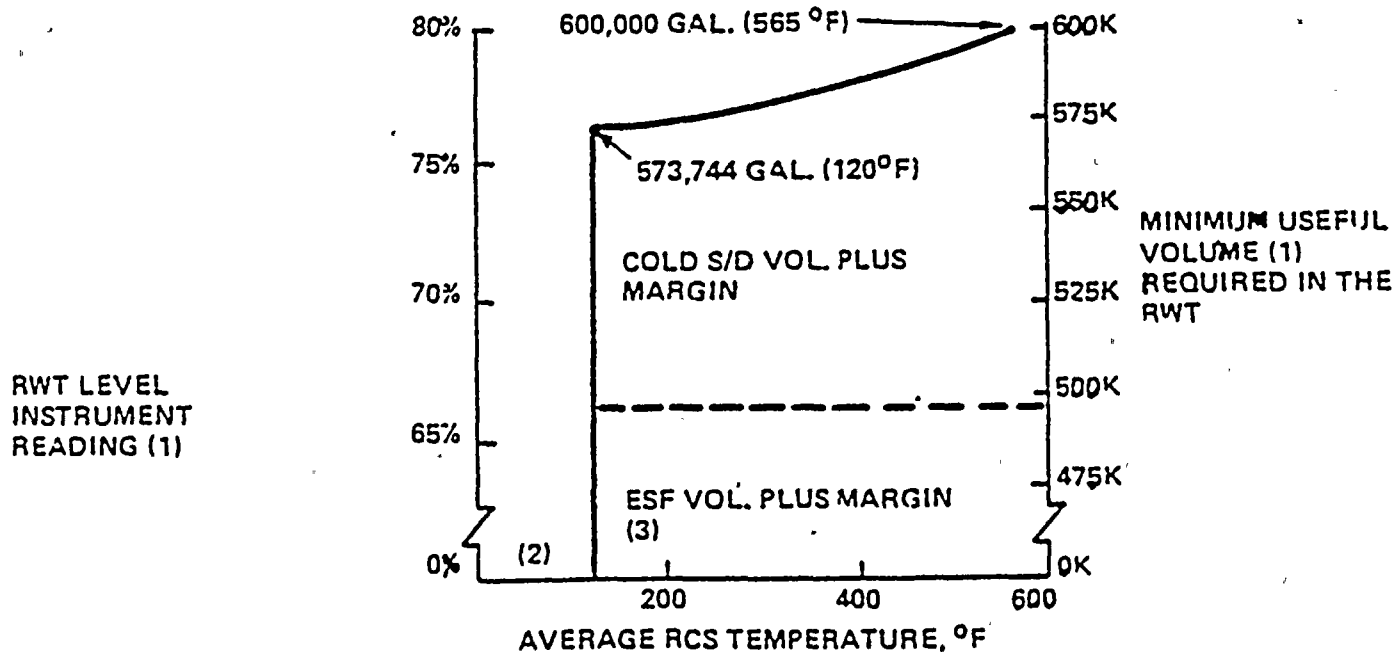
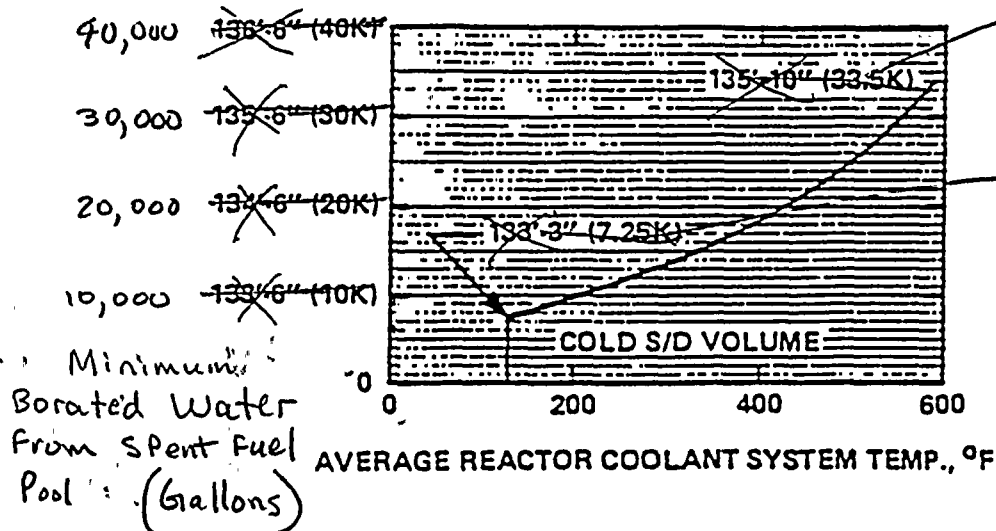


