S. Barbuse

From: Joseph Schoppy / RI
To: gsb
Date: Fri, Jan 17, 2003 1:18 PM
Subject: HC chem net follow-up

Please see attached. Once again, I would feel more comfortable if we expedited plans to turn this configuration control issue over to PSEG for follow-up and engineering review.

CC: Flb; GWm; Msf2; rkl — R. Lorson

F. Bower G. Mayer M. Ferdas

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BOTTOM LINE: The inspector confirmed the existence of a Hope Creek Chemistry Net. Based on a walkdown, there is no adverse impact on safety-related components. However, the cable runs to support this monitoring function may not meet the PSEG cable installation requirements as specified in VTD PJ200Q-1722. In addition, the installer made six penetrations through four different fire barrier seals. Although professionally installed, there was no paperwork to support this modification (no work order, no engineering review, no fire protection engineer review, no control of parts).

POTENTIAL VIOLATION: Hope Creek TS 6.8.1.a requires that written procedures be established, **implemented**, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Paragraph 9.e of Regulatory Guide 1.33, Appendix A, Revision 2, states that general procedures for the control of maintenance, repair, replacement, and **modification** work should be prepared before reactor operation is begun. PSEG Nuclear procedure NC.NA-AP.ZZ-0008, *Configuration Control Program*, establishes a uniform method for controlling configuration. Contrary to the above chemistry technicians took actions to install a chemistry monitoring network without implementing procedure NC.NA-AP.ZZ-0008 requirements. [NOTE: 10CFR50 Appendix B Criterion III, Design Control, would be the best fit if tied in any way to safety-related components.]

DETAILS:

- Cable runs: (1) From makeup demineralizer control panel 00-C136 (77' turbine building (TB)) through fire barrier penetration S-1317-017 (102' TB) to turbine building sample station 10-C150 (102' TB); (2) from turbine building sample station 10-C150 (102' TB) through fire barrier penetrations S-1317-017 (102' TB) and E-3449-002 (124' rad waste (RW)) to process liquid sample system 10-C351 (124' RW); (3) from process liquid sample system 10-C351(124' RW) through fire barrier penetrations E-3449-002 (124' RW), E-3432-004 (124' RW), and N-3432-009 (124' RW) to the chemistry count room (room 3423 124' RW).

- The installer also tapped off a RWCU panel input to the process liquid sample system 10-C351 (124' RW). The RWCU panel is located in the reactor building (145'). The installer stated that he did not run additional cable from the reactor building to 124' RW to pick up this input (he tapped off an input that was run from a RWCU panel mod completed about five years ago). This would have involved a secondary containment penetration! (The Installer did state "I have a little more respect for secondary containment penetrations.")

- Along with the cable runs, there are several additional converters (TC/IP) and switching devices installed to support data communication between plant monitoring systems and the intranet site. The cables and other devices were hooked up internally at the panels noted above. The installer seemed very comfortable going in to these panels. He may have actually violated some of their NC.NA-AP.ZZ-0015, *Safety Tagging Program*, requirements while making all these modifications to these electrically "hot" panels.

- All cables, converters, switches, and other supplies needed were acquired with PSEG funds (probably an old chemistry slush fund) and purchased outside PSEG's procurement/supply system (equivalent to a Radio Shack but most likely some type of IT equipment supplier).

- The installer appeared very knowledgeable in IT. Chemistry Net appeared to be a very useful tool for performance monitoring (tracking/trending/real-time monitoring).
- Cable routing and fire barrier seal penetrations appeared professionally done.
- No apparent cable separation issues with 1E cables.
- All cable runs appeared to be communication-type cable not control or power cable. Cable was not routed in existing cable trays.
- According to installer, (1) project had been ongoing for two years or more, (2) project put on hold several months ago, (3) chemistry managers approved of installation and provided funding several years ago, (4) no work order for project, and (5) technicians felt it necessary to work around existing processes.