



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

Report No. 50-338/79-41

Licensee: Virginia Electric and Power Company
 P. O. Box 26666
 Richmond, Virginia 23261

Facility Name: North Anna

License No. NPF-4

Inspection at North Anna Site near Mineral, Virginia

Inspectors:	<u><i>E. H. Webster</i></u>	<u>12/7/79</u>
	E. H. Webster	Date Signed
	<u><i>A. H. Johnson</i></u>	<u>12/7/79</u>
	A. H. Johnson	Date Signed
Approved by:	<u><i>P. J. Kellogg</i></u>	<u>12/12/79</u>
	P. J. Kellogg, Acting Section Chief RONS Branch	Date Signed

SUMMARY

Inspection on October 22-26, 1979

Areas Inspected

This routine unannounced inspection involved 56 inspector-hours onsite in the areas of refueling activities, Licensee Event Reports, and followup on previously identified items.

Results

Of the three areas inspected, no apparent items of noncompliance or deviations were identified in two areas; one apparent item of noncompliance was found in one area: (Infraction: failure to implement procedures to conduct required surveillance on two valves - paragraph 6).

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DETAILS

1. Persons Contacted

Licensee Employees

- *W. R. Cartwright, Station Manager
- *E. R. Smith, Jr., Superintendent - Technical Services
- *J. W. Ogren, Supervisor - Administrative Services
- *S. L. Harvey, Operating Supervisor
- L. O. Goodrich, Supervisor - Mechanical
- *W. R. Maidson, NRC Coordinator
- T. J. Wilson, III, Technical Engineer
- G. A. Kann, Technical Engineer
- R. Hayes, Assistant Shift Supervisor
- C. D. Bradley, Sr. H. P. Technician
- *C. R. Swope, Sr. QC Inspector

Other licensee employees contacted included 2 technicians, 3 operators, and 3 office personnel.

NRC Resident Inspector

M. S. Kidd

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 26, 1979, with those persons indicated in Paragraph 1 above. The apparent item of noncompliance was discussed with and accepted by licensee management.

3. Licensee Action on Previous inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. A new unresolved item identified during this inspection is discussed in Paragraph 5.

5. Refueling Activities

From review of fuel handling procedures OP-4.1, "Controlling Procedures for Refueling" and FP-VRA-R1 "Modified Refueling Procedure for Cycle I-II North Anna Unit 1", the inspector concluded that the requirements of Technical Specifications 3/4.9 were met at the beginning of core alterations and

beginning of fuel movement. By review of completed sections of OP-4.1 and FP-VRA-R1, the inspector concluded that the surveillances that were required during refueling operations and specified in Technical Specifications 3/4.9 were current during the period reviewed. Proper crew composition in accordance with Technical Specification 6.2-1 was confirmed on several occasions by direct observation and discussions with persons involved in fuel handling. Other limiting conditions for refueling operations such as communications, vessel water level, and refueling machine operability were also confirmed by direct observation.

While on site the inspector raised the concern of a non-licensed operator, contract vendor, moving fuel within the reactor vessel by use of the manipulator crane. After returning to the Regional Office and discussing this concern with management it was concluded that the licensee met the requirements of Technical Specifications 6.2-1 by having a licensed Senior Reactor Operator on the containment operating floor supervising core alterations.

However, the practice of a nonlicensed operator moving fuel within the reactor vessel does appear to conflict with 10 CFR 50.54(i), which requires that the licensee shall not permit the manipulation of the controls by anyone who is not a licensed operator or senior operator.

The operation of moving fuel within (over) the core is defined in Chapter 13.2, "Training Program" of the FSAR, as a reactivity change. "Controls" as defined by 10 CFR 50.2(t) when used with respect to nuclear reactors means apparatus and mechanisms, the manipulation of which directly affects the reactivity of the reactor.

Further evaluation of this matter is being conducted by NRC Headquarters. Until this evaluation is completed, this item (338/79-41-06) is unresolved.

