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APR 20 1977

Docket No. 50-397

MEMORANDUM FOR: S. A. Varga, Chief, Light Water Reactors Branch No. 4, DPM

FROM: D. F. Bunch, Chief, Accident Analysis Branch, DSE

SUBJECT: ACCEPTANCE REVIEW OF WPPSS UNIT NO. 2 FSAR

PLANT NAME: WPPSS Unit No. 2
LICENSING STAGE: OL
DOCKET NUMBER: 50-397
MILESTONE NUMBER: 01-31
RESPONSIBLE BRANCH: LWR No. 4
PROJECT MANAGER: M. Lynch
REQUESTED COMPLETION DATE: April 20, 1977
REVIEW STATUS: AAB Acceptance Review Complete

The Accident Analysis Branch has completed its acceptance review of the WPPSS Unit No. 2 FSAR. We find that sufficient information is presented and recommend that it be accepted for docketing.

This review was coordinated by P. Tam, Nuclear Engineer, Section B, Accident Analysis Branch.

Original signed by:
Delbert F. Bunch

D. F. Bunch, Chief
Accident Analysis Branch
Division of Site Safety and
Environmental Analysis

Enclosure:
Acceptance Review Questions
for WPPSS Unit No. 2

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312.0 SECTION B, ACCIDENT ANALYSIS BRANCH

312.1 (2.2.1) Section 2.2.1 states that there is an explosives and ordnance test site located approximately 13 miles from WPPSS Unit No. 2. Indicate if any explosive waste materials from this area are in the WYE burial ground located adjacent to the western edge of the WPPSS Unit No. 2 property line as shown in Figure 2.1-3.

312.2 (3.5.1.3) Section 10.3.4 indicates that the use of four main steam lines allows the testing of the main steam line isolation valves and turbine stop valves. Contrary to the description in Section 3.5.1.3.7, Section 10.3.4 does not appear to discuss the inspection and testing requirements or procedures which could confirm that all overspeed detection and turbine trip actuation functions are operative.

Provide a brief description and indicate the frequency of the inspection and testing procedures that will be applied to the turbine overspeed protection system. Include such items as turbine steam admission valves, emergency stop valves, and the cross-over intercept valves.

312.3 (3.5.1.4.1) List all structures, systems, and components that will be protected against design basis tornado missiles. Describe the location of each structure, system, and component and indicate how each is to be protected against design basis tornado missiles.

312.4 (3.5.1.4.1) It is the staff's position that plants undergoing construction permit review prior to 1973 should provide adequate protection at least against missiles "C" and "F" described in item 4 of Standard Review Plan Section 3.5.1.4. Describe the degree of protection that will be provided for the items discussed in Question 312.3 above against missiles "C" and "F". Alternatively, the applicant should provide adequate protection against the Revision 1 Tornado Missile Spectrum of the Standard Review Plan.

312.5 (6.1.2) Provide the amounts of paints and other organic materials which do not meet Regulatory Guide 1.54 requirements, and justify that these materials are not present in significant amounts.

312.6 (6.4) The control room leakage characteristics as described in Section 6.4.2.3 of the FSAR indicate that the infiltration rate at 1/8-inch water gauge is 168 cfm, or 0.05 air changes per hour. In accordance with Regulatory Guide 1.95, item C.5, periodic verification testing is required for air exchange rates below 0.06 hr^{-1}. Hence, clarify the statement at the end of Section 6.4.4.2 of the FSAR, wherein periodic verification testing is indicated as not required.

312.7 (6.4) Clarify if the second column heading in Table 6.4-1 is supposed to be "Quantity" rather than "Quality." Also clarify the discrepancy in the pressurization value of 1/8-inch versus 0.25-inch water gauge in Table 6.4-1.

312.8 (6.4) Describe the physical location of the manual purge blind flanges indicated in Figure 9.4-1 which are connected to the air ducts near the remote air intakes. Describe the provisions for precluding remote air intake bypass due to flanges inadvertently being left open.

312.9 (6.4) A failure to close of either of the motor operated dampers WMA-AD-51A-1 or WMA-AD-51B-1 (see Figure 9.4-1) under emergency LOCA conditions would provide an emergency filter train bypass path. Discuss briefly additional protection, if any, which will be provided to prevent potential unfiltered inleakage via this pathway.

312.10 (6.4) Indicate the degree of leaktightness with respect to the check valves in the emergency filter train deluge water drain connections under emergency LOCA conditions. Similarly, describe the leaktightness of the pathway through the water drains for the air handling discharge duct electric pan-type humidifiers.

312.11 (6.4) Indicate the provisions for controlling access through the non-vestibular door through the control room north wall, between column sections 10 and 11 in the event of a LOCA.

312.12 (15.6.5) Provide the following information with respect to a postulated LOCA:

1. Provide a quantitative assessment of the maximum amount of containment leakage which may bypass the SGTS and is released directly to the atmosphere.

2. Provide a description of the sequence of events (SGTS actuation, spray actuation, peak annulus pressure, etc.) with the respective times at which these occur.

3. You have claimed credit for collection of activity by the secondary containment during the initial post-LOCA period. In order to give such credit, we require that a pressure of -0.25-inch wg be maintained in the annulus. Provide a curve describing the post-LOCA annulus pressure versus time.

4. Provide an analysis of post-LOCA ESF leakage as outlined in Standard Review Plan 15.6.5, Appendix B.

312.13 (15.7.2) Provide an analysis of a radioactive liquid waste system leak as outlined in Standard Review Plan 15.7.2.

312.14 (15.7.4) Provide the following information with respect to a postulated fuel handling accident:

1. Describe the radiation monitoring instrumentation which will detect a fuel handling accident inside of the containment structure and in the spent fuel storage building. Provide drawings of the containment and spent fuel pool area exhaust systems which show the location of the radiation detectors relative to the exhaust inlets and isolation valves.

2. Describe the response time of the containment isolation dampers. Indicate closure times which will be included in your technical specifications.

3. Indicate the transit time of a radiation release from the radiation monitor to the isolation valve based on the maximum velocity of the air in the exhaust system.