# FOR INFORMATION ONLY



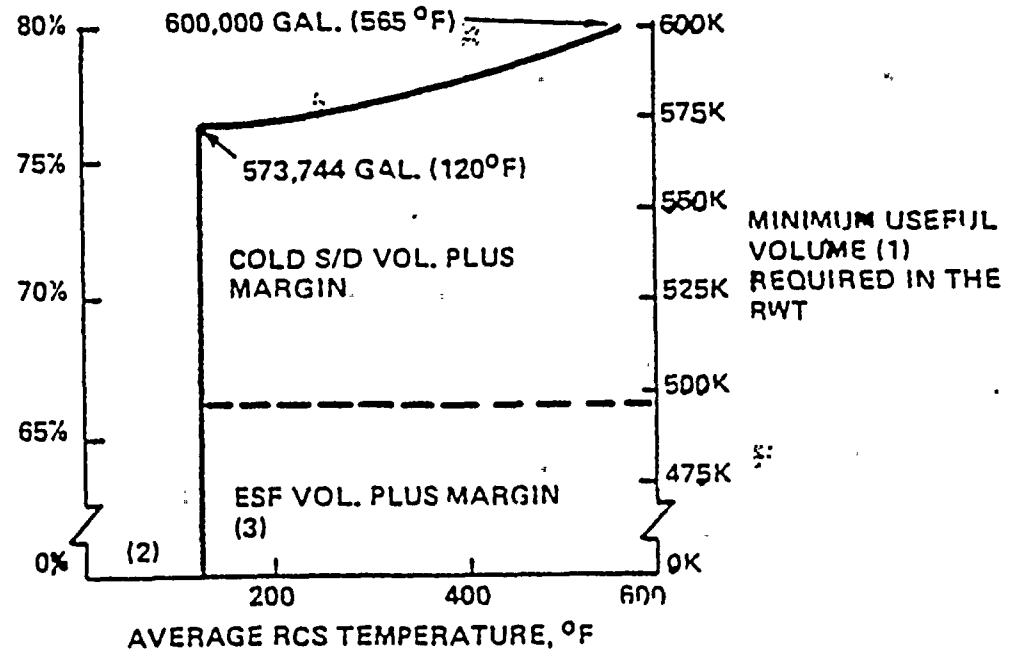
- (1) THE TANK LEVEL AND VOLUME SHOWN ARE THE USEFUL LEVEL AND VOLUME ABOVE THAT IN THE TANK WHICH IS REQUIRED FOR VORTEX CONSIDERATIONS
- (2) DURING MODE 5 AND 6 ONE OF THESE BORATED SOURCES SHALL CONTAIN A MINIMUM OF 33,500 GALLONS
- (3) THIS VOLUME IS NOT REQUIRED DURING MODE 6

FIGURE 3.1-1  
MINIMUM BORATED WATER VOLUMES

# FOR INFORMATION ONLY

Minimum Borated  
Water from  
Spent Fuel Pool  
(Gallons)

AVERAGE REACTOR COOLANT SYSTEM TEMP., °F



- (1) The tank level and volume shown are the useful level and volume above that in the tank which is required for vortex considerations
- (2) During Mode 5 and 6, one of these borated sources shall contain a minimum of 33,500 gallons
- (3) This volume is not required during Mode 6.

FIGURE 3.1-1  
MINIMUM BORATED WATER VOLUMES

2000

2000

## CONTAINMENT SYSTEMS

### 3/4.6.3 CONTAINMENT ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE.\*

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

1. With one or more of the isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:
  - a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
  - b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position\*\*, or
  - c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange\*\*; or
  - d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - e. The provisions of Specification 3.0.4 do not apply.

