

Mike Fletcher

REV. 1001

DATE 5/6/79

EMERGENCY PROCEDURE EP- 5

TITLE: LOSS OF LETDOWN

APPROVALS: PORC (Vice-Chairman) R P Warren DATE 5/3/79

INIT. SUPT. [Signature] DATE 5/3/79

BSH [Signature] DATE 5/5/79 HRC Mike Fletcher DATE 5/6/79

ALARA [Signature] DATE 5-6-79

LOSS OF LETDOWN) Symptoms

- 1.1 Loss of letdown flow indication in the control room
- 1.2 Closed indication on letdown cooler isolation valves  
(MUV1A & MUV1B or MUV2A or MUV2B)
- 1.3 Closed indication on letdown isolation valve (MUV376)
- 1.4 Letdown temperature does not increase after ICCW to the  
letdown cooler is cycled and secured
- 1.5 Pressurizer level calculations per EP-21 indicate increasing level  
with the RCS makeup valves MUV17 and MUV18 closed
- 1.6 Decreasing makeup tank level
- 1.7 Rapidly increasing pressure, if in solid water operations on the RCS

2.0 Immediate Actions

## 2.1 Automatic Actions

- 2.1.1 None

## 2.2 Manual Actions

## 2.2.1 Attempt to reestablish letdown

- a. Unisolate a letdown cooler - check open MU-V1A (B) & MU-V2A (B)

NOTE: The MU-V1A(B) interlock with the intermediate cooling inlet valves (IC-V1A (B) ) has been temporarily jumpered per SOP Z-56. *up*

NOTE: If Aux. Bldg. entry becomes necessary, full HP coverage is required to check valve lineups and to operate valves.

- b. Check open MU-V376.

2.2.2 If unable to reestablish letdown perform the following:

a. Verify the RC Makeup Control Valve (MU-V17) is in manual, then close it. Also close MU-V18 to back up MU-V17.

b. Verify the ICCM system is operating.

~~CAUTION: Do not isolate Seal Injection unless no other means is available to maintain Pressurizer level.~~

c. To adjust seal injection flow, <sup>if seal injection is established,</sup> place seal injection control valve (MU-V32) in manual or throttle the seal injection needle control valves with respect to the following plant conditions:

1) System Temperature less than 200°F

- Maintain <sup>ICCW</sup> component cooling water greater than 45 gpm
- Maintain seal injection greater than seal leakage plus staging flow ?
- Seal return line may be open or closed

2) System Temperature greater than 200°F

- Maintain <sup>ICCW</sup> component cooling water greater than 45 gpm
- Maintain seal injection greater than 1 gpm plus seal leakage
- Seal return valve should be closed

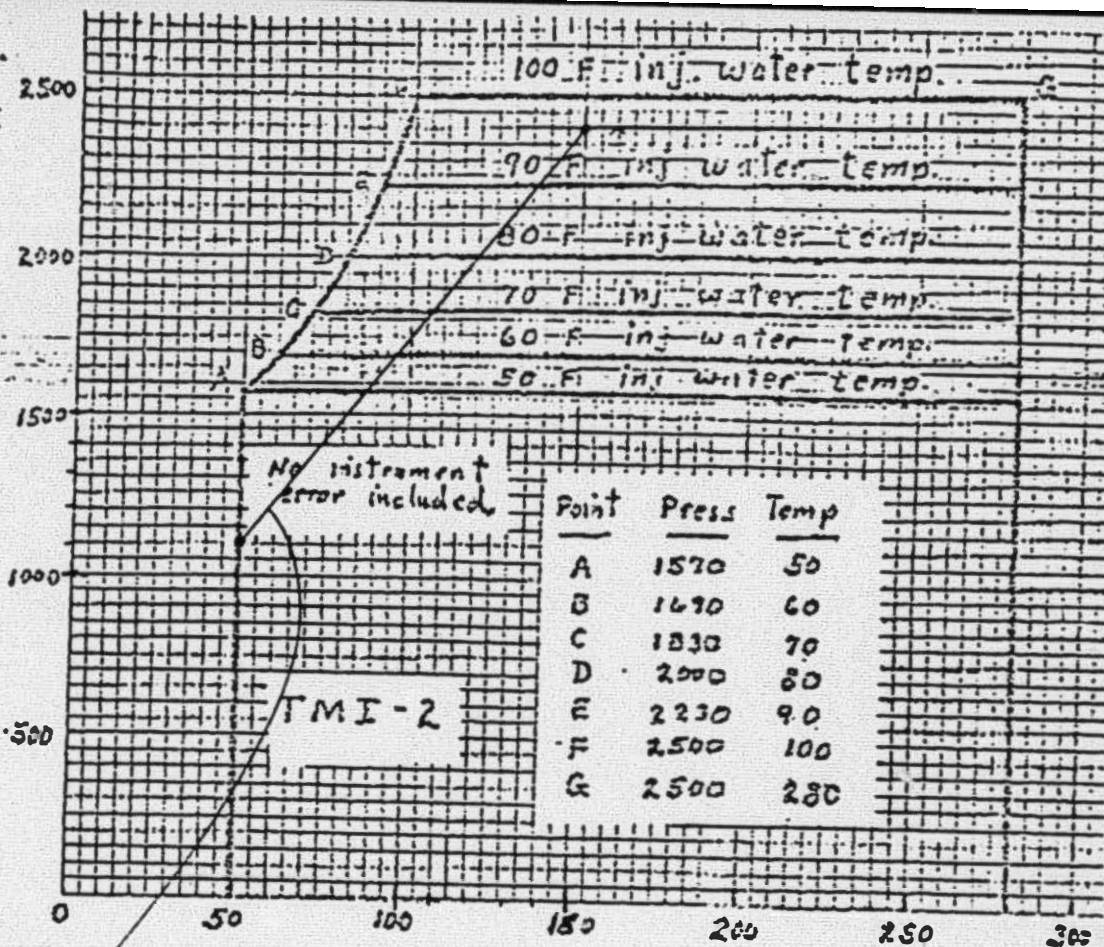
~~CAUTION: Do not isolate Seal Injection unless no other means is available to maintain Pressurizer level.~~

d. As pressurizer level increases an alternate method of reducing RCS inventory is by throttling open RCV-137. Maintain RCS temperature and pressure within the operating window of Figure A.

e. If letdown is restored, control pressurizer level by initiating makeup flow through MU-V17 and MU-V18.

2.2.3 If increasing pressurizer level makes going solid imminent, proceed to Special Operating Procedure Z-63.

RC PRESS. - PSIG



RC Cold leg TEMP. - °F (T<sub>c</sub>)

ALLOWABLE OPERATING ENVELOPE FOR REACTOR

VESSEL HDT LIMITS

old "figure A"

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