

## STATION PROCEDURE COVER SHEET

### 1. IDENTIFICATION

Number: OP 2323A

Rev. 19

Title: TURBINE

Prepared By: B. Ferguson

### 2. REVIEW

I have reviewed the above procedure and have found it to be satisfactory.

TITLE	SIGNATURE/DATE	TITLE	SIGNATURE/DATE
DEPARTMENT HEAD	<u>[Signature]</u> <u>5/23/95</u>	PWG	<u>[Signature]</u> <u>5/19/95</u>
SYSTEM ENG	<u>[Signature]</u> <u>for Jan Hoyle/5/9/95</u>	IND REVIEW	<u>[Signature]</u> <u>5/11/95</u>

### 3. SPECIFIC UNREVIEWED SAFETY QUESTION EVALUATION REQUIRED:

Modifies intent of procedure and changes operation of systems as described in design documents.

YES [ ] NO ☒

(If yes, perform written USQ determination and Safety Evaluation, and contact Manager, Safety Analysis Branch to determine need for Integrated Safety Evaluation.)

### ENVIRONMENTAL REVIEW REQUIRED

(Adverse environmental impact)

YES [ ] NO ☒

### 4. SPECIFIC SAFETY EVALUATION REQUIRED

Affects response of safety systems, performance of systems which may have been credited in the safety analysis or non-credited systems which may indirectly affect safety system response.

YES [ ] NO ☒

(If yes, coordinate Safety Evaluations and contact Manager, Safety Analysis Branch to determine need for Integrated Safety Evaluation.)

### 5. INTEGRATED SAFETY EVALUATION REQUIRED

YES [ ] NO ☒

### 6. BIENNIAL REVIEW

This revision satisfies biennial review requirements.

YES [ ] NO ☒

### 7. PROCEDURE REQUIRES PORC/SORC REVIEW

(In addition to review, items with a YES response must be documented in the PORC/SORC meeting minutes.)

YES ☒ NO [ ]

### 8. PORC/SORC APPROVAL PORC/SORC Meeting Number 2-95-175

### 9. APPROVAL AND IMPLEMENTATION

The attached procedure is hereby approved, and effective on the date below:

[Signature]  
Sr. VICE PRESIDENT/DIRECTOR - UNIT/SERVICES

5/26/95  
EFFECTIVE DATE

UNIT 2  
TURBINE

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Eff. Rev.

19

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## 5.8 Turbine Shutdown

### CAUTION

Turbine shutdown must be accomplished as expeditiously as possible to avoid unnecessary cooling of low pressure turbine rotor wheels while operating at low steam flows.

- 5.8.1 Refer To Section 5.9 and VERIFY turning gear aligned for automatic operation.
- 5.8.2 IF the turbine will *not* be restarted within 24 hours, PERFORM the following:
  - 5.8.2.1 Prior to turbine trip, VERIFY 3 out of 4 RPS linear drawer level 1 bistables are reset.
  - 5.8.2.2 To prevent FRV bypass valve motion, PRESS and HOLD both FRV downcomer reset and ramp stop buttons.
  - 5.8.2.3 PRESS red "TRIP" button.
  - 5.8.2.4 OPEN 2-FV-1 as necessary to raise running EHC pump amps to between 45 and 55 amps. (unloaded amps are between 35 and 40 amps)
- 5.8.3 IF the turbine will be restarted within 24 hours, PRESS "SPEED SET RPM, CLOSE VALVES" button and OBSERVE light lit.
- 5.8.4 SET turbine bearing oil temperature controller, TIC-7209, to 85°F.
- 5.8.5 Refer To OP 2324C, "Generator Hydrogen System and Carbon Dioxide Purge" and SHIFT hydrogen purity analyzer to standstill operation.

### CAUTION

Following turbine shutdown, bearing oil flow must be maintained for 4 hours after shutdown regardless of turning gear operation.

- 5.8.6 WHEN turbine rotor stops, PERFORM the following:
  - 5.8.6.1 Refer To Section 5.9 and VERIFY proper turning gear engagement.
  - 5.8.6.2 STOP "MOTOR SUCT PP, P-61" and PLACE switch in "PULL TO LOCK" (C-07).
  - 5.8.6.3 START "TURB BRG LIFT PP" "A" (C-07).

- 5.8.7 IF turbine overhaul is to be performed while shutdown, Refer To SP2651I, "Emergency Bearing Oil Pump Surveillances," and PERFORM test.
- 5.8.8 When a minimum of 4 hours on the turning gear have elapsed and it is desired to secure the turbine lube oil system, PERFORM the following:
  - 5.8.8.1 PLACE "TURN GEAR MTR, L-40" switch in "PULL TO LOCK" (C-07).
  - 5.8.8.2 PLACE *all* bearing lift pump switches in "PULL TO LOCK" (C-07).
  - 5.8.8.3 OPEN and RACK OUT emergency bearing oil pump breaker, D0305.
  - 5.8.8.4 VERIFY "MOTOR SUCT PP, P-61" switch in "PULL TO LOCK" (C-07).
  - 5.8.8.5 PLACE "TURN GEAR OIL PP, P-62" switch in "PULL TO LOCK" (C-07).