

CHEMICAL ENGINEERING BRANCH SAFETY EVALUATION
 LICENSEE COMMENTS ON SSER NO. 5
 BEAVER VALLEY UNIT 2

1.0 INTRODUCTION

By letter dated July 31, 1987, the licensee provided a number of comments concerning Section 9.5.1 of Supplemental Safety Evaluation Report (SSER) No. 5. The staff's evaluation of the comments is as follows.

2.0 DISCUSSION/EVALUATION

A number of the licensee's comments are editorial in nature which more accurately describe plant conditions. The staff has reviewed these comments and conclude they are valid. Therefore, the following amendments should be incorporated into SSER No. 5:

<u>SSER PAGE</u>	<u>SECTION</u>	<u>REVISION</u>
9-2	9.5.1	The end of the first paragraph of Section 9.5.1 should read as follows: "... and Confirmatory Issues 48(b) and (c) relating to NRR's Fire Protection Site Visit and the separation of safe shutdown components, respectively."
9-2	9.5.1.4	In the second paragraph of Section 9.5.1.4, the end of the first sentence should read as follows: "... (Fire Area SB-5) from the turbine building (TB-1) and the 773-foot, 6-inch elevation of the auxiliary building (Fire Area PA-5) and which separate Fire Area PA-5 from the health physics area (Fire Area Wh-2) and from Fire Area TB-1 has not been fire-proofed."
9-3	9.5.1.4	The third sentence of the last paragraph on Page 9-3 should read as follows: "The 2-inch portion of the ductwork is above the floor of Fire Area SB-4 and below the upper damper of the two 1-1/2 hour dampers that are in series."
9-5	9.5.1.4	The second to last sentence in the second paragraph on Page 9-5 should read as follows:

<u>SSER PAGE</u>	<u>SECTION</u>	<u>REVISION</u>
		"In addition, the fire hazards analysis identifies nonsafety-related station air compressors in the turbine building; however, a fire in the turbine building would not require use of the station air compressors for safe shutdown since the control room would be available.
9-6	9.5.1.4	<p>The following changes should be made in the second paragraph:</p> <p>The third sentence should begin as follows:</p> <p>"A single train of the above systems provides ..."</p> <p>The seventh sentence should read as follows:</p> <p>"... or from one of the boric acid tanks through ..."</p> <p>The last sentence should read as follows:</p> <p>"... (atmospheric dump valves) in conjunction with the auxiliary feedwater system during cooldown, to a temperature of less than or equal to 350°F, at which ..."</p>
9-9	9.5.1.4	<p>The fifth sentence of the second paragraph should read as follows:</p> <p>"... of the pressurizer heaters, if available."</p> <p>The second to last sentence of the second paragraph should read as follows:</p> <p>"... RCS temperature falls to 350°F, ..."</p>
9-10	9.5.1.4	<p>The third complete sentence of the first paragraph should read as follows:</p> <p>"... for RHR pump ventilation and to the component cooling water heat exchangers."</p>
9-12	9.5.1.4	<p>Under the heading "Auxiliary Feedwater Control Valves," the third sentence should read as follows:</p> <p>"On loss of hydraulic oil, the valves fail as-is (open)"</p>

SSER PAGE

SECTION

REVISION

Under the heading "Atmospheric Steam Dump Valves and Main Steam Isolation Valves" the following changes should be made due to the replacement of the original MSIVs":

In the first sentence, the MSIVs designation should be "2MSS*AOV" (AOV replaces HYC).

The fourth, fifth, and sixth sentences should be replaced with the following:

"The wye pattern globe type MSIVs utilize a pressurized air cylinder to control valve position. Instrument air pressure to each valve cylinder opens the MSIV. Continuous instrument air pressure keeps the valves open. A mechanical spring closes each MSIV when the air cylinder is vented. The air supply line to each cylinder is provided with two fail-closed solenoid valves (orange and purple) in series. Two parallel vent lines extend from each air cylinder. Each vent line contains three fail-open solenoid valves, in series, which are powered from the same emergency bus. This arrangement ensures that loss of either emergency power bus will fail the MSIVs closed."

