

18C Operator Interface Equipment Characterization

The information in this appendix of the reference ABWR DCD, including all subsections and figures, is incorporated by reference with the following departures and a supplement.

STD DEP T1 3.4-1 (Figure 18C-8)

STD DEP Admin

18C.2 Main Control Room Configuration

STD DEP T1 3.4-1

STD DEP Admin

Figure 18C-45 shows a larger, more detailed version of the schematic shown in Figure 18C-2. This detail includes the identification and arrangement of the equipment installed on the main control console. This equipment includes computer-driven CRTs, flat panel display devices, panels of dedicated function switches and analog displays for selected equipment (e.g., Standby Liquid Control System and the main generator). The flat panel display devices are driven by dedicated microprocessors and, thus, are independent of the plant process computer functions.

18C.3 Large Display Panel Configuration

STD DEP T1 3.4-1

The fixed-position displays occupy the central portion of the large display panel and is discussed in Subsection 18.4.2.8. The fixed-position displays are driven by controllers that are independent of the plant process computer functions so that the fixed-position displays will continue to function normally in the event of plant process computer functions failure. Figure 18C-7 illustrates an implementation of a fixed-position display design.

18C.4 Systems Integration

STD DEP T1 3.4-1

A characterization of the plant instrumentation and control systems architecture which supports the control room operator interface is illustrated in Figure 18C-8. As shown in Figure 18C-8, display and control capability for both safety-related and non-safety-related systems are driven by microprocessors which are independent of the redundant plant process computer functions. This assures the ability to safely shut down the plant in the unlikely event of computer failure. In the case of the safety-related systems, the microprocessors are divisionally dedicated and are each electrically isolated from the rest of the system.

The information in this subsection of the reference ABWR DCD is supplemented with the following information.

The instrumentation and control systems architecture is not identical to the conceptual design described in Appendix 18C. The changes in the next paragraph reflect the architecture and configuration.

~~The plant wide, fiber optic Essential Multiplexing System (EMUX) provides the communications network for the system. This multiplexing system is actually a series of data acquisition and control networks, separate networks being provided for safety related and non safety related plant systems.~~ The data communication function includes both safety-related and non-safety-related communication performed by separate networks as described in Section 7.9S.

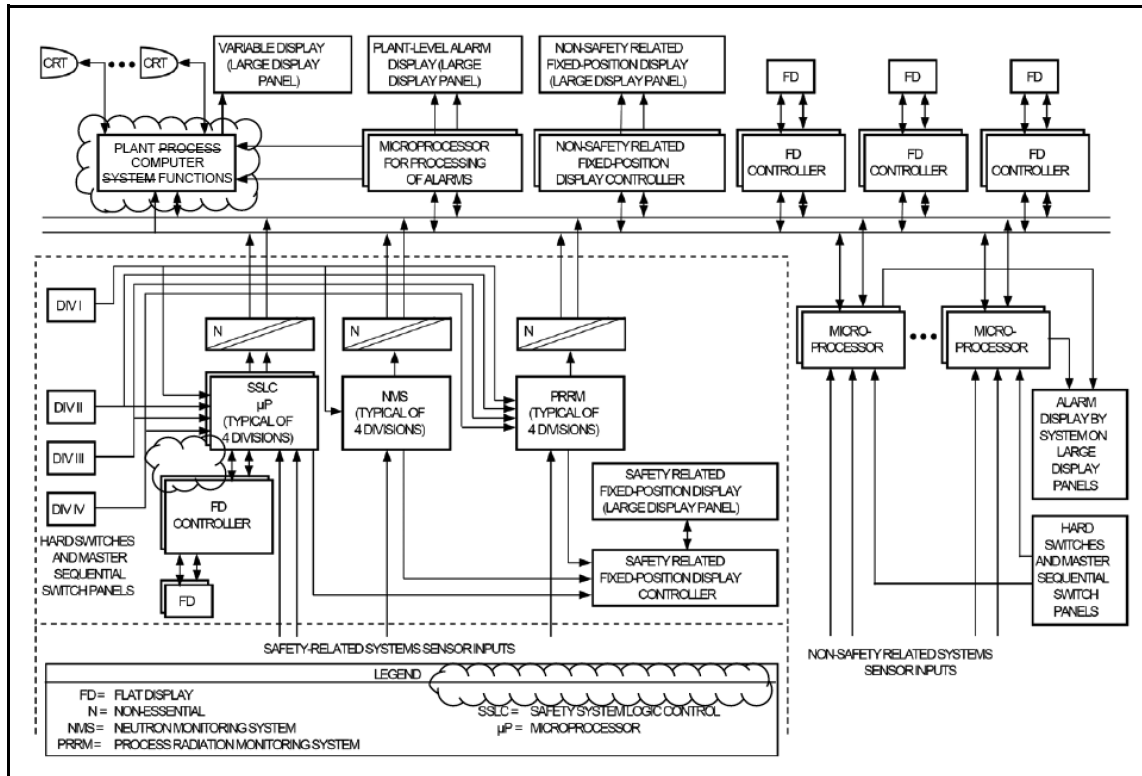


Figure 18C-8 Overall Configuration of Operator Interface System