#### SURVEILLANCE REQUIREMENTS

4.6.3.1 Containment Each isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control, or power circuit.

4.6.3.2 Each isolation valve used in containment isolation, containment spray, or containment purge shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

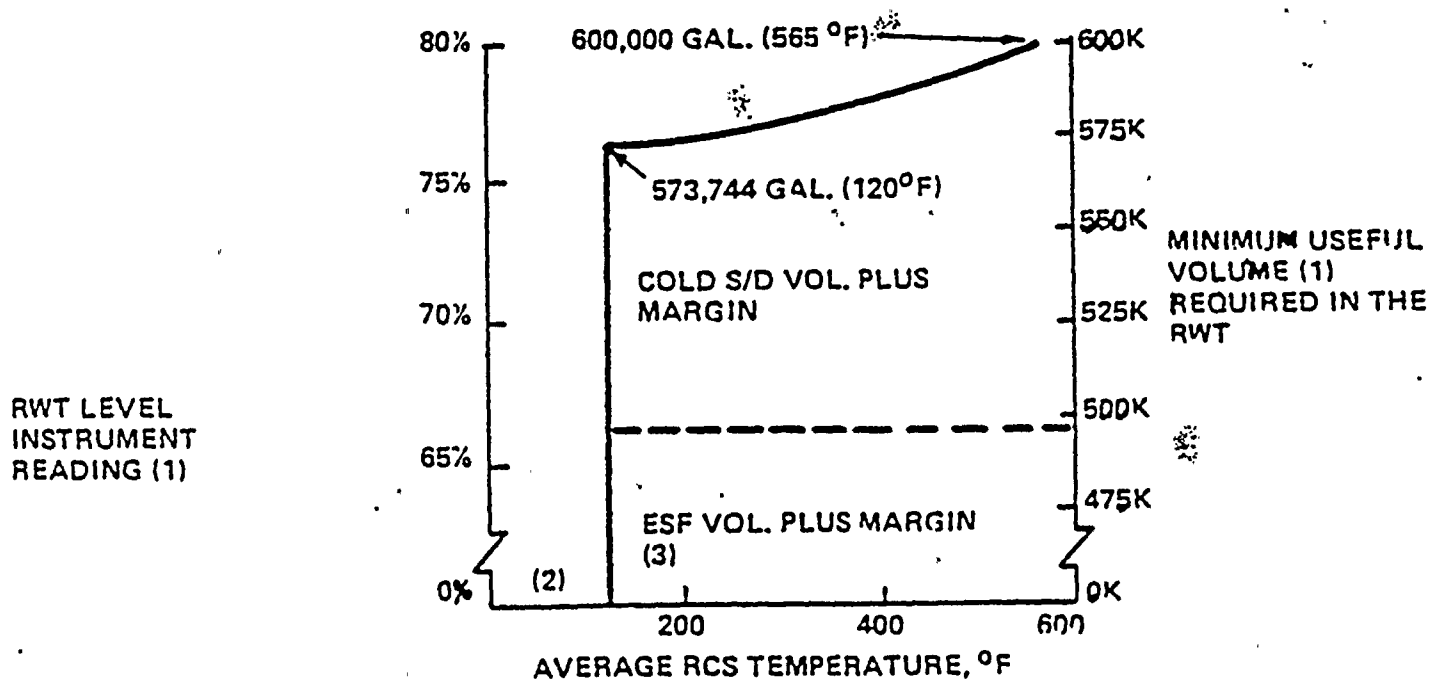
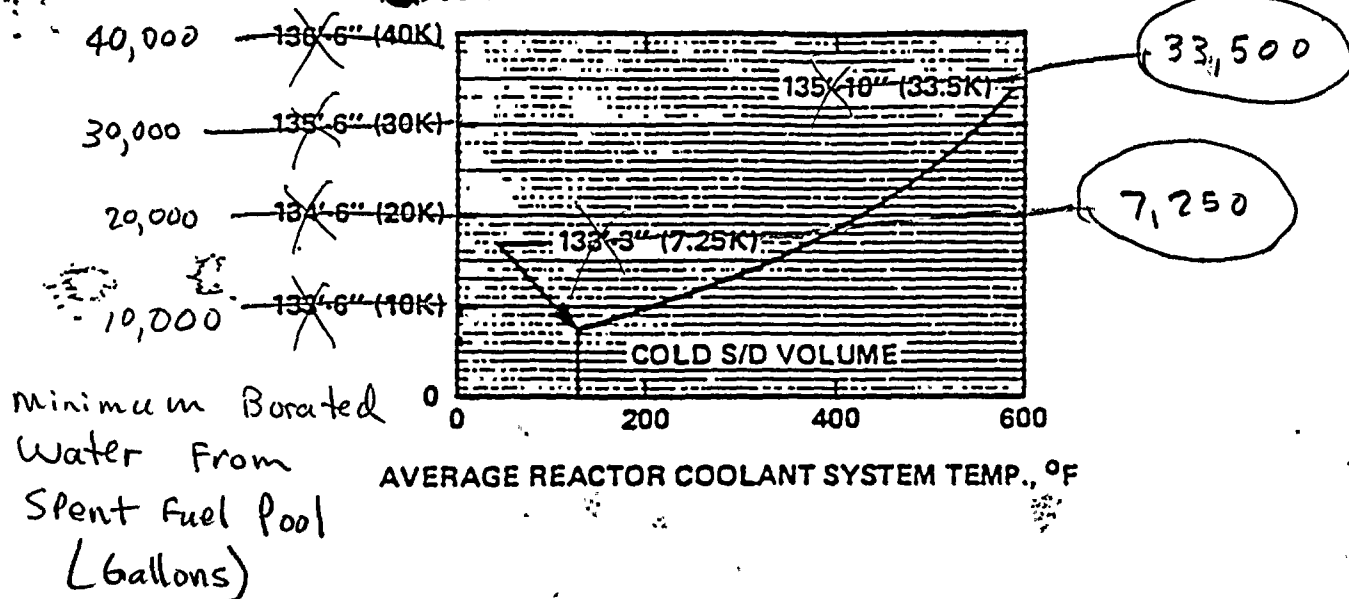
- a. Verifying that on a CIAS, CSAS or SIAS test signal, each isolation valve actuates to its isolation position.
- b. Verifying that on a CPIAS test signal, all containment purge valves actuate to their isolation position.

