RAS C-126

U.S. NRC
In re DAVID GEISEN GEISEN Exhibit # 16
Docket # 1A-05-052
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Date: 12/10, 2008 (Tr. p. 1534)

From: Rodney M. Cook/FirstEnergy
To: Prasoon K. Goyal/TE/FirstEnergy@FirstEnergy
cc:

Subject:

Date: 10/16/2001 13:33:251010

---- Forwarded by Rodney M. Cook/FirstEnergy on 10/16/01 01:31 PM ----

Andrew J. Siemaszko
10/16/01 12:49 PM

To: Rodney M. Cook/FirstEnerg
cc: Gerald M. Wolf/TE/FirstEne
Subject:

Attached is a new description of the past inspections that Gerry wrote with my input. Please include in letter

DOCKETED
USNRC

September 9, 2009 (11:00am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

S14D-09187

NRC002-0156

TEMPLATE = SECY-028

DS 02

Job Name:
MORGAN_80957_CD03_ROD_COOK_NOTES

Internal Unique ID:
465

File Path:
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Inspections were conducted during the each of the last three refueling outages in 1996, 1998, and 2000, which were recorded on videotape. These videotapes have been reviewed numerous times by Davis-Besse Systems Engineering as well as other involved organizations after the receipt of NRC Bulletin 2001-01. Specific attention was placed on detecting "popcorn" like or similar boric acid deposits, which are indicative of leakage from the CRDM penetration through the reactor head. The progression of leakage from CRDM flanges was noted during the 1996 inspection. In the 1996 videotape, although the nozzles are not individually identified on the video, it is clearly visible that none of the nozzles in the inspection showed any leakage from the CRDM nozzle penetration through the reactor head. In addition to the video, a visual inspection performed by Davis-Besse Systems Engineering resulted in the conclusion that there were no leaking CRDM nozzle penetrations. At this same time, it can be noted that initial leakage from the CRDM flanges above the insulation is starting to occur. This leakage is evidenced by the flow of boric acid down the CRDM nozzles toward the weep holes. If this leakage was from the CRDM nozzle penetration, it could only occur at full RCS temperature and pressure when the interface between the CRDM nozzle and the reactor head opens. This same pressure and temperature would immediately evaporate any water leaking from the CRDM nozzle penetration, so no flow of boric acid down the reactor head would be evident.

During the 1998 inspection, further evidence exists that the leakage from above the insulation continues to exist and results in flow of boric acid down the CRDM nozzles and toward the weep holes. Again, no leakage is visible in the video from the nozzle penetrations through the reactor head. Similarly, in addition to the approximately 70 percent of the nozzle inspections recorded on video, Systems Engineering performed a visual inspection and again concluded that there were no leaking CRDM nozzle penetrations in 1998.

During 2000 inspection, Davis-Besse System Engineering and FTI conducted a detailed inspection of the nozzle penetrations. The video produced by both parties concentrated only on the area where boric acid was present. At the same time, both parties have noted that there was no deposit of boric acid on the remaining portion of the head, which represented approximately 75 percent of the reactor head surface. Since there was high confidence from the visual examination of the clean portion of the reactor head, a decision was made not to record the inspection on videotape in an effort to keep personnel dose as low as reasonably achievable. Systems Engineering is confident that the area which is not recorded on videotape during the 2000 inspection is free from boric acid deposits, especially "popcorn" like deposits indicative of CRDM nozzle penetration leakage. The remaining 25 percent of the reactor head surface was not inspected due to the presence of boric acid that resulted from the leakage of the CRDM flanges above the insulation. However, these nozzles were fully inspected during 1996 and with limited success in 1998, with no evidence of CRDM nozzle penetration leakage. This area along with a majority of the reactor head surface was cleaned in 2000 to provide a baseline for further inspections in future outages.