

Docket No. 50-423  
B14108

Attachment 1

Millstone Nuclear Power Station, Unit No. 3  
Proposed Revision to Technical Specifications

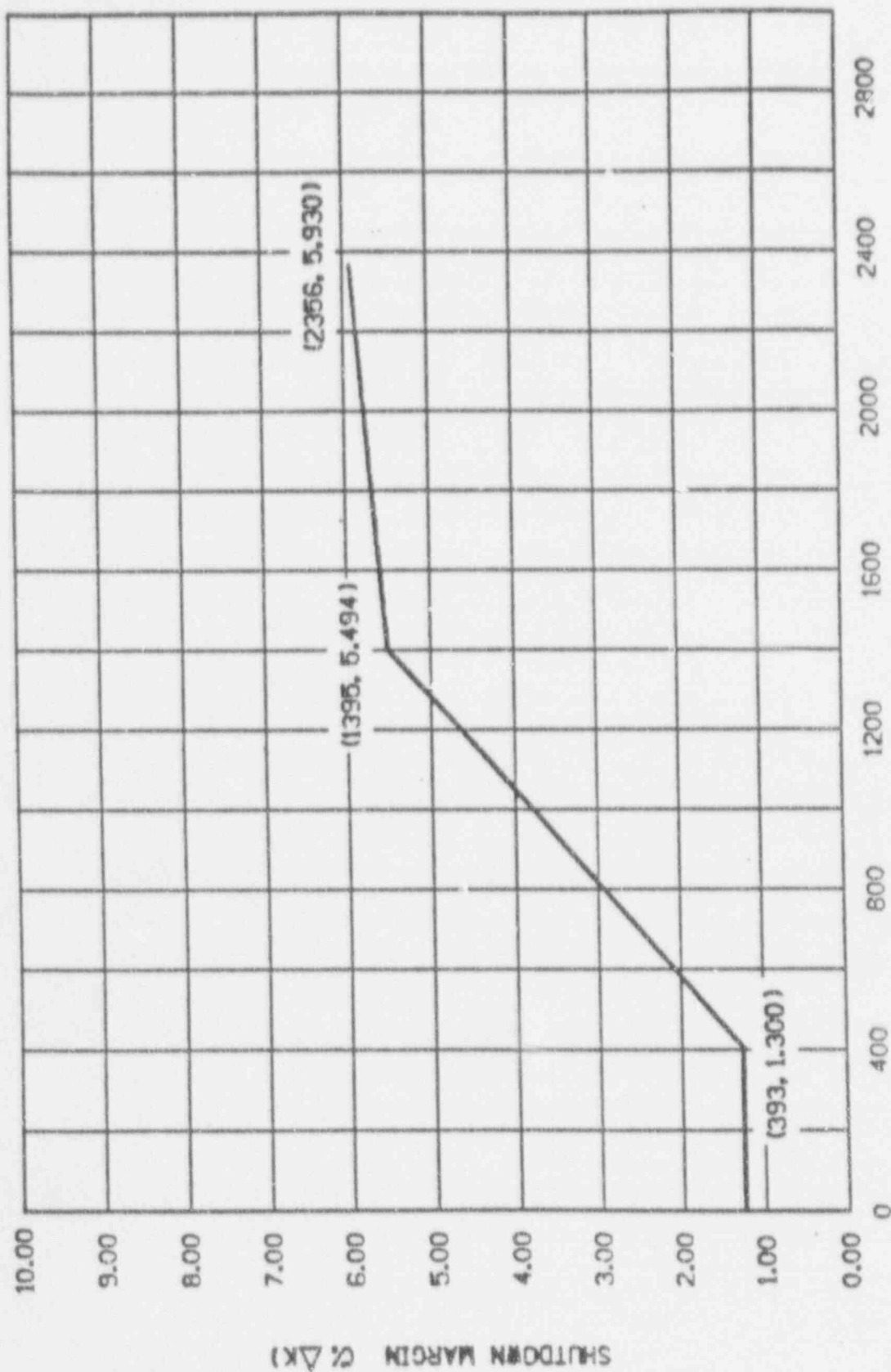
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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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RCS CRITICAL BORON CONCENTRATION (ppm)

FIGURE 3.1-5

REQUIRED SHUTDOWN MARGIN FOR MODE 5 WITH RCS LOOPS NOT FILLED

## REACTOR COOLANT SYSTEM

### HOT SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

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3.4.1.3 At least three of the reactor coolant loops listed below shall be OPERABLE, with at least three reactor coolant loops in operation when the Reactor Trip System breakers are closed. At least two of the loops listed below shall be OPERABLE and at least one of these loops shall be in operation with the Reactor Trip System breakers open:\*

- a. Reactor Coolant Loop 1 and its associated steam generator and reactor coolant pump,\*\*
- b. Reactor Coolant Loop 2 and its associated steam generator and reactor coolant pump,\*\*
- c. Reactor Coolant Loop 3 and its associated steam generator and reactor coolant pump,\*\*
- d. Reactor Coolant Loop 4 and its associated steam generator and reactor coolant pump,\*\*
- e. RHR Loop 1, and
- f. RHR Loop 2.

