

EOP: AP-TURB.3	TITLE: TURBINE VIBRATION	REV: 5 PAGE 1 of 5
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ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 23

TECHNICAL REVIEW

PORC REVIEW DATE 2-7-90

Joseph A. Riday
PLANT SUPERINTENDENT

2-23-90
EFFECTIVE DATE

QA _____ NON-QA _____ CATEGORY 1.0

REVIEWED BY: _____

GINNA STATION

START:

DATE _____

TIME _____

COMPLETED:

DATE _____

TIME: _____

9003080374 900227
PDR ADDCK 05000244
F PNU

*Superseded pages for Rev.
EOPs 50-244 9304450154
3/30/53*



EOP: AP-TURB.3	TITLE: TURBINE VIBRATION	REV: 5 PAGE 2 of 5
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A. PURPOSE - This procedure provides the necessary actions to be taken in the event of increasing turbine vibrations.

B. ENTRY CONDITIONS/SYMPTOMS

1. SYMPTOMS - The symptoms of TURBINE VIBRATION are;

- a. Annunciator I-27, Rotor Eccentricity or Vibration alarm is lit.
- b. Increasing or High Turbine Vibration detected.

EOP: AP-TURB.3	TITLE: TURBINE VIBRATION	REV: 5 PAGE 3 of 5
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
	<p><u>NOTE:</u> o The exciter bearing No. 9 is not as limiting as the turbine bearings Nos.1 through 8.</p> <p> o Step 1 is an IMMEDIATE ACTION step.</p>	
1	<p>Check Turbine Vibration:</p> <ul style="list-style-type: none"> o Bearings No. 1 through No. 8 - LESS THAN 14 MILS o Bearing No. 9 - INDICATION ON SCALE 	<p>Perform the following:</p> <ul style="list-style-type: none"> a. Trip the turbine. b. Go to AP-TURB.1, TURBINE TRIP WITHOUT RX TRIP REQUIRED <u>OR</u> E-0, REACTOR TRIP or SAFETY INJECTION, as required.



EOP: AP-TURB.3	TITLE: TURBINE VIBRATION	REV: 5 PAGE 4 of 5
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
2	Check No. 9 Bearing Vibration - LESS THAN 14 MILS	Initiate load reduction to decrease vibrations. <u>IF</u> vibrations can <u>NOT</u> be reduced, <u>THEN</u> shutdown the plant, (Refer to 0-2.1, NORMAL SHUTDOWN TO HOT SHUTDOWN).
***** <u>CAUTION</u> IF AT ANY TIME VIBRATIONS EXCEED 14 MILS, RETURN TO STEP 1. *****		
3	Check Turbine Vibration:	
a.	Bearings No. 1 through No. 8 - LESS THAN 7 MILS	a. Attempt to stabilize vibration as follows: o <u>IF</u> increasing turbine speed, <u>THEN</u> stop speed increase and evaluate. o <u>IF</u> generator on line, <u>THEN</u> begin reducing load to stabilize vibrations.
b.	Bearing No. 9 - LESS THAN 7 MILS	b. Attempt to stabilize vibrations as follows: o Adjust generator hydrogen temperature, -OR- o Adjust turbine lube oil temperature, -OR- o Adjust exciter cooling.

EOP: AP-TURB.3	TITLE: TURBINE VIBRATION	REV: 5 PAGE 5 of 5
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
4	Verify Turbine Vibrations - STABLE OR DECREASING	Continue reducing load until vibrations are stable or decreasing, <u>OR</u> Take unit off line, if necessary. (Refer to 0-2.1, NORMAL SHUTDOWN TO HOT SHUTDOWN) and go to Step 6.
5	Stop - LOAD REDUCTION	
6	Check The Turbine Generator For Unusual Noises: o Turbine generator - NO UNUSUAL NOISES	<u>IF</u> unusual noises detected, <u>THEN</u> notify the Maintenance Manager.
7	Complete - HIGHER SUPERVISION NOTIFICATION	

-END-

