ATTACHMENT 1

Technical Specification Changes

for

Zion Station

The following pages have been modified:

178, 194 and 195

8008200315

LIMITING CONDITION FOR OPERATION

3.8 7. Service Water system*

A. Three service water pumps 1A, 1B, 1C (2A, 2B, 2C) per unit shall be operable whenever the reactor is going from hot shutdown to hot standby.

*Until December 31, 1981, one service water pump may be out of service for maintenance purposes. During this period, the required number of operable pumps as stated in 3.8.7.A., 3.8.7.B., and 3.8.7.C may be reduced by one for a single unit provided the main 48-inch service water headers for each unit are cross-tied. While in the cross-tied mode, an operating service water pump from the other unit with independent standby AC and DC power supply may be used to fulfill the requirements of 3.8.7.

SURVEILLANCE REQUIREMENT

4.8 7. Service water system (Table 4.8-6)*

A. Surveillance and testing of the service water system shall be performed as follows:

1. The service water pumps shall be operated each month. Performance will be acceptable if the pump starts upon actuation, operates for at least four hours, and satisfies the cooling requirements necessary for the routine operation of the service water system.

2. The service water pump system power operated valves shall be stroked manually from the control room each month. Performance will be acceptable if valve motion is indicated upon actuation.

*Until December 31, 1981, the surveillance requirements of 4.8.7.C do not pertain to the service water pump out of service for maintenance purposes.

The availability of the systems is demonstrated by immediately demonstrating the operability of the components redundant to the failed one, as well as the operability of the inter-related systems and the standby AC and DC power supplies that feed them. The continued availability of these components during the repair period is demonstrated by repeating these tests daily.

Assuming a reactor has been operating at full rated power for at least 100 days, the magnitude of the decay heat decreases after initiating hot shutdown. Thus, the requirement for core cooling in case of a postulated loss-of-coolant accident while in the hot shutdown condition is significantly reduced below the requirements for a postulated loss-of-coolant accident during power operation. Putting a reactor in the hot shutdown condition significantly reduces the potential consequences of a loss-of-coolant accident, and also allows more free access to some of the engineered safeguards components in order to effect repairs

Failure to complete repairs within an additional 48 hours of going to the hot shutdown condition is considered indicative of a requirement for major maintenance and therefore in such a case, the reactor is to be put into the cold shutdown condition.

The limits for the boron injection tank and refueling water storage tank insure the required amount of water with the required boron concentration for injection into the primary coolant system following a loss-of-coolant accident and are based on the values used for the accident analysis. (4)

The limits for the accumulators, and their pressure and volume assure the required amount of water injection with the required boric acid concentration following a loss-of-coolant accident, and are based on the values used for the accident analyses. (4)

The five component cooling system pumps and three heat exchangers are located in the Auxiliary Building and are a shared system between Units I and II. The components are accessible for repair after a loss-of-coolant accident. During the recirculation phase following a loss-of-coolant accident on a unit, only one component cooling pump and heat exchanger is required for minimum safeguard of that unit. Therefore, a minimum requirement of 4 component cooling pumps and three heat exchangers for two operating units provides sufficient redundancy. (5)

A total of six service water pumps are installed; only one service water pump is required immediately following a postulated loss-of-coolant accident. (6) (see p. 195)

The hydrogen purge system is designed to purge combustible gases from the containment following a loss-of-coolant accident (7)(8). The containment hydrogen sampling system is used to determine the effectiveness of this system.

A hydrogen recombiner system is being installed to remove the hydrogen and oxygen gases that accumulate in the containment atmosphere following a loss-of-coolant accident.(9) The system operability requirement becomes effective following successful pre-operational testing. This equipment shall be installed by the first refueling outage on Unit 1, if delivery schedules permit.

The equipment used in evaluating the post loss of coolant accident condition is required to provide monitoring of the reactor, primary containment(10) and radiation effect to the environs, both on site and off site. The required equipment has been built and tested to meet the expected conditions where the conditions will be other than normal operating conditions.

Until December 31, 1981, one service water pump at a time may be taken out of service to perform maintenance on the associated circulating water pump. In order to work on a circulating water pump, an intake plenum must be drained. The intake plenum is a common reservoir for a service water pump and a circulating water pump. This leaves five service water pumps in service, which will provide sufficient coverage for any postulated loss of coolant accident coincident with a loss of offsite power and any other single failure of an active component. With this temporary specification, should a second service water pump become inoperable, it must be returned to operable status within seven (7) days or the unit will be brought to hot shutdown.

If during this seven (7) day period a third service water pump becomes inoperable, the unit will be brought to hot shutdown within four (4) hours unless one of the inoperable pumps are returned to operable status. The requirement for independent standby AC and DC power supplies for an operating service water pump from the other unit precludes the possibility of losing two service water pumps dedicated to the same unit because of the failure of a common power supply.

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(1) FSAR Chapter 9
(2) FSAR Section 6.2
(3) FSAR Section 6.2.3
(4) FSAR Section 14.3
(5) FSAR Section 9.3
(6) FSAR Section 9.6 and FSAR Answer to Question 9.1
(7) FSAR Section 14.3.6
(8) FSAR Answer to Question 9.9
(9) FSAR Section 6.8
(10) FSAR Section 7.5.3