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VIRGINIA ELECTRIC AND POWER COMPANY

RICHMOND, VIRGINIA 23261

April 28, 1980

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 376
PO/ERSjr/baw
Docket Nos: 50-280
50-281
50-338
50-339

Dear Mr. Denton:

Lessons Learned Short Term Requirements
Surry Power Station Units 1 and 2
North Anna Power Station Units 1 and 2

Additional information regarding implementation of Category A Short Term Lessons Learned Requirements for North Anna and Surry is attached. This information was requested in recent telephone conversations with your staff.

The attachment should further clarify our previous information on this subject. The previous commitment date, where applicable, was the steam generator replacement outage. This date is revised to be the next Unit 1 refueling.

Your staff further requested information on the leaktightness of the containment particulate and gas monitor at Surry. We have determined that information and it is provided in the attachment. The as-left information is not available at this time. We will forward that information when it becomes available.

Should you need more information, please contact us.

Very truly yours,

For B. R. Sylvia
Manager-Nuclear Operations
and Maintenance

cc: Mr. James P. O'Reilly

Attachment

Additional Information
NUREG-0578: Short Term Lessons Learned
Requirements

2.1.4 Containment Isolation

A. Containment Gaseous Activity and Particulate Monitoring System, Reactor Containment Leakage Monitoring System, and Containment Vacuum System Suction Line (Surry only)

Design changes to provide diversity for these three systems are in various stages of preparation and review.

These modifications will be completed by the end of the next refueling for Unit 1 and Unit 2, pending equipment availability.

B. Condenser Air Ejector (North Anna)

We will revise applicable procedures to require that prior to reset of the (Phase A) isolation signal, if the air ejector radiation monitor is in alarm, the air supply to the isolation valve will be secured. This will close the valve.

We believe that this administrative control is adequate to provide proper isolation. We are, however, pursuing a design change to provide diversity.

This modification will be completed by end of the next refueling for Unit 1 and Unit 2.

C. Condenser Air Ejector (Surry)

We revised applicable procedures to check for positive containment pressure following a Safety Injection actuation. If this pressure is positive or if positive pressure is imminent, operations personnel will be directed to defeat the divert of the air ejector valves. (This is accomplished by securing the air supply to the divert valve. This action will prevent valve opening to the containment if a high radiation signal is received. This operator action will also cause valve closure to the containment if a high radiation signal already exist.

We are presently pursuing a design change to provide diversity.

This modification will be completed by the end of the next refueling for Unit 1 and Unit 2.

2.1.8.a. Improved Post Accident Sampling Capability Short-Term Requirements

A. Containment Atmosphere Sample

1. Noble Gases

A portable 18 ml bomb is available, providing a means for drawing a sample within one hour after an accident for each station. This temporary bomb utilizes an existing sample connection. (RM-RMS-159 for North Anna and RM-12 for Surry). This sample bomb has quick-disconnect fittings. The portable bomb will be used until a new temporary bomb is installed as discussed below.

A temporary sampling system should be installed by May 30, 1980 in order to provide the capability of obtaining a containment atmospheric sample within one hour after an accident without incurring a radiation exposure in excess of 3 and 18 3/4 rems to the whole body or extremities, respectively. This modification involves adding remote sample connections, temporary shielding, heat tracing, tubing, manual valves, and fittings. The sample taken (2 ml) will be diluted in the laboratory and analyzed for isotopic quantities using existing equipment.

2. Hydrogen Analysis

Gas partitioners have been provided and will be used to analyze hydrogen from the containment atmospheric samples until a permanent gas chromatograph is available.

B. Iodine and Particulate Samples for Containment Atmosphere, Ventilation Vent and Process Vent.

Iodine and particulate samples can be taken using the existing radiation monitoring systems and procedures. Silver Zeolite cartridges are used in place of charcoal cartridges. The Silver Zeolite has a retention efficiency for Xenon of less than 5×10^{-6}%. The procedures utilize measures to minimize exposure during sampling and counting.

C. Power Supply

When offsite power is lost, battery operated pumps are available to provide sample flow in order to obtain the appropriate post accident samples. Dedicated portable battery powered survey instruments and offsite locations provide the interim backup means to evaluate the samples.

D. Equipment Procurement

Delivery on the "post-accident" single channel analyzer is 120 day A.R.O. (7/30/80).

E. Equipment Use

We have estimated that after arrival at the sample location it would take approximately five (5) minutes to determine activity levels for a high activity sample and approximately one (1) hour to determine activity levels for a low activity sample.

Other Information

Containment Particulate and Gaseous Radiation Monitor Leakage (Surry)

You requested that we determine the as-found and as-left values for leakage from this monitor. This monitor normally operates under a vacuum and high leak rates are not experienced. This monitor is isolated automatically by containment safeguards actuation signals. The leakage test was a pressure test.

As-found: 200 scfm (first attempt)
185 scfm (second attempt)

Repairs have been made and the monitor will be leak tested. As-left information will be reported to you as soon as possible.

Environmental Qualification Portion of the Shielding Review

We expect to complete this effort by January 1, 1981.