12.5S Operational Radiation Protection Program

Nuclear Energy Institute Report No. NEI 07-03A, "Generic FSAR Template Guidance for Radiation Protection Program Description" provides the Operational Radiation Protection Program for STP 3 & 4. This NEI template is incorporated by reference with the following site-specific supplements. The NEI 07-03A template material is shown in italics.

NEI report no. NEI 07-08, "Generic FSAR Template Guidance for Ensuring that Occupational Radiation Exposures are as Low as is Reasonably Achievable (ALARA)", provides additional operating policy and consideration guidance for developing and implementing an ALARA program. This template is incorporated by reference.

12.5S.1 Management Policy

(8) Establish an ALARA Committee with delegated authority from the Plant Manager that includes, at a minimum, the managers of Operations, Maintenance, Work Control, Engineering and Radiation Protection to help assure effective implementation of line organization responsibilities for maintaining worker doses ALARA.

12.5S.2.1 Plant Manager

(9) Establish an ALARA Committee with delegated authority from the Plant Manager that includes, at a minimum, the managers of Operations, Maintenance, Work Control, Engineering and Radiation Protection to help assure effective implementation of line organization responsibilities for maintaining worker doses ALARA.

12.5S.2.3 Radiation Protection Manager

(7) Participate as a member of the plant ALARA committee.

12.5S.2.4 Methods to Maintain Exposures ALARA

Refueling

After the reactor coolant system is depressurized, it is degassed and sampled to verify that the gaseous activity is low, prior to removing the reactor head. After flooding the refueling pool above the reactor, purification of the refueling pool water continues in order to maintain exposures from activity in the water ALARA. Movement of irradiated fuel assemblies is accomplished with the assembly maintained underwater. By following these procedures, the normal radiation level on the refueling bridge is expected to be less than 5 mrem/hr. The Radiation Work Permit (RWP) system is used to maintain positive radiological control over work in progress.

12.5S.4.4 Access Control

There are three Very High Radiation Areas in the plant: the Reactor Water Cleanup System (CUW) backwash tank room; the filter demineralizer room (both CUW and Fuel Pool Cooling and Cleanup); and the Spent Fuel Pool lower elevation. These areas are identified on the plant layout drawings in Section 12.3. Filter Demineralizer equipment is in shielded rooms accessible only through openings blocked by shield plugs. Removal of shield plugs requires the use of cranes. Use of the cranes is controlled by lock and key, with keys under the control of Health Physics. Postings indicate dose rates behind the shielding. Entry into these rooms is only authorized via specific Radiation Work Permit.~~Additional administrative controls are placed on entry into these locked areas, including access control, use of an RWP and additional monitoring.~~

Entry into the CUW backwash receiving tank room is through a locked door, with keys controlled by Health Physics. Entry is not anticipated, as no scheduled maintenance or surveillance is required. (See ABWR DCD, Tier 1, Table 3.2b, Ventilation and Airborne Monitoring ITAAC: Design Commitment 1, Acceptance Criterion c.) Entry into the CUW and Fuel Pool Cooling and Cleanup filter demineralizer room is anticipated once every three to five fuel cycles for replacement of filter septa. The Spent Fuel Pool lower elevation is inaccessible to personnel working above the surface due to the height of water covering spent fuel. Diving activities are controlled by Health Physics (HP) personnel using specific Radiation Work Permits (RWPs), constant HP monitoring, alarming dosimetry, and work processes governed by procedure.

12.5S.4.7 Dose Control

(2) *Radiation Protection will assure that procedures and methods for operation, maintenance, repair, surveillance, refueling, and other activities that may involve significant exposures are reviewed prior to initial use and periodically thereafter to assure measures are considered to minimize occupational and public radiation exposures.* Significant exposures are those that may result from activities that require entry into areas greater than 10 R/hr, or where an individual is likely to receive greater than 500 mrem during a single entry.