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TABLE 1.2

OPERATIONAL CONDITIONS

<u>CONDITION</u>	<u>MODE SWITCH POSITION</u>	<u>AVERAGE REACTOR COOLANT TEMPERATURE</u>
1. POWER OPERATION	Run	Any temperature
2. STARTUP	Startup/Hot Standby	Any temperature
3. HOT SHUTDOWN	Shutdown [#] ***	> 200°F
4. COLD SHUTDOWN	Shutdown ^{##} ***	≤ 200°F ⁺
5. REFUELING*	Shutdown [*] ** [#] or Refuel ^{**} #	≤ 140°F

[#]The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified member of the unit technical staff.

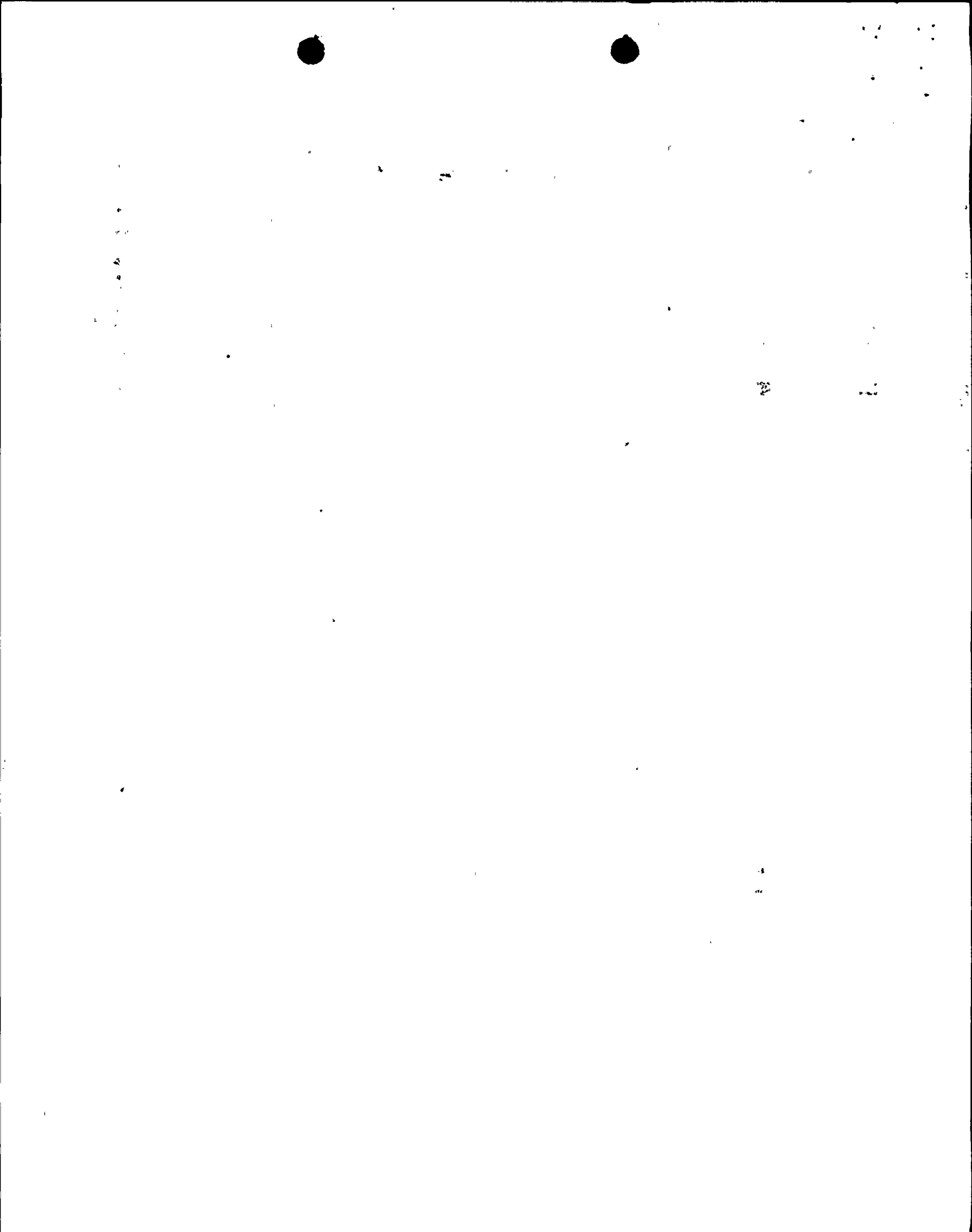
^{##}The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.9.10.1.

*Fuel in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

**See Special Test Exceptions 3.10.1 and 3.10.3.

***The reactor mode switch may be placed in the Refuel position while a single control rod is being recoupled provided that the one-rod-out interlock is OPERABLE.

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⁺ See Special Test Exception 3.10.6



SPECIAL TEST EXCEPTION

3/4.10.6 INSERVICE LEAK AND HYDROSTATIC TESTING

LIMITING CONDITIONS FOR OPERATION

3.10.6 When conducting inservice leak or hydrostatic testing, the average reactor coolant temperature specified in Table 1.2 for OPERATIONAL CONDITION 4 may be increased to 212°F, and operation considered not to be in OPERATIONAL CONDITION 3, to allow performance of the inservice leak or hydrostatic test provided the following OPERATIONAL CONDITION 3 Specifications are met:

- a. 3.3.2, "ISOLATION ACTUATION INSTRUMENTATION," Functions 2.a, 2.b, 2.c, 2.d, 2.e, and 2.f of Table 3.3.2-1;
- b. 3.6.5.1, "SECONDARY CONTAINMENT INTEGRITY";
- c. 3.6.5.2, "SECONDARY CONTAINMENT AUTOMATIC ISOLATION DAMPERS";
- d. 3.6.5.3, "STANDBY GAS TREATMENT SYSTEM"

APPLICABILITY: OPERATIONAL CONDITION 4, with average reactor coolant temperature > 200°F and ≤ 212°F.

