

Attachment A

Revise the Technical Specifications as follows:

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REFUELING

Applicability

Applies to operating limitations during refueling operations.

Objective

To ensure that no incident could occur during refueling operations that would affect public health and safety.

Specification

3.8.1 During refueling operations the following conditions shall be satisfied.

- a. The equipment door, or a closure plate that restricts air flow from the containment, and at least one personnel door in the equipment door or closure plate and in the personnel air lock shall be properly closed. In addition, all automatic containment isolation valves shall be operable or at least one valve in each line shall be locked closed.
- b. Radiation levels in the containment shall be monitored continuously.
- c. Core subcritical neutron flux shall be continuously monitored by at least two source range neutron monitors, each with continuous visual indication in the control room and one with audible indication in the containment and control room available whenever core geometry is being changed. When core geometry is not being changed at

provided on the lifting hoist to prevent movement of more than one fuel assembly at a time. The spent fuel transfer mechanism can accommodate only one fuel assembly at a time. In addition interlocks on the auxiliary building crane will prevent the trolley from being moved over stored racks containing spent fuel.

The operability requirements for residual heat removal loops will ensure adequate heat removal while in the refueling mode. The requirement for 23 feet of water above the reactor vessel flange while handling fuel and fuel components in containment is consistent with the assumptions of the fuel handling accident analysis.

The analysis<sup>(4)</sup> for a fuel handling accident inside containment establishes acceptable offsite limiting doses following rupture of all rods of an assembly operated at peak power. No credit is taken for containment isolation or effluent filtration prior to release. Requiring closure of the containment openings and penetrations establishes additional margin for the fuel handling accident and establishes a seismic envelope to protect against seismic events during refueling.

#### References

- (1) FSAR - Section 9.5.2
- (2) Reload Transition Safety Report, Cycle 14
- (3) FSAR - Section 9.3.1
- (4) Updated Final Safety Analysis Report, Section 15.7



Handwritten marks and scribbles in the top right corner.

## Attachment B

The proposed Technical Specification change is being requested to improve the efficiency of refueling outage work and to improve personnel safety. The change is to allow use of a temporary closure plate in place of the equipment hatch or equipment door during refueling. At the time the plant was constructed, the magnitude and types of outage maintenance activities now being conducted inside containment were not anticipated. As a result, a need exists during outages for many temporary services inside containment to support plant modifications, inservice inspections, equipment maintenance and overhauls and significant steam generator work. The services required include electrical cables for communication, closed circuit TV, steam generator tube eddy current testing, steam generator sleeving and power for additional welding machines. Fluid lines are required for high pressure water lancing of the steam generators and for air supplies.

Current practice has been to run the temporary services through an open personnel door within the equipment door or to attach a special closure to the personnel door with appropriately sealed penetrations. The first option dictates that refueling and some maintenance work not be performed concurrently which lengthens the outage and increases the cost to the company and its customers. The second option reduces the containment egress paths to one, an undesirable situation for personnel safety. The preferred method for decreasing outage time and increasing personnel safety is to use a specially fabricated closure plate in place of the equipment door. The closure plate will have sealed penetrations for the temporary services and a personnel door that will provide emergency egress.

The containment equipment door is a massive hatch designed to withstand the design basis accident pressure. When unbolted from the containment building, it is moved away on special rails. Removal and reinstallation of the equipment door is more time consuming than will be removal and installation of the temporary plate. As a result, the temporary closure plate will also facilitate coordination of refueling operations with movement into containment of large pieces of equipment that will not fit through the personnel locks.

The current Technical Specifications require that the equipment door and at least one door in each personnel air lock be properly closed during refueling. This requirement has been imposed even though the analysis for a fuel handling accident inside containment takes no credit for containment isolation or filtration of effluents prior to release.

During refueling operations the reactor is cooled below 140°F, is depressurized and open to the containment and is flooded with additional water from the refueling water storage tank. Under these conditions there is no potential for a rapid release of energy to the containment which might cause an increase in

pressure. With no potential for a rapid release of energy, there is no need during refueling for closures designed to withstand accident pressure. The temporary closure will be seismically designed, but it will not be designed to withstand high pressure. The temporary closure plate will perform the required functions, i.e., provide additional margin for a fuel handling accident by restricting direct communication with the environment and provide a seismic envelope to restrict the potential escape of radioactivity resulting from seismic events during refueling.

USNRC Standard Technical Specifications for refueling operations (Section 3/4.9.4) require that the equipment door be held in place by a minimum of four bolts and that penetrations providing direct access from the containment atmosphere to the outside atmosphere be closed or capable of automatic closure. Clearly the intent is that direct air flow to the environment be restricted but that the containment need not be in a condition to mitigate design basis accidents. The proposed change will conform to this guidance.

In accordance with 10 CFR 50.91, the proposed change to the Technical Specifications has been evaluated against three criteria to determine if the operation of the facility in accordance with the proposed amendment would:

1. involve a significant increase in the probability or consequences of an accident previously evaluated; or
2. create the possibility of a new or different kind of accident from any accident previously evaluated; or
3. involve a significant reduction in a margin of safety.

The proposed change will not have an adverse impact as judged against these criteria.

The proposed Technical Specification change conforms to the intent of regulatory guidance and meets the Commission's example (vi) of amendments that do not involve a significant hazards consideration because the results of the change are within all acceptable criteria established by regulatory guidance. The proposed amendment does not involve any irreversible consequences.

Therefore, there is no undue risk to public health and safety and a finding of no significant hazards is warranted for the proposed Technical Specification change.



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