



General Electric Company
175 Curtner Avenue, San Jose, CA 95125

April 26, 1993

Docket No. STN 52-001

Chet Poslusny, Senior Project Manager
Standardization Project Directorate
Associate Directorate for Advanced Reactors
and License Renewal
Office of the Nuclear Reactor Regulation

Subject: Submittal Supporting Accelerated ABWR Review Schedule - **Modification to
DFSER Chapter 8 Response**

Dear Chet:

Enclosed is a modification to Page 15 of Attachment 4 to my March 31, 1993 letter.

Please provide a copy of this transmittal to John Knox and Dale Thacher.

Sincerely,

Jack Fox
Advanced Reactor Programs

cc: Norman Fletcher (DOE)
Bob Strong (GE)

the following criteria, so far as it applies to the non-Class 1E equipment. Any exceptions or clarifications are so noted.

8.2.2.1 General Design Criteria

(1) GDC 5 and RG 1.81 - Sharing of Structures, Systems and Components;

The ABWR is a single unit plant design. Therefore, these criteria are not applicable.

(2) GDC 17 - Electric Power Systems;

Each circuit of the preferred power supply is designed to provide sufficient capacity and capability to power equipment required to ensure that: 1) Fuel design limits and design conditions of the reactor coolant pressure boundary will not be exceeded as a result of anticipated operational occurrences, and 2) In the event of plant design-basis accidents, the core will be cooled, and containment integrity and other vital functions will be maintained.

As shown in Figure 8.3-1, each of the Class 1E divisional 6.9 kV M/C buses can receive power from multiple sources. There are separate utility feeds from the station transmission system (via the main power transformer and the reserve auxiliary transformer). The unit auxiliary transformer output power feeds and the reserve auxiliary transformer output power feeds are routed by two completely separate paths through the yard, the turbine building, control building and reactor building to their destinations in the emergency electrical rooms. Although these preferred power sources are non-Class 1E, such separation assures the physical independence requirements of GDC 17 are preserved. and provisions

In addition,

The transformers are provided with separate oil collection pits and drains to a safe disposal area. Separation of offsite equipment is discussed in 8.2.1.3. The plant fire protection system is discussed in 9.5.1.

(3) GDC 18 - Inspection and Testing of Electrical Power Systems;

All equipment can be tested, as necessary, to assure continued and safe operation of the plant. For equipment which cannot be tested during plant operation, the reliability will be such that testing can be performed during plant shutdown (for example, the main generator circuit breaker). See 8.2.4 for COL license information.

Isolated and non-segregated phase bus ducts provide access for inspection and maintenance. They also have provisions for excluding debris and fluids, and for draining condensates.

The ABWR is designed to provide testing and/or verification capability as described above, including the items identified in 8.2.4.1).

(4) RG's 1.32, 1.47, and BTP ICSB 21;

These distribution load groups are non-Class 1E and non-safety related. Therefore, this criteria is not applicable.