6. Licensee Event Reports Review (Unit 1)

The following LER's were reviewed to verify that reporting requirements had been met, csuses had been identified, corrective actions appeared appropriate, generic applicability had been considered, and the LER forms were complete. Additionally, for those reports identified by asterisk, a more detailed review was performed to verify that the licensee had reviewed the events, corrective actions had been taken, no unreviewed safety questions were involved, and violations of regulations or license/Technical Specification conditions had been identified.

- a. LER 79-092/03L-0 *dated August 29, 1979. Outdated surveillance procedure used on diesel generators. The licensee's report indicated that an administrative procedure change was being written to provide better control for plant procedures undergoing revision. The inspector reviewed and verified the completion of this procedure ADM 13.1, Procedure Revision dated September 20, 1979. The inspector had no further questions in this area.

- b. LER 79-097/05L-0 *dated August 23, 1979: Individual Rod Position Indication (IRPI) for rod D-10 disagreement from group indication. The inspector reviewed Engineering Study 79-34 dated July 23, 1979 and Westinghouse letter VRA-79-516 dated May 10, 1979, which describes vendor actions to correct the apparent IRPI drift problems noted at this and other facilities. Licensee staff indicated that once the Vendor redesigns the system, the facility would review it for implementation. Until then, previously opened item (79-16-02) on this problem remains open.
- c. LER 79-098/03L-0 *dated September 10, 1979: Failure to time the operation of valve MOV-QS102B in accordance with ASME Section XI requirements. The inspector reviewed the licensee's program for inservice testing of Code Class 1, 2, and 3 valves according to ASME Section XI, Article IWV 3400 and exemptions as authorized by the NRC letter of October 17, 1977. According to Article IWV 3400, all category A and B valves as defined in Article IWV 2110, must be cycled every 3 months to insure operability. The exemptions authorized by NRC allow certain specific valves to be cycled at longer frequencies as justified and defined in the licensee's letter serial 052C of August 10, 1977. Using these references, the inspector first reviewed the licensee's Surveillance Procedures, Periodic Tests (PTs) 1-PT-130 through 1-PT-145, inclusive (14 procedures) plus 16 other PT's and 5 Operating Procedures. The inspector noted that valves MOV-RS-100A and MOV-RS-100B, the motor operated isolation valves from the Casing Cooling System to the outside Recirculation Spray Pumps suction, though discussed in 1-PT-64.4A and B, are not required to be cycled, as required by article IWV 3400, in any procedure.

Technical Specification (TS) 4.0.5 requires the licensee to adhere to the surveillance requirements of ASME Section XI. TS 6.8.1C further directs that written procedures be established, implemented, and maintained which cover surveillance and test activities of safety related equipment.

Licensee management was informed that failure to establish and maintain a procedure to cycle the above mentioned two valves appears to be in noncompliance with TS 6.8.1.C (Infraction 79-41-01). This finding follows up on an unresolved item (79-37-01) described in IE Report 338/79-37 paragraph 6h.

Licensee management was further advised that the exemptions authorized by NRC were valid for only 20 months following the start of commercial operation. As a result, on February 6, 1980, the exemptions, which effect 73 valves, expire, and new test controls must be resolved. This matter will be followed up in future inspections (338/79-41-02).

Another issue which arose was that many exemptions, as specified by the licensee in the August 10, 1977 letter, exempt the valves from the requirement to exercise them every 3 months, except when in cold shutdown. The licensee had interpreted this to mean that these valves

therefore should be cycled once each cold shutdown not to exceed once per 92 days. However, during an extended shutdown lasting greater than 92 days, these valves are required to be cycled every 3 months ($\pm 25\%$). The licensee's present outlook for the refueling outage in progress indicates that the plant may remain shutdown over 100 days. Licensee action to establish controls and conduct valve cycling procedures, should they be necessary for an extended shutdown/refueling outage shall be reviewed in future inspections (338/79-41-03).

The inspectors also reviewed the licensee's controls to insure stroke timing of valves following maintenance per the IWV program and had no further questions in this area.