9-13

9.5.1.4

In the last sentence under the heading "Safe Shutdown Circuitry," Fire Area PT-1 should be deleted from the deviation per FSAR Amendment 16, and Fire Area PA-3 should be added per FSAR Amendment 18.

9-13

9.5.1.4

In the last line under the heading "Electrical Cable Construction, ..." C.5.b should be C.5.e.

9-15

9.5.1.5

Under the heading "Fire Protection Water Supply System," the first sentence should read as follows:

"... thus providing a 370-foot spacing which exceeds the 250-foot spacing indicated in Section C.6.b(7) of BTP CMEB 9.5-1."

9-16

9.5.1.6

Under the heading "New Fuel Area and Spent Fuel Pool Area," the following changes should be made:

In the first sentence, the BTP CMEB 9.5-1 Section for the new fuel area should be C.7.l not C.7.k.

<u>SSER PAGE</u>	<u>SECTION</u>	<u>REVISION</u>
		The last sentence should indicate that the deviations from both Sections C.7.1 and C.7.m are accepted, not just Section C.7.m.
9-17	9.5.1.6	Under the heading "Radwaste and Decontamination Area," the last line should indicate BTP CMEB Section C.7.n, not C.7.m.

In the SSER, under the discussion on fire doors, the staff stated that the licensee had committed to have the security-modified fire doors relabeled by the manufacturer or to maintain file documentation that individual doors are UL-approved. In the July 31, 1987 comment the licensee indicated that a third option was to conduct engineering evaluations to justify the existing door assembly. This approach is sanctioned by staff guidance contained in Generic Letter 86-10. However, the acceptability of such analyses is not automatic and is subject to future audit. Therefore, on page 9-4 the seventh sentence of the second paragraph should read as follows:

"For doors that are missing labels the applicant committed to do one of the following: have the doors relabeled by the manufacturer; maintain on file documentation that individual doors are UL-approved; or perform an engineering evaluation to justify individual door assemblies. The engineering evaluations will be subject to future staff audit."

In the last sentence of the second paragraph on Page 9-4, the words "with the exception of the doors missing labels" should be deleted.

In the SSER the staff evaluated certain repairs that were necessary to achieve safe shutdown and stated that "the indicated repairs are acceptable as they are relatively simple, are not required for hot shutdown, and will ensure that the plant can achieve cold shutdown within 72 hours without additional manpower." The licensee commented that the phrase "without additional manpower" should be deleted. However, the licensing basis for Beaver Valley Unit 2 was based on the licensee's ability to achieve cold shutdown with only on-site operating personnel, independent of the fire brigade. Additional personnel that may be available off site cannot be credited. Therefore, the existing SSER statement must remain.

In the SSER, the staff stated that certain National Fire Protection Association (NFPA) code deviations had been approved. On the basis that no other deviations had been identified the issue of NFPA code conformance was closed. The licensee's July 31, 1987 comment was that deviations from applicable NFPA codes that are specified in the SRP acceptance criteria have been identified in accordance with 10 CFR 50.34(g). The staff re-affirms that only those code deviations that have been explicitly identified in the FSAR and evaluated in the SER and its supplements have been accepted. This is in accordance with the guidance issued in Generic Letter 86-10.

The licensee stated that there was no explicit reference in the SSER to two deviations from BTP CMEB 9.5-1 pertaining to the nature of the fire suppression system in the cable rooms and the extent of fire detection in containment. These features were evaluated during the fire protection site audit of January 27-30, 1987. The staff considered the existing fire hazards in these areas and concluded that the licensee's alternate fire protection configuration achieved an equivalent level of safety to that produced by conformance with the above guidelines. Therefore, the fire protection in these areas, as described in the FSAR thru Amendment No. 19, are considered acceptable deviations from BTP CMEB 9.5-1.

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Dated August 17, 1988