10 CFR 50.73

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION
P. O. BOX 402
MINERAL, VIRGINIA 23117

March 29, 1990

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. N-90-005
NAPS/DEQ:deq
Docket Nos. 50-338
50-339

License Nos. NPF-4
NPF-7

Dear Sirs:

The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Units 1 and 2.

Report No. LER 90-004-00

This Report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to Safety Evaluation and Control for their review.

Very Truly Yours,

for Martin L Bowling

G.E. Kane
Station Manager

Enclosure:

cc: U.S. Nuclear Regulatory Commission
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30323

Mr. J. L. Caldwell
NRC Senior Resident Inspector
North Anna Power Station

IE22

NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
NORTH ANNA POWER STATION UNITS 1 & 2	0 5 0 0 0 3 3 8	1 OF 0 5

TITLE (4)

MISSED TS SURVEILLANCES (4.11.1.1, 4.11.1.3, AND 4.11.2.4) DUE TO PERSONNEL ERROR

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 3	1 2	9 0	9 0	— 0 0 4	— 0 0	0 3	2 9	9 0	NORTH ANNA UNIT 2	0 5 0 0 0 3 3 9
										0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
G. E. Kane, Station Manager	AREA CODE 7 0 3 — 8 9 4 — 2 1 0 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

During the annual audit of the Offsite Dose Calculation Manual (ODCM), Quality Assurance and Health Physics personnel discovered that the 31 day dose projections for liquid and gaseous releases were not performed during 1989 as required by the surveillance requirements of Technical Specifications 3.11.1.3 and 3.11.2.4, respectively. During a review of the deviation report database for similar events, station personnel discovered that, on one occasion, the turbine building sump was discharged without being sampled as required by the surveillance requirements of Technical Specification 3.11.1.1. These events are reportable pursuant to 10 CFR 50.73(a)(2)(i)(B).

As an immediate corrective action, Health Physics personnel verified that the doses due to liquid and gaseous releases from the site had been and were being projected every 31 days during 1990 as required by the Technical Specifications. In addition, actual monthly dose assessments for 1989 were verified to be within the limits stated in the Technical Specifications. Upon being questioned about the turbine building sump sample required prior to release, Operations personnel terminated the release and obtained the necessary sample. Results of the sample analysis determined that the turbine building sump radioactivity concentration was less than the lower limit of detection.

The health and safety of the general public were not affected at any time during this event.

1.0 Description of the Event

During the weeks of February 12th through March 12th 1990, with Units 1 and 2 at 100 percent power (Mode 1), the Offsite Dose Calculation Manual (ODCM) annual audit required by Technical Specification 6.5.3 was being performed. During this audit, Quality Assurance and Health Physics personnel discovered that the doses due to liquid and gaseous releases from the site were not projected at least once per 31 days during 1989, as specified in the surveillance requirements of Technical Specifications 3.11.1.3 and 3.11.2.4, respectively. During a review of the deviation report database for similar events, station personnel discovered that the turbine building sump had been discharged on July 15, 1989 without being sampled as required by the surveillance requirements of Technical Specification 3.11.1.1. These events are reportable pursuant to 10 CFR 50.73(a)(2)(i)(B).

Technical Specification 3.11.1.3 requires that the liquid radwaste ion exchanger system be used to reduce the radioactive materials in liquid wastes prior to their discharge when the projected doses due to the liquid effluent, from each reactor unit, to unrestricted areas would exceed 0.06 mrem to the total body or 0.2 mrem to the critical organ in a 31 day period. The corresponding surveillance requirement requires doses due to liquid releases from the site to be projected at least once per 31 days in accordance with the ODCM. Technical Specification 3.11.2.4 requires, in part, that the gaseous radwaste treatment system and the ventilation exhaust treatment system be used to reduce the radioactive materials in gaseous waste prior to their discharge when gaseous effluent releases are projected to have gaseous effluent air doses, from each reactor unit, from the site to areas at and beyond the site boundary in excess of 0.2 mrad for gamma radiation and 0.4 mrad for beta radiation over 31 days. The corresponding surveillance requirement requires doses due to gaseous releases from the site to be projected at least once per 31 days in accordance with the ODCM.

During the annual audit of the ODCM, QA personnel reviewing documentation located in the records vault could not locate the 1989 projected dose calculations for liquid and gaseous releases which are required to be performed every 31 days by the Technical Specifications. However, projected dose calculations for the discharge of liquid effluents when the liquid radwaste ion exchanger system was out of service were located.

1.0 Description of the Event Cont'd.

Following discovery of the missing documentation, the Health Physics Department was contacted to determine if the 1989 documentation for the 31 day dose projections was located in the Health Physics count room. The documentation could not be located in the count room. Personnel assigned to the count room are normally rotated on an 18 month basis and an activity schedule is developed at the end of each year, by either the current or the oncoming Health Physics Technician, for the upcoming year. Subsequent interviews with personnel assigned to the count room during 1989 verified that dose projections for liquid and gaseous releases had not been performed every 31 days during 1989 as required by the Technical Specifications.

