VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

July 18, 2008

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
11555 Rockville Pike
Rockville, Maryland 20852

Serial No. 08-0327
SS&L/TJN R1
Docket No. 50-281
License No. DPR-37

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)
SURRY POWER STATION UNIT 2
ORDER EA-03-009 SIXTY-DAY REPORT
REACTOR PRESSURE VESSEL HEAD INSPECTION RESULTS

On February 20, 2004, the NRC issued the First Revised Order (EA-03-009) establishing interim inspection requirements for reactor pressure vessel (RPV) heads. In accordance with the Order's inspection and reporting requirements, this letter provides the results of the visual examination of the reactor vessel upper head surface (including 360 degrees around each RPV head penetration nozzle) to identify any evidence of boron or corrosive product. This examination was performed during the Surry Power Station Unit 2 spring 2008 refueling outage.

If you have any questions or require additional information, please contact Mr. Trace Niemi at (757) 365-2848.

Sincerely,

D. E. Jernigan, Site Vice President
Surry Power Station

Commitments made in this letter: None

Attachment: Sixty-Day Report - Reactor Pressure Vessel Head Inspection Results - Surry Power Station Unit 2

A101
NRR

CC: U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
Suite 23T85
61 Forsyth Street, SW
Atlanta, Georgia 30303

NRC Senior Resident Inspector
Surry Power Station

Mr. S. P. Lingam
NRC Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. R. A. Smith
Authorized Nuclear Insurance Inspector
Surry Power Station

Attachment

Order EA-03-009
Sixty-Day Report - Reactor Pressure Vessel Head Inspection Results
Surry Power Station Unit 2

Virginia Electric and Power Company
(Dominion)

Sixty-Day Report- Reactor Pressure Vessel Head Inspection Results
Surry Power Station Unit 2

Introduction

During the Surry Unit 2 spring 2008 refueling outage (S2R21), Virginia Electric and Power Company (Dominion) performed an examination of the reactor vessel upper head to meet the First Revised NRC Order EA-03-009 issued February 20, 2004. This examination consisted of a bare metal visual examination of the head surface, including 360 degrees around each reactor pressure vessel (RPV) head penetration nozzle to identify any evidence of boron or corrosive product.

Inspections

The examination method used remote VT-2 examination to inspect the vessel head surface and penetration areas behind the shroud. Direct VT-2 examination was performed on the vessel head surface outside the shroud down to the vessel flange. For Control Rod Drive Mechanism (CRDM) penetrations, the area of interest was 360 degrees around each of the penetrations protruding through the vessel head including the annulus (crevice between the vessel head and the penetrations). For the vessel upper head, the area of interest was the metal surface of the head between and around the penetrations including the head surface down to the transition area at the vessel head flange.

Examination results

Penetrations

An initial inspection was performed in the as found condition. The inspection was performed 360 degrees around each penetration annulus. Compressed air (max. 60 psi) was used to remove loose debris around penetrations which were considered masked. Three penetrations, #30, #50, and #59, required additional evaluation following debris removal using compressed air. No evidence of leakage was identified in these inspections.

Head Surface

A visual examination was performed on the head surface with no evidence of boric acid residue. Some regions contained debris and discoloration but were determined to not be masking an examination of the head surface.

100% examination of the head surface was not possible due to interference with the shroud support structure; however, examination included those areas of the RPV head upslope and downslope from the support structure interference, and examination of greater than 95% of the head surface was achieved.

Summary

In summary, 100% of the annulus regions for the head penetrations and greater than 95% of the vessel head surface were examined using the bare metal visual examination technique with no evidence of leakage or surface degradation.