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\*Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

\*\*The inoperable isolation valve(s) may be part of a system(s). Isolating the affected penetration(s) may affect the use of the system(s). Consider the technical specification requirements on the affected system(s) and act accordingly.

# FOR INFORMATION ONLY



- (1) The tank level and volume shown are the useful level and volume above that in the tank which is required for vortex considerations
- (2) During Mode 5 and 6, one of these borated sources shall contain a minimum of 33,500 gallons
- (3) This volume is not required during Mode 6.

FIGURE 3.1-1  
MINIMUM BORATED WATER VOLUMES



## ELECTRICAL POWER SYSTEMS

### 3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

#### CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

##### LIMITING CONDITION FOR OPERATION

3.8.4.1 Primary and backup containment penetration conductor overcurrent protective devices associated with each containment electrical penetration circuit shall be OPERABLE. The scope of these protective devices excludes those circuits for which credible fault currents would not exceed the electrical penetration design rating.

APPLICABILITY: MODES 1, 2, 3, and 4.

##### ACTION:

With one or more of the above required containment penetration conductor overcurrent protective devices ~~shown in Table 3.8-2~~ inoperable:

- a. Restore the protection device(s) to OPERABLE status or deenergize the circuit(s) by tripping the associated backup circuit breaker or racking out or removing the inoperable device within 72 hours and declare the affected system or component inoperable and verify the backup circuit breaker to be tripped or the inoperable circuit breaker racked out at least once per 7 days thereafter; the provisions of Specification 3.0.4 are not applicable to overcurrent devices in circuits which have their backup circuit breakers tripped, or
- b. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

##### SURVEILLANCE REQUIREMENTS

4.8.4.1 The above noted primary and backup containment penetration conductor overcurrent protective devices (except fuses) shall be demonstrated OPERABLE:

- a. At least once per 18 months:
  1. By verifying that the medium voltage (4-15 kV) circuit breakers are OPERABLE by selecting, on a rotating basis, at least 10% of the circuit breakers of each voltage level, and performing the following:
    - (a) A CHANNEL CALIBRATION of the associated protection relays, and
    - (b) An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breakers and control circuits function as designed.