Effective January 1, 1989, new Health Physics count room procedures were implemented as a result of the rewrite of the Radiological Protection Plan. The Health Physics Technician who prepared the activity schedule for 1989 failed to enter the requirement to perform dose projections due to liquid and gaseous releases at least every 31 days as per the new procedures for Radioactive Liquid and Gaseous Waste Accountability and 31 day Dose Projections, HP-7.3A.22 and HP-7.3A.32, respectively. Consequently, 31 day dose projections per procedures HP-7.3A.22 and HP-7.3A.32 did not appear on the monthly procedure activity schedule during 1989 and were not performed. The Health Physics Technician that developed the 1990 Health Physics activity schedule did place the requirement to perform dose projections due to liquid and gaseous releases at least every 31 days as per Health Physics procedures HP-7.3A.22 and HP-7.3A.32 into the 1990 procedure activity schedule. Dose projections are being accordingly performed on a 31 day frequency during 1990 as required by the Technical Specifications.

The surveillance requirements of Technical Specification 3.11.1.1 requires the turbine building sump pumps to be placed in manual operation and samples taken and analyzed prior to release whenever the secondary coolant activity exceeds 10E-5 microcurries per ml. During a review of the deviation report database for similar events, station personnel discovered that a turbine building sump pump was operated from 0200 to 0500 hours on July 15, 1989, while the secondary coolant activity exceeded 10E-5 microcurries per ml, without the turbine building sump being sampled as required by the surveillance requirements of Technical Specification 3.11.1.1. At approximately 0500 hours on July 15, 1989, Health Physics personnel questioned Operations personnel about the turbine building sump sample required prior to release. At that time the discharge was terminated and the necessary sample obtained. Results of the sample analysis determined that the turbine building sump radioactivity concentration was less than the lower limit of detection.

1.0 Description of the Event Cont'd.

On March 26, 1990, the Station Nuclear Safety and Operating Committee determined this event to be reportable pursuant to 10CFR50.73(a)(2)(i)(B). Since this event is also a failure to perform Radiological Monitoring surveillance required by the Technical Specifications, this event is being reported in this LER.

2.0 Significant Safety Consequences and Implications

Failure to perform the monthly dose projections due to liquid and gaseous releases posed no significant safety implications because the actual 1989 monthly dose assessments were verified to be within the limits stated in the Technical Specifications. Doses were projected prior to the discharge of liquid effluents four times during 1989 when the liquid radwaste ion exchanger system was out of service as required by Technical Specification 3.11.1.3 (see Section 1.0). Also, both the liquid radwaste ion exchanger system and the gaseous radwaste treatment system are routinely used to treat effluents, therefore meeting the basis of the surveillance requirement.

Failure to sample the turbine building sump prior to discharge posed no significant safety consequences because analysis results of both the previous turbine building sump sample (2305 hours on July 14, 1989) and the turbine building sump sample taken at approximately 0500 hours on July 15, 1989, determined that the radioactivity concentration was less than the lower limit of detection.

The health and safety of the general public were not affected at any time during this event.

3.0 Cause of the Event

The 31 day Dose Projections per Health Physics procedures HP-7.3A.22 and HP-7.3A.32 were not performed during 1989 as a result of a scheduling inadequacy due to personnel error.

Failure to sample the turbine building sump prior to discharge was a result of personnel error.

4.0 Immediate Corrective Action

As an immediate corrective action, Health Physics personnel verified that the doses due to liquid and gaseous releases from the site had been and are being projected every 31 days during 1990 as required by the Technical Specifications.

Upon being questioned about the turbine building sump sample required prior to release, Operations personnel terminated the discharge and obtained the necessary sample.

5.0 Additional Corrective Action

As an additional corrective action, actual monthly dose assessments for 1989 were verified to be within the limits stated in the Technical Specifications.

Operations personnel involved in the failure to sample the turbine building sump prior to discharge were counseled and reminded of the requirements of Technical Specification 3.11.1.1.

6.0 Actions to Prevent Recurrence

To prevent recurrence of similar events, Periodic Tests (PTs) will be developed for those Technical Specification required surveillances that are performed by the Health Physics Department. These PTs will be entered into the station Periodic Test Scheduling System (PTSS) to ensure they are performed within the time frames required by the Technical Specifications.

The actions taken in Section 5.0 above should prevent running of the turbine building sump pumps prior to release.

7.0 Similar Events

Similar events involving a missed surveillance due to inadequate scheduling controls have occurred on Unit 2 on July 8, 1987 as reported in LER N2-87-007-00 and on September 16, 1987 as reported in LER N2-87-011-00. The corrective action for the above events was to enter the appropriate PTs into the PTSS. This has proven to be adequate to prevent missing these surveillances. By incorporating the remaining Technical Specification surveillances into the station PTSS, as described above, the probability of similar events occurring in the future will be minimized.