

September 5, 1995

NOTE TO: Don Lindgren  
Westinghouse

FROM: Diane Jackson  
USNRC

SUBJECT: SPLB ITEMS NEEDING DISCUSSION WITH WESTINGHOUSE

As a result of its review of SSAR Rev. 3, and Rev. 4, SPLB identified the following items that need clarification or discussion with Westinghouse:

1. Open Item Numbers 75, 80, 81, 96, 97, 102-105, 109, 110, 114, 115, 117, 133, 136, 145, 146, 148-161, 163, 164, 176-179, 181-185, 188-191, 194, 195, 198, 199, 226, 229, 236, 237, 239, 243-245, 248, 250, 251, 253-255, 260, 265, 271-274, 293, 294, 300, 301, 302, 304, 305, 326, 330, 338, 358-362, 366-370, 372, 373, 375, 377, 379, 380, 382, 383-386, 389-391, 471, 569, 572, 573, 587, 590, 591, 908-914, 947-952, 954, 1019, 1020, 1023, 1094, 1099, 1121, 1150, 1160, 1162, 1164, 1166, 1178, 1180, 1181-1183, 1187, 1188, 1190-1192, 1194, 1195, 1197-1202, 1712, 1764, 1767, 1822, 1928, 1935, 1938, 2022
2. On fire protection items, one reviewer works at home and will be available for conference calls although his items are not identified in the above list. Chandra is anxious to discuss the rest of his fire protection safe shutdown issues.

Additional Questions (without item numbers being defined)

1. From J. Guo: due to design changes in SSAR Rev. 3 and 4
  - a. 1 question on Section 9.2.4, demineralized water storage
  - b. 1 question on Section 9.2.7, chilled water system
  - c. 3 question on Section 10.4.9 startup feedwater system
2. From Ron Young
  - a. Section 3.5.2:  
Are missile shields used with Control Rod Drive Mechanisms?
  - b. Section 3.6.1:  
Include in the SSAR the responses of the following RAIs ---  
410.83, 410.88, 410.89, 410.91, 410.205

Attachment 1

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PDR ADDCK 05200003  
A PDR

3. From Janak Raval

- a. Provide updated SSAR Table 3.2-3 to resolve Items 281-286, 289, 292, 296, 298, 302, and 1766.
- b. The staff is awaiting the following information on AP600 Section 6.4, Habitability Systems, as discussed in the June 21, 1995 meeting:
  - i. Westinghouse will submit formal response to RAI 410.248 (Draft Response was provided during meeting).
  - ii. Westinghouse will revise SSAR section 9.4.1 by adding COLA items for (1) VBS air filtration units in accordance with ASME N 509-1989 and N 510-1989 for design, construction to conform B-36 requirements and (2) VBS ductwork and housing outside of MCRE is in accordance with ASME N 509-1989 and N 510-1989 to conform B-66 requirements.
  - iii. Westinghouse will provide justification for use of ASME Section VIII for VES air tanks.
  - iv. Westinghouse will demonstrate that how annex /turbine building temperatures are modelled in the GOTHIC model.
  - v. Westinghouse will show that the expected humidity response during first 72-hours is not a problem for I&C equipment or the operator performance, since humidity is not controlled by the VES.
  - vi. Westinghouse will confirm that the I&C equipment qualification is consistent with the 120 F room temperatures.

Concerning the assumption of an operator action to shut off the nonsafety-related loads at 24 hours, NRC/I&C staff feels that the procedural fix to be proposed by Westinghouse should be reviewed by NRC/HHFB since it is not wise to turn off indication channels powered through battery banks A&D to prevent temperature rise during "STATION BLACKOUT" and "LOSS OF OFFSITE POWER" events; Therefore, Westinghouse design should (1) reflect avoidance of instrumentation over-heating without operator action during 72-hours period and (2) focus and summarize concerns associated with elevated temperature as a result of loss of normal HVAC as an initiating event or adverse interaction of non-safety/safety system.

- vii. Westinghouse will address the D-I-D criteria (Sufficient Redundancy, Power supply, Designed and arranged for conditions or an environment anticipated during and after events including severe accidents, Protected against internal flooding and other in-plant hazards, Effects of natural phenomena, QA comparable to GL 85-06 and/or RG 1.155, Included in reliability assurance and maintenance programs, Availability control mechanisms/simple Technical Specifications, and Proper administrative controls for shutdown configurations) for VBS as a New Open Item.
- c. RAI Questions 234, 244-248 were not responded by Westinghouse and some responses do not contain the requested information or information supplied is not adequate.

4. From John Segala

Section 9.3.1

- a. What is the rationale for removing the emergency air bottles for the breathing air subsystem in Revision 4 to the SSAR? Also, why was the carbon monoxide detection removed from the system?
- b. SSAR Section 9.3.1.3 (Rev. 4) states that some safe shutdown and accident mitigation pneumatically operated valves are provided with safety-related air accumulators. However, in response to RAI 410.160 and M9.3.1-8, Westinghouse stated that there are no safety-related air accumulators. The only valves which have accumulators are the fourth stage ADS valves which may use N<sub>2</sub> and the MSIVs and MFIVs which use hydraulic/N<sub>2</sub> valves. Westinghouse committed to describe this in the SSAR (Plant Gas System). Does Westinghouse's responses to RAI 410.160 and M9.3.1-8 still hold true after Revision 4 of SSAR Section 9.3.1?
- c. Why is the breathing air subsystem air Quality Verification Level D and the high-pressure air subsystem air Quality Verification Level E?
- d. Describe how the portable breathing air purification system works in the breathing air subsystem and how the integral air purification system works in the high-pressure air subsystem.
- e. Describe how the VES emergency air bottles are protected from a break in the high-pressure air subsystem.
- f. Does both the service air subsystem and the high-pressure air subsystem have two 100 percent capacity air compressor trains?
- g. Why doesn't Revision 4 of SSAR Section 9.3.1 agree with Westinghouse's responses to RAIs 410.152 and 410.153 in regard to separate and isolated subsystems of the CA: instrument air system, service air system, and breathing air system?

- h. Revision 4 of SSAR Section 9.3.1 no longer agrees with Westinghouse's response to RAI 410.156 in regard to using oil free air compressors. The instrument air subsystem, the breathing air subsystem, and the high-pressure-air subsystem should have oil free air compressors.

Section 9.3.5

- i. Why were the curbs around the sumps used to keep out debris removed from the design in Revision 4 to SSAR Section 9.3.5?
- j. SSAR Section 9.3.5.2.2 states that the drain tanks are vented to the atmosphere. Since these tanks could become contaminated, what would prevent the release of airborne radioactivity to the atmosphere?
- k. Why was the sentence "Each sump is provided with two pumps" removed in Revision 4 to SSAR Section 9.3.5?