

1.1. Definitions

COMPREHENSIVE FUNCTIONAL TEST (continued)

A CoFT also simulates power failures, measures CPU and network performance, runs microprocessor- and application-specific diagnostics, tests input out-of-range conditions, and tests analog inputs to verify OPERABILITY of the SSLC electronics, including alarms and displays.

CORE ALTERATION

CORE ALTERATION shall be the movement of any fuel, sources, reactivity control components, or other components affecting reactivity within the reactor vessel with the vessel head removed and fuel in the vessel. Movement of startup range neutron monitors, local power range monitors, traversing incore probes, or special movable detectors (including undervessel replacement) is not considered a CORE ALTERATION. In addition, control rod movement with other than the normal control rod drive is not considered a CORE ALTERATION provided there are no fuel assemblies in the associated core cell. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

CORE OPERATING LIMITS REPORT (COLR)

The COLR is the unit specific document that provides cycle specific parameter limits for the current reload cycle. These cycle specific limits shall be determined for each reload cycle in accordance with Specification [5.x] Plant operation within these limits is addressed in individual Specifications.

DIVISION FUNCTIONAL TEST

The injection of simulated or actual signal 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 may be performed by means of a series of sequential or overlapping steps. ~~As a~~ ^{minimum} the test shall comprise all the equipment from the DTM inputs to LOGIC CHANNEL outputs. This test shall also verify that the inputs to the DTMs are the same as the information presented at the control room indicators.

To be performed quarterly.

(continued)

1.1. Definitions

LEAKAGE

LEAKAGE shall be:

a. Identified LEAKAGE

1. LEAKAGE into the drywell such as that from pump seals or valve packing, that is captured and conducted to a sump or collecting tank; or
2. LEAKAGE into the drywell atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be pressure boundary LEAKAGE;

b. Unidentified LEAKAGE

All LEAKAGE into the drywell that is not identified LEAKAGE;

c. Total LEAKAGE

Sum of the identified and unidentified LEAKAGE;

d. Pressure Boundary LEAKAGE

LEAKAGE through a nonisolable fault in a Reactor Coolant System (RCS) component body, pipe wall, or vessel wall.

LINEAR HEAT GENERATION RATE (LHGR)

The LHGR shall be the heat generation rate per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length.

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 TLU 2-out-of-4 voters, TLU bistable functions, operator controls, interlocks, data transmission, software, alarms, displays, division-of-sensors bypass, transmission lines out

Not necessary to mention software explicitly since the functions listed are performed in software.

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1.1. Definitions

LOGIC CHANNEL (continued)

to the OLU inputs, and transmission lines out to other division TLU inputs. Each ESF function will have two ESF LOGIC CHANNELs to include one of the ESF actuation signal's associated SLU 2-out-of-4 voters, SLU bistable functions, operator controls, interlocks, data transmission, software, alarms, displays, division-of-sensors bypass, EMS, and transmission lines out to the input of the 2-out-of-2 voters. The ESF actuation signal includes the system actuation signal generated in the SLU and all its associated device actuation signals out to the 2-out-of-2 voter.

LOGIC SYSTEM FUNCTIONAL TEST

A LOGIC SYSTEM FUNCTIONAL TEST shall be a test of all logic components (i.e., all relays and contacts, trip units, solid state logic elements, etc.) of a logic circuit, from as close to the sensor as practicable up to, but not including, the actuated device, to verify OPERABILITY. The LOGIC SYSTEM FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total system steps so that the entire logic system is tested.

MINIMUM CRITICAL POWER RATIO (MCPR)

The MCPR shall be the smallest critical power ratio (CPR) that exists in the core. The CPR is that power in the assembly that is calculated by application of the appropriate correlation(s) to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.

MODE

A MODE shall correspond to any one inclusive combination of mode switch position, average reactor coolant temperature, and reactor vessel head closure bolt tensioning specified in Table 1.1-1 with fuel in the reactor vessel.

OPERABLE - OPERABILITY

A system, subsystem, train, component, or device shall be OPERABLE when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, displays, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the

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1.1 Definitions (continued)

OPERABLE-OPERABILITY
(continued)

system, subsystem, train, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).

OUTPUT CHANNEL

An OUTPUT CHANNEL is defined as a set of interconnected components that process the inputs 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, and scram pilot valve solenoid load drivers. For the MSIVs, this includes the signal's associated OLU, transmission lines, 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 2-out-of-2 voter, ESF Output Channel Bypass switch, transmission lines out to the ESF device actuator. and

parallel
load
driver
test
switches

OUTPUT CHANNEL
FUNCTIONAL TEST

An OUTPUT CHANNEL FUNCTIONAL TEST is the injection of simulated or actual signals into the OUTPUT CHANNEL to verify OPERABILITY.

PHYSICS TESTS

PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation. These tests are:

- a. Described in Chapter 14, initial Test Program of the SSAR;
- b. Authorized under the provisions of 10 CFR 50.59; or
- c. Otherwise approved by the Nuclear Regulatory Commission.

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1.1. Definitions (continued)

PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)

The PTLR is the unit specific document that provides the reactor vessel pressure and temperature limits, including heatup and cooldown rates, for the current reactor vessel fluence period. These pressure and temperature limits shall be determined for each fluence period in accordance with Specification [5.x] Plant operation within these operating limits is addressed in LCO 3.4.8, "RCS Pressure and Temperature (P/T) Limits."

RATED THERMAL POWER (RTP)

RTP shall be a total reactor core heat transfer rate to the reactor coolant of [3926] MWt.

REACTOR PUMP TRIP (RPT) SYSTEM RESPONSE TIME

The RPT SYSTEM RESPONSE TIME shall be that time interval from initial signal generation by the associated turbine stop valve limit switch or from when the turbine control valve hydraulic oil control oil pressure drops below the pressure switch setpoint trip of the inverters of the adjustable speed drives associated with the reactor internal pumps which are being tripped. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured.

REACTOR PROTECTION SYSTEM (RPS) RESPONSE TIME

The RPS RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its RPS trip setpoint at the channel sensor until de-energization of the scram pilot valve solenoids. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured.

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, software, 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 TLU or SLU.

Comment:
"Software" is implied by the functions listed. Software is used to design the functions, but they are implemented in hardware-based firmware.

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