Enclosure 1

SUPPLEMENT 2 TO THE FIRE PROTECTION SAFETY EVALUATION REPORT

QUAD CITIES, UNITS 1 AND 2

DOCKET NOS. 50-254 AND 50-265

Water Suppression Systems, Section 3.1.5(d)

In the SER, it was our concern that a break in the 6-inch main or in the 10-inch main would cause the loss of all automatic fire suppression systems in the Unit 2 cable tunnel.

By letter dated January 26, 1981, the licensee provided additional information regarding the Unit 2 cable tunnel fire suppression system.

The Unit 2 cable tunnel fire suppression system is divided into three sections. Each section has two separate sprinkler systems, one for each division of cable. The six sprinkler sections are supplied from a single six-inch main. In the event of a break in the six-inch main, there are hose stations supplied from a different section of fire main which are capable of reaching any section of the tunnel. Therefore, the piping arrangement is such that no single failure would impair both the primary fire suppression system (i.e., the sprinklers) and backup fire suppression system (i.e., the hose stations). In addition, according to the licensee's safe shutdown analysis, the plant can achieve a safe shutdown condition assuming the loss of all cable in the Unit 2 cable tunnel.

Based on the licensee's verification that there are hose stations supplied from a different section of fire main which are capable of reaching any section of the tunnel, we conclude the fire water piping arrangement for the Unit 2 sprinkler system meets Section E.3(a) of Appendix A to BTP ASB 9.5-1 and, therefore, is acceptable.

Water Suppression Systems, Section 3.1.5(k)

In the SER, it was our concern that an adequate level of fire protection had not been provided for the oil storage area in the crib house. By letter dated January 26, 1981, the licensee provided additional information.

The licensee has installed a cabinet for flammable liquids in the crib house. The storage in the cabinet is limited by administrative controls to 25 gallons of oil and 10 gallons of grease. The amount of combustible liquid to be stored is below the maximum quantity recommended by Section 4-3.1 of NFPA 30, "Flammable and Combustible Liquids Code" and, therefore, is acceptable. There is no safe shutdown equipment in the crib house. However, the two diesel fire pumps are located in this area. The fire pumps are located 25 feet and 80 feet away from the cabinet. This distance should provide adequate spatial separation to preclude a fire in the cabinet from adversely affecting the fire pumps. In addition, each fire pump is protected by an automatic sprinkler system. The combination of controls to limit the quantity of oil,

the spatial separation, and sprinklers for the fire pumps are adequate to protect the fire pumps from a fire involving the oil storage cabinet.

Based on our evaluation, we conclude that the fire protection provisions for the oil storage cabinet in the crib house meets Section D.2(d) of Appendix A to BTP ASB 9.5-1 and, therefore, is acceptable.

Foam Suppression Systems, Section 3.1.6(b)

In the SER, it was our concern that the foam suppression systems which protect the MG sets were not adequate. We recommended that the licensee should modify the design of the foam suppression systems to provide 72 gallons of foam in storage for each system and to relocate the system control equipment so that it would not be exposed by a fire in the area protected. In addition, the feed for the foam system should be independent of the feed for the sprinkler system protecting the same area.

By letter dated January 26, 1980, the licensee provided additional information regarding the foam suppression systems.

Two 150 gallon foam storage tanks are provided to supply the foam suppression systems. One tank supplies the Unit 1 MG set foam systems, and the second tank supplies the Unit 2 MG set foam systems. Therefore, 75 gallons of foam can be available for each MG set. This quantity of foam meets the recommendations of Section 4023 of NFPA 16, "Foam Water Sprinkler and Spray Systems".

The placement of the foam system control panel will be relocated such that it will not be within the influence of an MG set fire. This meets the recommendations of Section 2111 of NFPA 16. The water supply to the Unit 1 foam system supplies the Unit 2 sprinkler system and the supply to the Unit 2 foam system supplies the Unit 1 sprinkler system. This arrangement results in water supplies to the foam and sprinkler systems which are independent of each other. Therefore, a single impairment would not result in the loss of both the foam and sprinkler system for a single MG set.

Based on our review, we conclude that the foam suppression systems which protect the MG sets meet Section E.3(f) of Appendix A to BTP ASB 9.5-1 and, therefore, are acceptable.

Smoke Detection System Tests, Section 3.2.1

In the SER, it was our concern that the smoke detectors may not respond to the products of combustion for the types of expected combustibles in the protected area.

By letter dated January 26, 1981, the licensee proposed to provide samples of the fixed and transient combustibles to the smoke detector supplier. The smoke detectors will be bench tested to verify adequate response to the products of combustion of these samples. One detector of each type installed will be subjected to the appropriate products of combustion for verification.

We find that with acceptable bench testing of smoke detectors, and considering that the smoke detection systems meet appropriate NFPA codes, the smoke detectors are acceptable.

Enclosure 2

FIRE PROTECTION REVIEW STATUS

QUAD CITIES UNITS 1 AND 2

Item	Description	Status
3.1.1(1)	Fire Detection Systems	C
3.1.5(d)	Water Suppression System	C
3.1.5(f)	Water Suppression System	C
3.1.5(j)	Water Suppression System	C
3.1.5(k)	Water Suppression System	C
3.1.6(b)	Foam Suppression System	C
3.2.1	Smoke Detection System Tests	C
3.2.2	RCIC Analysis-Safe Shutdown	UR

C - Closed
R - Requirement
UR - Under Review