

August 29, 2002

ORGANIZATION: DOMINION VIRGINIA ELECTRIC AND POWER COMPANY (VEPCO)  
FACILITIES: NORTH ANNA, UNITS 1 AND 2, AND SURRY, UNITS 1 AND 2  
SUBJECT: SUMMARY OF MEETING WITH DOMINION VEPCO TO DISCUSS  
COMMENTS RECEIVED FROM THE ADVISORY COMMITTEE ON  
REACTOR SAFEGUARDS (ACRS) ON THE DRAFT SAFETY  
EVALUATION REPORT (SER) WITH OPEN ITEMS

On August 8, 2002, the U.S. Nuclear Regulatory Commission (NRC) staff met with Dominion VEPCO to discuss the ACRS comments on the draft SER with open items related to the license renewal of the North Anna, Units 1 and 2, and Surry, Units 1 and 2. Enclosed are the NRC staff's handout for the meeting (Enclosure 1), Dominion VEPCO's graphs on total number of flow accelerated corrosion events (Enclosure 2), and the list of meeting attendees (Enclosure 3).

The following issues were discussed with Dominion VEPCO:

#### Cases of Pitting and Leakage in Service Water System Piping at Surry

Dominion indicated that they continue to conduct inspections on the pipes in accordance with Generic Letter (GL) 89-13 requirements. Currently, at Surry, there is a project in place to repair welds and recoat the pipes. The Secondary Piping Inspection Aging Management Activity will continue through the period of extended operation.

#### Reactor Vessel Neutron Embrittlement Values in Support of TLAA Calculations

Dominion indicated that pressurized thermal shock (PTS), upper shelf energy (USE), and nil ductility temperature (NDT) values for all the reactor vessel beltline material are available and they will provide them to the staff for independent evaluation. Prior to this meeting, Dominion VEPCO had provided data on the PTS, USE, and NDT values to the staff. This report is available in NRC's Agencywide Documents Access and Management System (ADAMS) (Accession No. ML022190253). The staff and Dominion scheduled a conference call for August 20, 2002, to discuss the details of this issue. Dominion agreed to formally submit these values to the NRC.

#### V.C. Summer Hot-leg Nozzle Cracking Event

Dominion indicated that the issue of potential problems with dissimilar metal welds does not exist for the main RCS piping welds at Surry or North Anna, since dissimilar metal welds do not exist at those locations. However, some dissimilar metal welds exist within the bounds of the reactor coolant system. Dominion emphasized that it remains

committed to the requirements of American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, Subsection IWA-5000, which specifies hold times during hydrostatic testing. For insulated components, a hold time of four hours is required after attaining system temperature and pressure. If the component is uninsulated, the hold time is 10 minutes. Dominion will maintain compliance with the requirements of IWA-5000. Similarly, Dominion plans to achieve compliance with ASME Code, Section XI, Appendix VIII, Supplement 10, which identifies new requirements to be implemented by November 22, 2002. These requirements describe updated qualification blocks and personnel qualifications for examining dissimilar metal welds. Dominion also continues its involvement with the Materials Reliability Project, and will evaluate any new recommendations that may be developed with respect to dissimilar metal piping welds.

#### Trend of Erosion/Corrosion Events at North Anna/Surry (NAS/SPS) Stations

Dominion indicated that the number of secondary-side-piping replacements has decreased. Flow accelerated corrosion (FAC)-related occurrences are more common on the condensate system, steam extraction, etc. Dominion also presented data for the number of replaced pipes over the past 14 years and two charts to show that the trend of the total number of replaced pipes has been decreasing for the secondary piping and component. During the meeting, the NRC staff provided a handout (Enclosure 1) and asked the applicant to make the requested values available.

#### Over-flooding Event in Underground Cable-vault Treated at NAS/SPS

Dominion indicated that its primary objective is to continue to inspect the underground cable vaults to ensure that cables remain dry. Dominion will revise its updated final safety analysis reports for both nuclear stations to include this commitment. Cases of cable-vault flooding have occurred and the applicant has entered this activity into its corrective action program.

#### Opportunistic Nature of One-time Inspections

Dominion indicated that the determination of location for baseline buried piping inspections depends upon the combination of environment and material, types of system piping, and whether or not the piping is wrapped or coated. In addition, the applicant has verified that the soil condition is consistent within the protected area of the power stations. Dominion emphasized that the planned inspection activities will take advantage of excavations performed for routine maintenance, but additional excavations will be performed to inspect those limiting locations that are not inspected during routine maintenance before the period of extended operation.

#### Baffle Bolt Cracking

Dominion committed to perform a one-time volumetric inspection on reactor baffle bolts prior to the end of its current operating licenses for one reactor vessel at either North Anna or Surry. Dominion is bound to WCAP-14577, "License Renewal Evaluation: Reactor Internals," and will comply with Material Reliability Program (MRP) recommendations for inspection.

### License Renewal Inspections

The NRC Region II inspectors plan to make a presentation to the ACRS full committee in December 5, 2002, on the license renewal inspection process, inspection plan, and inspection findings for the North Anna and Surry Stations.

### Groundwater Monitoring

Dominion indicated that the historical sampling data do not indicate a significant seasonal variation of groundwater chemistry. However, Dominion will stagger the taking of groundwater samples at various quarters of the year to monitor for seasonal variations. Dominion also indicated that if the groundwater chemistry is found to be aggressive (pH<5.5) a plant-specific aging management program will be required.

### Davis-Besse Event

Dominion indicated that they plan to replace all four reactors' pressure vessel heads beginning in 2004. In addition, they committed to perform additional "bare" head inspections during refueling outages prior to replacing vessel heads. Dominion has provided this information in response to Bulletin 02-01.

This meeting summary has been shared with and reviewed by Dominion.

*/RA/*

Omid Tabatabai, Project Manager  
License Renewal and Environmental Impacts Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos. 50-338, 50-339, 50-280, and 50-281

Enclosures: As stated

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**NRC Meeting Attendance List**

NRC Staff Meeting with Dominion VEPCO to Discuss ACRS Comments  
August 08, 2002, Room O-12B4

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