

PORC CHAIRMAN UNIT 1

1202-26A
Revision 7
09/18/79

THREE MILE ISLAND NUCLEAR STATION
UNIT #1 EMERGENCY PROCEDURE 1202-26A
LOSS OF STEAM GENERATOR FEED TO BOTH OTSG'S

Table of Effective Pages

CONTROLLED COPY

| <u>Page</u> | <u>Date</u> | <u>Revision</u> | <u>Page</u> | <u>Date</u> | <u>Revision</u> | <u>Page</u> | <u>Date</u> | <u>Revision</u> |
|-------------|-------------|-----------------|-------------|-------------|-----------------|-------------|-------------|-----------------|
| 1.0 | 06/15/79 | 4 | 26.0 | | | 51.0 | | |
| 2.0 | 09/18/79 | 7 | 27.0 | | | 52.0 | | |
| 3.0 | 08/30/79 | 6 | 28.0 | | | 53.0 | | |
| 4.0 | | | 29.0 | | | 54.0 | | |
| 5.0 | | | 30.0 | | | 55.0 | | |
| 6.0 | | | 31.0 | | | 56.0 | | |
| 7.0 | | | 32.0 | | | 57.0 | | |
| 8.0 | | | 33.0 | | | 58.0 | | |
| 9.0 | | | 34.0 | | | 59.0 | | |
| 10.0 | | | 35.0 | | | 60.0 | | |
| 11.0 | | | 36.0 | | | 61.0 | | |
| 12.0 | | | 37.0 | | | 62.0 | | |
| 13.0 | | | 38.0 | | | 63.0 | | |
| 14.0 | | | 39.0 | | | 64.0 | | |
| 15.0 | | | 40.0 | | | 65.0 | | |
| 16.0 | | | 41.0 | | | 66.0 | | |
| 17.0 | | | 42.0 | | | 67.0 | | |
| 18.0 | | | 43.0 | | | 68.0 | | |
| 19.0 | | | 44.0 | | | 69.0 | | |
| 20.0 | | | 45.0 | | | 70.0 | | |
| 21.0 | | | 46.0 | | | 71.0 | | |
| 22.0 | | | 47.0 | | | 72.0 | | |
| 23.0 | | | 48.0 | | | 73.0 | | |
| 24.0 | | | 49.0 | | | 74.0 | | |
| 25.0 | | | 50.0 | | | 75.0 | | |

Unit 1 Staff Recommends Approval

Approval NA Date
Cognizant Dept. Head

Unit 2 Staff Recommends Approval

Approval NA Date
Cognizant Dept. Head

Unit 1 PORC Recommends Approval

NA Date 9-17-79
Chairman of PORC

Unit 2 PORC Recommends Approval

NA Date
Chairman of PORC

Unit 1 Superintendent Approval

NA Date

Unit 2 Superintendent Approval

NA Date

Manager Generation Quality Assurance Approval

NA Date

7910100278

1134 134 P

THREE MILE ISLAND NUCLEAR STATION
UNIT #1 EMERGENCY PROCEDURE 1202-26A
LOSS OF STEAM GENERATOR FEED TO BOTH OTSG'S

POOR ORIGINAL

26.1 SYMPTOMS

1. Both OTSG(s) levels decreasing.
2. Normal Feedwater flow to both OTSG's decreasing.
3. Feed pump turbine speed decreasing or both normal feed valves (FW-V17A/B) closing.
4. Both feed pump turbine trip alarms.
5. Reactor and turbine trip if both feed pumps trip.
6. Reactor/turbine runback.
7. Increasing reactor coolant pressure and temperature.

26.2 IMMEDIATE ACTION

A. Automatic Action

1. Reactor trip due to high RCS pressure, or due to trip of both feed pumps.
2. Emergency feed pumps EF-P1, EF-P2A, and EF-P2B start on loss of both main feed pumps and maintain OTSG level at 30"

NOTE: An asterisk (*) indicates reverification of the parameter value - is required as part of Step 1 of follow-up action.

B. Manual Action

1. Trip the reactor and perform immediate manual actions per EP 1202-04.
2. Trip the turbine and verify stop valves and combined intercept valves closed. Verify generator breakers open.

3. Verify turbine driven emergency feed pump (EF-P1) and motor driven pumps (EF-P2A/2B) start as evidenced by pump discharge pressure PI-65, PI-71, and PI-72 greater than 1010 psig.
4. Verify EFV-30A/B are in automatic.
5. Verify emergency feed flow by flow indication on control room console as needed to control level to 30" on start-up range* (50% on operating range* for loss of RC pumps).
NOTE: When filling both S.G.'s from a loss of F.W. condition, limit flow rate to each OTSG to approximately 360 GPM. (This will tend to reduce thermal shock to OTSG and avoid serious drop in RCS pressure and temperature).
6. Verify that RC loop pressure is returning to approximately 2155 psig* and that TH is decreasing to approximately 550°F*. If RC pressure continues to decrease below 2155 psig, an RCS leak or a steam system leak should be suspected.

26.3 FOLLOW-UP ACTION

The objective of the loss of feed procedure is to verify that the auxiliary feed system starts and maintains steam generator level to remove decay heat from the RCS. Steam generator level is increased on loss of RC pumps to provide the thermal driving head for natural circulation to remove decay heat.

1. On completion of necessary immediate manual action steps, reverify the key parameter readings that are marked with an asterisk (*). Use alternate instrument channels where available.

POOR ORIGINAL

2. Investigate cause of loss of feedwater and restore normal feed to OTSG.
3. On loss of both main feedwater pumps, if plant cooldown is required, conduct cooldown using emergency feed system. Refer to OP #1102-13 Decay Heat Removal by OTSG.
4. If EF-V30A/B do not respond to maintain appropriate OTSG level indication, take manual control of EF-V30A/B hand/auto station to maintain proper level. If EF-V30A/B still do not respond, station an operator in communication with the control room to take local manual control in accordance with OP 1106-6.
5. If unable to establish main or emergency feedwater, initiate HPI cooling as follows:
 - a) Initiate High Pressure Injection.

CAUTION: Do not throttle HPI until steam generator cooling is re-established and RCS is at least 50°F subcooled by both cold and hot leg temperature indications and hot leg temperature is not more than 50°F higher than secondary side saturation temperature.

- b) Open RC-V2 and allow RCRV2 to cycle until feed water flow is regained.