APPLICABILITY: MODE 4.

#### ACTION:

- a. With less than the above required loops OPERABLE, immediately initiate corrective action to return the required loops to OPERABLE status as soon as possible; if the remaining OPERABLE loop is an RHR loop, be in COLD SHUTDOWN within 24 hours.
- b. With no loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required loop to operation.

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\*All reactor coolant pumps and RHR pumps may be deenergized for up to 1 hour provided: (1) no operations are permitted that would cause dilution of the Reactor Coolant System boron concentration, and (2) core outlet temperature is maintained at least 10°F below saturation temperature.

\*\*A reactor coolant pump shall not be started with one or more of the Reactor Coolant System cold leg temperatures less than or equal to 350°F unless the secondary water temperature of each steam generator is less than 50°F above each of the Reactor Coolant System cold leg temperatures.

## REACTOR COOLANT SYSTEM

### HOT SHUTDOWN

#### SURVEILLANCE REQUIREMENTS

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4.4.1.3.1 The required reactor coolant pump(s), if not in operation, shall be determined OPERABLE once per 7 days by verifying correct breaker alignments and indicated power availability.

4.4.1.3.2 The required steam generator(s) shall be determined OPERABLE by verifying secondary side water level to be greater than or equal to 17% at least once per 12 hours.

4.4.1.3.3 The required reactor coolant loop(s) shall be verified in operation and circulating reactor coolant at least once per 12 hours.

## REACTOR COOLANT SYSTEM

### COLD SHUTDOWN - LOOPS NOT FILLED

#### LIMITING CONDITION FOR OPERATION

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3.4.1.4.2 Two residual heat removal (RHR) loops shall be OPERABLE\* and at least one RHR loop shall be in operation.\*\* SHUTDOWN MARGIN of Specification 3.1.1.2 shall be met.

APPLICABILITY: MODE 5 with less than two reactor coolant loops filled.

#### ACTION:

- a. With less than the above required RHR loops OPERABLE, immediately initiate corrective action to return the required RHR loops to OPERABLE status as soon as possible.
- b. With no RHR loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required RHR loop to operation.
- c. With the CVCS dilution flow paths not closed and secured in position, immediately close and secure the paths or satisfy the SHUTDOWN MARGIN of Specification 3.1.1.2.

#### SURVEILLANCE REQUIREMENTS

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4.4.1.4.2.1 The required RHR loops shall be demonstrated OPERABLE pursuant to Specification 4.0.5.

4.4.1.4.2.2 At least one RHR loop shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

4.4.1.4.2.3 When shutdown margin is being met by specification 3.1.1.2(b) at least per 31 days the following valves shall be verified closed and locked. The valves may be opened on an intermittent basis under administrative control.

\*One RHR loop may be inoperable for up to 2 hours for surveillance testing provided the other RHR loop is OPERABLE and in operation.

\*\*The RHR pump may be deenergized for up to 1 hour provided: (1) no operations are permitted that would cause dilution of the Reactor Coolant System boron concentration, and (2) core outlet temperature is maintained at least 10°F below saturation temperature.

### 3/4.9 REFUELING OPERATIONS

#### 3/4.9.1 BORON CONCENTRATION

##### LIMITING CONDITION FOR OPERATION

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3.9.1.1 The boron concentration of all filled portions of the Reactor Coolant System and the refueling canal shall be maintained uniform and sufficient to ensure that the more restrictive of the following reactivity conditions is met; either:

- a. A  $K_{eff}$  of 0.95 or less, or
- b. A boron concentration of greater than or equal to 2600 ppm.

Additionally, valve 3CHS\*V305 and the CVCS valves of Specification 4.4.1.4.2.3 shall be closed and secured in position.

APPLICABILITY: MODE 6.\*

##### ACTION:

- a. With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes and initiate and continue boration at greater than or equal to 33 gpm of a solution containing greater than or equal to 6300 ppm boron or its equivalent until  $K_{eff}$  is reduced to less than or equal to 0.95 or the boron concentration is restored to greater than or equal to 2600 ppm, whichever is the more restrictive.
- b. With any of the CVCS valves of Specification 4.4.1.4.2.3 not closed\*\* and secured in position, immediately close and secure the valves.

##### SURVEILLANCE REQUIREMENTS

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4.9.1.1.1 The more restrictive of the above two reactivity conditions shall be determined prior to:

- a. Removing or unbolting the reactor vessel head, and
- b. Withdrawal of any full-length control rod in excess of 3 feet from its fully inserted position within the reactor vessel.

4.9.1.1.2 The boron concentration of the Reactor Coolant System and the refueling canal shall be determined by chemical analysis at least once per 72 hours.

4.9.1.1.3 Valve 3CHS\*V305 and the CVCS valves of Specification 4.4.1.4.2.3 shall be verified closed and locked at least once per 31 days.

\*The reactor shall be maintained in MODE 6 whenever fuel is in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

\*\*Except those opened under administrative control.