EMERGENCY PROCEDURE EP-35

TITLE: LOSS OF INSTRUMENT AIR AND SERVICE AIR

APPROVALS: PORC (Vice-Chairman) N. WILLIAMS DATE 5/8/79
UNIT SUPT.: M. TINKER DATE 5/8/79
ALARA DATE 5/11/79

REV. 0 DATE 5/8/79

NF
1.0 SYMPTOMS

1.1 Instrument Air (IA) Compressor Trouble Alarm

1.2 Service Air (SA) Compressor Trouble Alarm and Loss of HEADER PRESSURE ALARM

1.3 Low readings on the Instrument Air and Service Air Receiver Pressure Indicators on Panel 17.

2.0 IMMEDIATE ACTIONS

2.1 Automatic Actions

2.1.1 The SA and IA Compressor(s) in AUTO will start when SA and IA pressure respectively drop to 90 psig.

2.1.2 SA-V358 closes at 70 psig, isolating the SA distribution system from the SA compressors and the entire IA system. This may secure breathing air if in use.

2.2 Manual Actions

2.2.1 Verify running or start all SA and IA compressors.

2.2.2 If IA and/or SA pressure continues to drop with all compressors running, direct personnel using breathing air to immediately evacuate the area where breathing air is required and secure using breathing air.

2.2.3 If IA and/or SA pressure decreases to 60 psig with all compressors running, shut MU-V378 to secure seal injection flow to the RCPs.

3.0 FOLLOW-UP ACTIONS

3.1 Attempt to locate and isolate the leak in the air system.

CAUTION: Do not isolate breathing air from any supply until use of breathing air has been discontinued.

NOTE: Refer to the Attachment for a simplified diagram of the SA and IA systems.

3.1.1 Initially shut SA-V357 and SA-V362 to determine which major components the leak is in. Re-open the valves as possible without reconnecting the leaking components with intact components.

3.1.2 Continue to attempt to locate and isolate the leak.
3.2 If IA pressure remains below 60 psig:

3.2.1 Shut MU-V376 to secure letdown flow. Go to the CLOSE position for MU-V18 to ensure it is shut to secure make-up flow.

NOTE: The plant is now operating with no seal injection, make-up or letdown. Do not perform any operations which would result in the need for letdown. With the manually operated valves, MU-V100, 105 and 149, open, some letdown may be possible by opening MU-V376. This should be verified at the earliest convenient time after loss of IA or SA. If necessary, all MJ/HPI pumps can be secured to completely stop make-up. MU-V16A or B can be used if necessary for make-up.

3.2.2 Trip the Reactor Building Normal Cooling Water pumps (RB-P-1A and RB-P-1B).

3.2.3 Trip the Control Building River Water Booster pumps (NR-P-2A and NR-P-2B).

3.2.4 Manually OPEN VA-V4A,B and/or C to the running Condenser Vacuum pumps.

3.2.5 Manually position the turbine bypass valves to the condenser as necessary (MS-V25A/B, MS-V26A/B).

3.2.6 Manually OPEN the Feedwater and Main Steam Penetration Cooling valves (AH-V91, 92, 93, 94) if necessary to control Reactor Building concrete temperatures.

3.2.7 Initiate Reactor Building Emergency Cooling per 2104-5.1 section 4.5 if required for Reactor Building cooling.

3.3 If IA pressure cannot be restored and the leak is not in the IA distribution system, consideration should be given to supplying IA from the Unit 1 IA system per 2104-2.3 section 4.4.1. This requires both Unit Superintendent's approval prior to cross-connect.
IA and SA Systems