

## 1.0 USE AND APPLICATION

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The information in this section of the reference ABWR DCD, including all subsections, is incorporated by reference with the following departures.

STD DEP T1 3.4-1  
STD DEP 16.3-100

### 1.1 Definitions

#### CHANNEL FUNCTIONAL TEST

A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY, including required alarm, interlock, display, and trip functions, and channel failure trips. The CHANNEL FUNCTIONAL TEST for those instruments controlled by TS 5.5.2.11, Setpoint Control Program, shall include adjustments, as necessary, such that the setpoints are within the necessary range and accuracy. The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested.

#### DIVISION FUNCTIONAL TEST

The injection of simulated or actual signals into a division as close to the sensors as practicable to verify OPERABILITY of SENSOR CHANNELS and LOGIC CHANNELS in that division. The DIVISION FUNCTIONAL TEST for those instruments controlled by TS 5.5.2.11, Setpoint Control Program, shall include adjustments, as necessary, such that the setpoints are within the necessary range and accuracy. The DIVISION FUNCTIONAL TEST may be performed by means of a series of sequential or overlapping steps. The test shall comprise all the equipment from the ~~DTM~~ DTF inputs to LOGIC CHANNEL outputs. This test shall also verify that the inputs to the ~~DTMs~~ DTFs are the same as the information presented at the control room indicators.

## LOGIC CHANNEL

*A LOGIC CHANNEL is defined as a set of interconnecting hardware and software components that process the inputs to produce an identifiable RPS trip signal or ESF actuation signal within a division. For the RPS, this includes the trip signal's associated ~~FLUTLE~~ 2-out-of-4 voters, ~~FLUTLE~~ bistable functions, operator controls, interlocks, data transmission, alarms, displays, division-of-sensors bypass, transmission lines out to the OLU inputs. Each ESF function will ~~have two ESF LOGIC CHANNELS to include one of the~~ ESF actuation signal's associated ~~SLU DLC~~ 2-out-of-4 voters, ~~SLU DLC~~ bistable functions, operator controls, interlocks, data transmission, alarms, displays, division-of-sensors bypass, ~~EMSDCE~~, and, as applicable, transmission lines out to the input of the 2-out-of-2 voters. The ESF actuation signal includes the system actuation signal and all its associated device actuation signals generated in the ~~SLU DLC~~ out to the 2-out-of-2 voter, if present.*

## OUTPUT CHANNEL

*An OUTPUT CHANNEL is defined as a set of interconnected components that process outputs from associated LOGIC CHANNELS to produce an identifiable signal that deenergizes scram solenoids, deenergizes MSIV Isolation solenoids, or energizes ESF device actuators within a division. For the RPS, this includes the signal's associated OLU, transmission lines, manual divisional trip and reset switches, trip logic output bypass switch, parallel load driver test switch, and scram pilot valve solenoid load drivers. For the MSIVs, this includes the signal's associated OLU, data transmission, manual divisional isolation and reset switches, trip logic output bypass switch, and MSIV isolation pilot valve solenoid load drivers. For the ESF, this includes the signal's associated DLC or 2-out-of-2 voter, as applicable, ESF Output Channel Bypass switch, and data transmission out to the ESF device actuator.*

## SENSOR CHANNEL

*A SENSOR CHANNEL is defined as a set of interconnected hardware and software components that process an identifiable sensor signal within a division. This includes the sensor, data acquisition, signal conditioning, data transmission, alarms, displays, and all transmission lines in the division and between divisions associated with the sensor signal up to an input of a 2-out-of-4 voter or an input of a bistable function within the ~~FLUTLE~~ or ~~SLU DLC~~.*