

May 10, 2002

Mr. David A. Christian,
Senior Vice President and Chief Nuclear Officer
Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, Virginia 23060-6711

**SUBJECT: RESULTS OF DAM SAFETY AUDITS FOR THE CATEGORY I SERVICE WATER
RESERVOIR DAM AT THE NORTH ANNA NUCLEAR POWER PLANT**

Dear Mr. Christian:

Routine safety inspections were conducted for the Category I Service Water Reservoir (SWR) Dam at the North Anna Nuclear Power Plant on February 12, 1997; January 27, 1999; and January 24, 2001. This correspondence summarizes relevant activities and communications related to the safety inspections and requests your attention and response to potential safety-related issues identified in the enclosed Operation Inspection Reports generated by NRC's technical assistance contractor, the Federal Energy Regulatory Commission (FERC).

On November 13, 1997, the U.S. Nuclear Regulatory Commission (NRC) submitted to Virginia Electric and Power Company (VEPCO) a copy of the final report from FERC for the 1997 inspection. With the report was a request that certain actions be taken to ensure the continued safety of the dam for the Category I SWR consistent with the Federal Guidelines for Dam Safety (1979) and the Dam Safety Program Act defined in the Water Resources Act of 1996. A second letter from NRC to VEPCO, dated December 16, 1997, placed corrective action dates in abeyance.

On January 28, 1998, Mr. M.R. Kansler of VEPCO provided a written corrective action plan in response to NRC's letter of November 13, 1997. Mr. Kansler reported that "several of the findings require no further action at this time." Although the VEPCO letter was responsive to several of the NRC concerns, a difference of opinion regarding the origin of suspected seepage water was unresolved. On the basis of water sampling and testing, reported in paragraph 4, on page 6 of the January 28, 1998, response, VEPCO concluded, "These conductivity tests clearly indicate the water obtained from piezometer P-22 and the drainage area did not originate from the reservoir and therefore are not the result of seepage from the reservoir."

Notwithstanding the above, the NRC inspection of January 27, 1999, found persistent evidence of apparent seepage from the reservoir, and our concerns were discussed with VEPCO representatives. Since the seepage issue remained unresolved after the 1999 inspection, a final NRC report was not issued at that time, and it was decided that the question would be resolved following the 2001 inspection. The NRC inspection of January 24, 2001, again found evidence of suspected seepage. On the basis of subsequent telephone conversations with Mr. Mike Whalen (VEPCO), NRC was informed that no additional licensee action on this issue beyond the conductivity tests and analyses reported on January 28, 1998, was forthcoming.

On December 31, 2001, a NRC Hydrologist submitted a Technical Review stating that the information proffered by VEPCO on January 28, 1998, is insufficient to reasonably determine if

water from the SWR is related chemically to water from the piezometer P-22 and/or surface water found below the SWR dam. The Technical Review (Enclosure 4) included suggested alternate testing methods.

The seepage issue is critical to the long-term stability of the SWR dam. Although the suspected seepage noted in NRC's report of November 13, 1997, was not by itself sufficient to suggest immediate concerns regarding the integrity of the dam and associated control facilities, FERC nevertheless stated that, "These wet locations, considered with increased piezometer readings, continue to indicate significant changes in the embankment behavior, which could directly affect the stability and performance of the dam." Furthermore, we are concerned about conditions that might continually affect the maintenance and safety of the dam.

Given the concerns stated by FERC and the persistence of the wet areas observed in three successive inspections, you are requested to re-address the seepage issue and provide written response within 180 days regarding unresolved recommendations from the 1997 and 1999 FERC inspection reports, recommendations from the 2001 FERC Inspection, Proposed Technical Specification Changes, and the attached Technical Review dated December 31, 2001. These items are found on pages 18-20 in the enclosed FERC Operation Inspection Report dated January 29, 2002 and as Enclosure 4. Your response should also address the instrumentation issues identified in the FERC Operation Inspection Report. No direct response to FERC regarding its findings and followup actions is required.

Original copies of the FERC reports, dated May 14, 1997; and January 30, 2002, which include photographs taken of various area that were inspected during the inspections, are provided as Enclosures 1-3. Due to protocol subsequent to the events of September 11, 2001, the enclosures are designated "not available" for public release.

If you have any questions regarding the responses and information requested, the report, or schedule for submittal of information, please call me at (301) 415-6704.

Sincerely,
/RA/

Daniel S. Rom
Dam Safety Officer
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 50-338/339

Enclosures:

1. FERC/NRC Operation Inspection Rpt (1997)
2. FERC/NRC Operation Inspection Rpt (1999)
3. FERC/NRC Operation Inspection Rpt (2001)
4. NRC Technical Review (2001)

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