

1.0 DEFINITIONS

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The succeeding frequently used terms are explicitly defined so that a uniform interpretation of the specifications may be achieved.

- A. Reportable Occurrence - The equivalent of a reportable event which shall be any of the conditions specified in Section 50.73 to 10CFR Part 50.
- B. Alteration of the Reactor Core - The act of moving any component affecting reactivity within the reactor vessel in the region above the core support plate, below the upper grid and within the shroud. Normal movement of control rods or neutron detectors, or the replacement of neutron detectors is not defined as a core alteration.
- C. Hot Standby - Hot standby means operation with the reactor critical and the main steam line isolation valves closed.
- D. Immediate - Immediate means that the required action will be initiated as soon as practicable considering the safe operation of the unit and the importance of the required action.
- E. Instrument Calibration - An instrument calibration means the adjustment of an instrument signal output so that it corresponds, within acceptable range and accuracy, to a known value(s) of the parameter which the instrument monitors. Calibration shall encompass the entire instrument including actuation, alarm, or trip. Response time as specified is not part of the routine instrument calibration but will be checked once per operating cycle.
- F. Instrument Check - An instrument check is qualitative determination of acceptable operability by observation of instrument behavior during operation. This determination shall include, where possible, comparison of the instrument with other independent instruments measuring the same variable.
- G. Instrument Functional Test - An instrument functional test shall be:
  - 1. Analog channels - the injection of a signal into the channel as close to the sensor as practicable to verify operability including alarm and/or trip functions.
  - 2. Bistable channels - the injection of a signal into the sensor to verify the operability including alarm and/or trip functions.
- H. Logic System Functional Test - A logic system functional test shall be a test of all logic components required for operability 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.

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V. Shutdown - The reactor is in a shutdown condition when the reactor mode switch is in the shutdown mode position and no core alterations are being performed. When the mode switch is placed in the shutdown position a reactor scram is initiated, power to the control rod drives is removed, and the reactor protection system trip systems are de-energized.

1. Hot Shutdown means conditions as above with reactor coolant temperature greater than 212°F.
2. Cold Shutdown means conditions as above with reactor coolant temperature equal to or less than 212°F.
3. Shutdown means conditions as above such that the effective multiplication factor ( $K_{eff}$ ) of the core shall be less than 0.99.

W. Deleted

X. Transition Boiling - Transition boiling means the boiling regime between nucleate and film boiling. Transition boiling is the regime in which both nucleate and film boiling occur intermittently with neither type being completely stable.

Y. Surveillance Frequency - Unless otherwise stated in these specifications, periodic surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus 25%. The operating cycle interval is considered to be 18 months and the tolerance stated above is applicable.

If it is discovered that a surveillance was not performed within its specified frequency, declaring applicable Limiting Conditions for Operation (LCOs) not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is less. This delay period is permitted to allow performance of the surveillance.

If the surveillance is not performed within the delay period, applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

When the surveillance is performed within the delay period and the surveillance is not met (i.e., acceptance criteria are not satisfied), applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

BASES:4.2 PROTECTIVE INSTRUMENTATION (Cont'd)

Since logic circuit tests may result in the actuation of plant equipment, testing of this nature is generally performed during a refueling outage. In this way, the testing of equipment should not jeopardize plant operation.

These surveillance requirements provide a periodic testing program for protective instrumentation to demonstrate that systems and components function satisfactorily and include schedules for performing functional tests, calibrations, and logic system functional tests. The testing of a subsystem includes a functional test of each relay wherever practicable. The testing of each relay includes all circuitry necessary to make the relay operate, and also the proper functioning of the relay contacts. Testing of the automatic initiation inhibit switches verifies the proper operability of the switches and relay contacts. Functional testing of the inaccessible temperature switches associated with the isolation systems is accomplished remotely by application of a heat source to individual switches.

All subsystems are functionally tested, calibrated, and operated in their entirety.

A channel functional test is performed for the Reactor Mode Switch - Shutdown Position function to ensure that the entire channel will perform the intended function. The surveillance is only required to be performed once per operating cycle during refueling. The Refueling Outage frequency is based on the need to perform this surveillance under the conditions that apply during a plant outage. Operating experience has shown that this surveillance frequency is adequate to ensure functional operability. Note 12 of Table 4.2.5 specifies that if the surveillance frequency of every Refueling Outage is not met, functional testing of the Reactor Mode Switch - Shutdown Position function shall be initiated within 1 hour after the reactor mode switch is placed in the Shutdown position for the purpose of commencing a scheduled Refueling Outage. This allows entry into the Shutdown mode when the surveillance requirement is not met.

### 3.5 LIMITING CONDITION FOR OPERATION

due to malfunction of the electrical portion of the valve when the reactor is pressurized above 150 psig with irradiated fuel in the reactor vessel, continued reactor operation is permissible only during the succeeding seven days unless such a valve is sooner made operable, provided that during such seven days both the remaining Automatic Relief System valves and the HPCI System are operable.

3. If the requirements of Specification 3.5.F cannot be met, an orderly shutdown shall be initiated and the reactor pressure shall be reduced to  $\leq 150$  psig within 24 hours.

#### G. Reactor Core Isolation Cooling System (RCIC)

1. Except as specified in Specification 3.5.G.2 below, the RCIC System shall be operable whenever the reactor steam pressure is greater than 150 psig and irradiated fuel is in the reactor vessel.
2. From and after the date that the RCIC System is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding 14 days unless such system is sooner made operable, provided that:
  - a. The HPCI System is immediately verified by administrative means to be operable, and

### 4.5 SURVEILLANCE REQUIREMENT

#### G. Reactor Core Isolation Cooling System (RCIC)

Surveillance of the RCIC System shall be performed as follows:

1. Testing
  - a. A simulated automatic actuation test of the RCIC System shall be performed during each refueling outage.
  - b. Operability testing of the pump and valves shall be in accordance with Specification 4.6.E.
  - c. Upon reactor startup, RCIC operability testing shall be performed as required by Specification 4.6.E within 24 hours after exceeding 150 psig reactor steam pressure.