- d. LER 79-099/03L dated September 10, 1979: Containment Hi-Hi pressure channel alarm bi-stable failure.
- e. LER 79-102/03L-0 dated October 10, 1979: Containment Hi-Hi pressure channel failure.
- f. LER 79-103/03L-0 dated September 18, 1979: Casing cooling tank temperature exceeded limits.
- g. LER 79-105/03L-0 dated September 27, 1979: Containment particulate and gas monitors inoperable for 2 hours. A similar incident was reported in LER 79-68, for which a design change, DC-S35, has been initiated as corrective action. The scope and completion of this design change is identified for followup in future inspections (338/79-32-02).
- h. LER 79-106/03L-0 *dated October 3, 1979
LER 79-114/03L-0 *dated October 10, 1979
LER 79-118/03L-0 *dated October 12, 1979, and
LER 79-122/03L-0 *dated October 17, 1979: All concerned steam generator support temperatures exceeding specified limits high or low. These four reports all resulted from difficulties incurred in manual operation of the steam generator support heaters after the automatic temperature controller failed in September. The licensee identified an error in one report (79-114), which indicated a design change would definitely be completed during the present refueling outage. The design change, No. 79-S28 is finalized and approved, but parts may not be supplied in time to accomplish this change during this outage. The submission of a supplemental report is held as an open item (338/79-41-04), and the completion of design change 79-S28 shall be followed up in future inspections (338/79-41-05).
- i. LER 79-107/03L-0 dated September 28, 1979: Waste gas charcoal filter system inoperable.
- j. LER 79-108/03L-0 dated October 4, 1979: Auxiliary feedwater pump 1-FW-P-3A inoperable due to clogged lube oil strainer.

- k. LER 79-113/03L-0 dated October 10, 1979: One pressurizer level indication channel inoperable.
- l. LER 79-115/03L-0 *dated October 12, 1979: One loop B steam flow indicator failed low. The inspector verified the licensee commitment to repair the steam flow transmitter root valve by reviewing maintenance request N1-79-01161309. This work, scheduled for the present refueling outage, will replace the root valve with a welded bonnet valve. The inspector had no further questions in this area.
- m. LER 79-116/03L-0 dated October 8, 1979: Individual Control rod position indication drift on two rods beyond 12 steps. This item is similar to LER 79-097 discussed in b. above.
- n. LER 79-117/03L-0 dated October 12, 1979: Auxiliary feedwater pump 1-FW-P-2 inoperable during maintenance on valve TV-MS111A. Due to the volume of reports concerning maintenance on steam trip valves TV-MS111A and MS111B, the licensee plans to investigate operation of these valves, with the vendor during this refueling outage. Followup of licensee action is already identified for future inspections (338/79-32-03).
- o. LER 79-119/03L-0 dated October 12, 1979: Steam line differential pressure bistable for loop 2 Channel 2 inoperable.
- p. LER 79-121/03L-0 dated October 17, 1979: Containment sump flow indicator failed.

7. Previously Identified Items

(Closed) Open item (79-10-02) Licensee to upgrade tracking system for IE Bulletins, Circulars, and Notices. The licensee has completed a computer tracking program for these documents and combined with a weekly update of commitment requirements, keep management informed of requirements for responses, and deadlines for completion of actions.

(Open) Open item (79-30-03): Licensee to resubmit LER 79-055 to clarify problems that occurred with the IRPI system. Licensee staff explained the large volume of maintenance requests that were generated during the evening of March 30, 1979 on a total of 10 different control rods, and indicated an error in documentation was involved. During the reactor startup, technicians had adjusted each IRPI indicator that was observed to drift from the bank step counters, all but 3 of which were adjusted prior to exceeding the 12 step differential limit. This action was documented on maintenance requests which erroneously identified each control rod IRPI worked on as being greater than 12 steps from demand. The inspector was not able to verify this data, however, and leaves this item open pending review of documentation which clarifies this information.