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# FPER

## FIRE PROTECTION EVALUATION REPORT

**DOCUMENT TYPE:** Administrative

**REVISION:** 1

**EFFECTIVE DATE:** August 17, 2001

**APPROVAL AUTHORITY:** Department Manager

**PROCEDURE OWNER (title):** Plant Manager

**OWNER GROUP:** Engineering

FOR INFORMATION ONLY

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### **5.1.5 Spatial Separation**

Redundant safe shutdown related equipment, components and systems are provided with adequate spatial separation or are separated by fire resistant barriers as described in the safe shutdown analysis according to the separation requirements of 10 CFR 50, Appendix R, Section III.G. Fire areas are bounded by 3-hour rated fire barriers, spatial separation, or other configurations considered to provide separation equivalent to fire rated barriers or adequate for the hazard in accordance with GL 86-10. Because of the heightened threat of fire posed by transient combustibles, certain sensitive areas have been identified, within which the storage of transient combustibles is excluded. Safe Shutdown areas, which are required to be maintained free of intervening combustibles, are controlled to prevent the installation of in-situ combustible materials.

### **5.1.6 Personnel Access and Egress Routes**

Plant access and egress routes are maintained free of obstacles to ensure escape routes, access routes for fire fighting, or access to areas containing equipment necessary for safe shutdown are available during a fire event. Fire exits are clearly marked. Availability of these routes is maintained by periodic tours and design controls.

Enclosed stairwells are enclosed with 2-hour rated walls and self-closing Class B fire doors. Elevator hoistways are constructed similar to stairwells except the sliding elevator doors are 1-1/2 hour rated. In addition, a number of open stairwells are provided throughout the plant. These stairwells open and closed, are designed and located to serve as functional personnel traffic routes, escape routes and access routes for fire fighting.

### **5.1.7 Construction Materials**

Interior walls and structural components are noncombustible steel, concrete, concrete unit masonry and metal studs. Thermal insulation, where used, is noncombustible glass fiber. Insulated panel walls where used are composed of a noncombustible core with asbestos cement facings. Radiation shielding consists primarily of concrete, concrete unit masonry and lead. Soundproofing, where utilized, is incorporated within noncombustible and insulating materials.

Interior finishes such as gypsum plaster, ceramic tile and acoustical ceiling materials are noncombustible. Epoxy coatings, alkyd and latex paints are used.

Typically building roofs consist of standard multi-ply, built-up roof designs. These designs employ several layers of saturated felts/fabrics, or mats between, which are alternate layers of bitumen. The roof design is built-up on a non-combustible steel or concrete deck. Roofing materials and designs installed at Point Beach comply with the pertinent Building Code-of-Record and insurance requirements.

Suspended ceilings and their supports are of noncombustible construction. Acoustical board lay-in units for the exposed systems and acoustical tile for the concealed systems are noncombustible mineral fiber with a flame spread rating of 25 or less. By design, concealed spaces are devoid of combustibles.