

Jersey Central  
Power & Light Company



Subject: Turbine Building Closed Cooling  
Water System Failure

Procedure No.  
507.2

Page 1 of 4

Date Issued  
8/20/76

Effective Date  
6/18/79-6/28/79

Revision No.  
3

Date  
6/13/79

Authorized By  
Station Superintendent

Approval/Concurrence

Project: Oyster Creek Nuclear Generating Station

LIST OF EFFECTIVE PAGES

DATE

REVISION NUMBER

1	6/13/79	3
2	5/10/79	2
3	6/13/79	3
4	6/13/79	3

\*\*This procedure replaces Section 507.2 of the old 507 procedure per 507 Rev. 2.

POOR ORIGINAL

CONTROLLED DISTRIBUTION  
DOCUMENT SERIAL NUMBER 35

7912040336

1472 541

Subject: Turbine Building Closed Cooling Water System Failure	Procedure No. 507.2	Page 2 of 4 Pages
	Revision No. 2	Date 5/10/79

### 1.0 Purpose:

To provide a procedure for operator action should the Turbine Building Closed Cooling Water System (TBCCWS) fail due to pump failure or pipe break.

### 2.0 Indications to the Operator:

2.1 Failure of TBCCWS may be indicated by one or more of the following alarms or indications:

- 2.1.1 Panel 7F - Annunciator "Q".
  - 2.1.1.1 TBCC Water Pump 1-1 Trip
  - 2.1.1.2 TBCC Water Pump 1-2 Trip
  - 2.1.1.3 TBCC Water Pump 1-3 Trip
  - 2.1.1.4 TBCC Water Disch. Low Press.
  - 2.1.1.5 TBCC Water Pump Auto Start

2.2 Other alarms associated with equipment cooled by TBCCW may be received.

### 3.0 Automatic Actions:

3.1 The standby TBCCW pump will start upon a low discharge header pressure.

### 4.0 Immediate Operator Action:

- 4.1 If one TBCCW pump fails, verify that the standby TBCCW pump starts.
- 4.2 If two TBCCW pumps fail, attempt to manually restart two pumps.
  - 4.2.1 If only one TBCCW pump is available and TBCCW temperature is rising, reduce the reactor recirculation flow to minimum using the recirculation flow master controller.

Note: (1) If a reduced TBCCW flow is experienced through the stator cooling heat exchangers, the time differential between the reduced flow and receipt of the stator cooling high temperature alarm is dependent on generator load and TBCCW heat exchanger capacity.

1472 42

Subject: Turbine Building Closed Cooling Water System Failure	Procedure No. 507.2	Page 3 of 4 Pages
	Revision No. 3	Date 6/13/79

- (2) If stator cooling high temperature is alarmed, the generator runback feature will reduce generator load to about 20% of rated automatically within 3 minutes and the bypass valves will open automatically.
- (3) When turbine load is reduced to a point below the low load trip, reset the 25% load trip (green button) behind Panel 13R.
- 4.2.2 Dispatch an operator to adjust the TBCOW supply to the turbine lube oil coolers to reduce the turbine bearing oil temperature.
- 4.2.3 If the turbine bearing high temperature alarm is initiated, check the turbine bearing thermocouple recorder on Panel 11R. If turbine bearing temperature is  $\geq 185^{\circ}\text{F}$ , reduce turbine load manually to decrease bearing temperatures.
- 4.3 If all TBCOW pumps fail or a major pipe break occurs and no TBCOW pumps can be restarted and the break cannot be isolated:
  - 4.3.1 Trip the turbine. Manually scram the reactor if less than 45% turbine load.
  - 4.3.2 Trip all recirculation pumps. Insure the suction and discharge valves remain open until the pump start procedure is implemented.
  - 4.3.3 Initiate transfer of air compressor cooling to the Fire Water System. Isolate the TBCOW supply and return to the air compressors. Implement Procedure 503 if a loss of air should occur.
  - 4.3.4 Monitor feedwater pump and condensate operation since pumps are utilizing TBCOW for cooling.
  - 4.3.5 If feedwater pumps become inoperable at reactor pressure greater than 250 psig, isolate the reactor or place the isolation condensers in service to maintain cooldown.

1472 43

Subject: Turbine Building Closed Cooling Water System Failure	Procedure No. 507.2	Page 4 of 4 Pages
	Revision No. 3	Date 6/13/79

4.4 If a small TBOCW system pipe break occurs such that the level in the TBOCW surge tank can be maintained, locate and isolate the leak.

5.0 Subsequent Operator Action:

5.1 Monitor equipment cooled by the TBOCW System for excessive temperatures.

5.2 In the event only one TBOCW pump is in service, adjust TBOCW flow to prevent pump runout.

5.3 If reactor scram was required, refer to emergency procedure 532, "Automatic or Manual Reactor Scram", or procedure 514, "Reactor Isolation Scram" as appropriate.

5.4 If more than one recirculation pump is tripped, place the reactor in the cold shutdown condition within 24 hours.

5.5 Notify Supervisor - Station Operations.

6.0 References:

6.1 Reportable Occurrence 79-14.

1472 544