance (281/79-29-04) Failure to make 24 hour written report. The inspector reviewed the licensee's corrective actions discussed in their response of September 4, 1979 and had no questions.
- k. (Closed) Noncompliance (281/79-29-05) Failure to follow procedures. The licensee's corrective actions are discussed in paragraph 6.
- l. (Closed) Noncompliance (280/79-32-01; 281/79-50-01) Failure to provide a radiation survey instrument to workers in a high radiation area. licensee's corrective actions are discussed in paragraph 6.
- m. (Closed) Noncompliance (280/79-32-02; 281/79-50-02) Incorrect logging of RWP number with respirator issue records. The inspector reviewed

the licensee's response of July 26, 1979. The inspector verified procedural changes, incorporating use of a respirator issue ticket, have been implemented. The inspector had no further questions.

- n. (Closed) Noncompliance (280/79-64-01; 281/79-84-01) Inadequate High Radiation area locks. The inspector examined seventeen newly installed high radiation gates and verified the lock mechanisms were not readily opened without a key. The inspector had no further questions.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Other Followup Items

- a. (Closed) High Radiation Levels during Fuel Transfer (280;281/78-27-03) The inspector reviewed surveys conducted during fuel transfers. Localized high levels of radiation were identified streaming through gaps between shield blocks and containment walls. The licensee is investigating the possibility of additional shielding and, in the meantime, posting health physics technicians to provide direct access control to the identified areas.
- b. (Closed) Saturation of G.M. tube process monitors (280;281/78-27-04). The problem of G.M. tube saturation during a high level release has been corrected by the installation of high range effluent monitors. Installation of the monitors was requested based on the review of events at Three Mile Island.
- c. (Closed) Pressure in SCBA cylinders ready for use (280/79-9-08; 281/79-10-6). The inspector examined all cylinders ready for use on April 17 and noted no cylinders with pressure below the 1800 psi procedural limit. An Assistant Health Physics Supervisor stated examination of cylinder pressures is performed normally on a daily basis. The inspector had no further questions.

6. Health Physics Control Desk

In response to several items of noncompliance and other concerns relating to use of radiation work permits (see paragraph 3), the licensee implemented use of a control point desk separate from the normal dosimeter issue/control point. This desk is manned by a health physics technician who is to assure that all personnel entering the restricted controlled area are familiar with RWP requirements, have proper dosimetry, survey instruments have been issued to workers entering high radiation area, and assure control requirements for access through high radiation area gates are met. The requirements and purpose of this "RWP-Service Desk" are discussed in section 2.1 of the Health Physics Manual. The inspector reviewed this procedure addressing the RWP system, and had no further questions concerning the RWP service desk.

7. Steam Generator Shipment

- a. The inspector reviewed activities concerning preparation of one steam generator, from the Unit 2 replacement project, for shipment to Battelle Pacific Northwest Laboratory. The inspector reviewed procedures and analyses in Engineering Task Assignment (ETA) No. 70001. The inspector reviewed surveys of radiation levels associated with the "used" generator. Radiation levels of several hundred mrem/hr was measured on contact with the sides and a maximum of 800 mrem/hr was measured on contact with the steel plate covering the upper end of the generator. The inspector verified compliance with RWP and plant procedural requirements concerning dosimetry posting, etc. No items of noncompliance or concerns were identified.

- b. The inspector toured the barge that was used to ship the steam generator and noted installed shielding of 10" thick concrete walls. In addition, a second 2" steel plate was ready to be welded to the upper end of the generator with I-beam cross-members to provide additional shielding and structural rigidity. It was also planned to install a chain link fence around the generator to limit access to the immediate area near the generator on the barge. The inspector had no questions concerning the shipment and was informed that the barge left the site on April 20, 1980.