ACTION:

With the requirements of the above specifications not satisfied, immediately enter the applicable action of the affected specification or immediately suspend activities that could increase the average reactor coolant temperature or pressure and reduce the average reactor coolant to ≤ 200° F within 24 hours.

SURVEILLANCE REQUIREMENTS

4.10.6 Verify applicable OPERATIONAL CONDITION 3 surveillances for specification listed in 3.10.6 are met.

EMERGENCY CORE COOLING SYSTEM

BASES

ECCS-OPERATING and SHUTDOWN (Continued)

With the HPCI system inoperable, adequate core cooling is assured by the OPERABILITY of the redundant and diversified automatic depressurization system and both the CS and LPCI systems. In addition, the reactor core isolation cooling (RCIC) system, a system for which no credit is taken in the safety analysis, will automatically provide makeup at reactor operating pressures on a reactor low water level condition. The HPCI out-of-service period of 14 days is based on the demonstrated OPERABILITY of redundant and diversified low pressure core cooling systems and the RCIC system.

The surveillance requirements provide adequate assurance that the HPCI system will be OPERABLE when required. Although all active components are testable and full flow can be demonstrated by recirculation through a test loop during reactor operation, a complete functional test with reactor vessel injection requires reactor shutdown. The pump discharge piping is maintained full to prevent water hammer damage and to provide cooling at the earliest moment.

Upon failure of the HPCI system to function properly after a small break loss-of-coolant accident, the automatic depressurization system (ADS) automatically causes selected safety-relief valves to open, depressurizing the reactor so that flow from the low pressure core cooling systems can enter the core in time to limit fuel cladding temperature to less than 2200°F. ADS is conservatively required to be OPERABLE whenever reactor vessel pressure exceeds 100 psig. This pressure is substantially below that for which the low pressure core cooling systems can provide adequate core cooling for events requiring ADS.

ADS automatically controls six selected safety-relief valves although the safety analysis only takes credit for five valves. It is therefore appropriate to permit one valve to be out-of-service for up to 14 days without materially reducing system reliability.

3/4.5.3 SUPPRESSION CHAMBER

The suppression chamber is required to be OPERABLE as part of the ECCS to ensure that a sufficient supply of water is available to the HPCI, CSS and LPCI systems in the event of a LOCA. This limit on suppression chamber minimum water volume ensures that sufficient water is available to permit recirculation cooling flow to the core. The OPERABILITY of the suppression chamber in OPERATIONAL CONDITIONS 1, 2 or 3 is also required by Specification 3.6.2.1.

Repair work might require making the suppression chamber inoperable. This specification will permit those repairs to be made and at the same time give assurance that the irradiated fuel has an adequate cooling water supply when the suppression chamber must be made inoperable, including draining, in OPERATIONAL CONDITION 4 or 5.

In OPERATIONAL CONDITION 4 and 5 the suppression chamber minimum required water volume is reduced because the reactor coolant is maintained at or below 200°F. Since pressure suppression is not required below 212°F, the minimum water volume is based on NPSH, recirculation volume, vortex prevention plus a safety margin for conservatism.

+ See Special Test Exception 3.10.6

3/4.10 SPECIAL TEST EXCEPTIONS

BASES

3/4.10.1 PRIMARY CONTAINMENT INTEGRITY

The requirement for PRIMARY CONTAINMENT INTEGRITY is not applicable during the period when open vessel tests are being performed during the low power PHYSICS TESTS.

3/4.10.2 ROD SEQUENCE CONTROL SYSTEM

In order to perform the tests required in the technical specifications it is necessary to bypass the sequence restraints on control rod movement. The additional surveillance requirements ensure that the specifications on heat generation rates and shutdown margin requirements are not exceeded during the period when these tests are being performed and that individual rod worths do not exceed the values assumed in the safety analysis.

3/4.10.3 SHUTDOWN MARGIN DEMONSTRATIONS

Performance of shutdown margin demonstrations with the vessel head removed requires additional restrictions in order to ensure that criticality does not occur. These additional restrictions are specified in this LCO.

3/4.10.4 RECIRCULATION LOOPS

This special test exception permits reactor criticality under no flow conditions and is required to perform certain startup and PHYSICS TESTS while at low THERMAL POWER levels.

3/4.10.5 TRAINING STARTUPS

This special test exception permits training startups to be performed with the reactor vessel depressurized at low THERMAL POWER and temperature while controlling RCS temperature with one RHR subsystem aligned in the shutdown cooling mode in order to minimize contaminated water discharge to the radioactive waste disposal system.

Insert A

3/4.10.6 INSERVICE LEAK AND HYDROSTATIC TESTING

This special test exception allows reactor vessel inservice leak and hydrostatic testing to be performed in OPERATIONAL CONDITION 4 with reactor coolant temperatures $\leq 212^{\circ}\text{F}$. The additionally imposed OPERATIONAL CONDITION 3 requirement for SECONDARY CONTAINMENT INTEGRITY provides conservatism in the response of the unit to an operational event. This allows flexibility since temperatures approach 200°F during the testing and can drift higher because of decay and mechanical heat. The reactor coolant temperature is controlled to insure that it does not exceed 212°F .

Since the reactor coolant temperature is at or below 212°F , minimum water level in the suppression chamber in OPERATIONAL CONDITION 4 is sufficient to provide pressure suppression and adequate NPSH for ECCS pump operation. This condition is bounded by the analysis provided in support of EO-100-103 for pressure suppression.

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#The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified member of the unit technical staff.

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Insert A



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