

In 60 MW Unit-II TG-set DCS got frozen on 11.12.2009 at 00.00 hrs while the unit was in service at a load of 55 MW. The super heated temperature fell below 500°C and load was reduced to trip the unit. Even though the load got reduced and turbine trip pulse button at control desk was pressed, Turbine did not get trip. When the turbine was hand tripped at local, turbine speed did not get reduced. Hence ESV hand valve was closed and generator breaker tripped at desk. Load maintained at 0.00 MW for 2 minutes (Two) and then got tripped at 00.08 Hrs. Vacuum killed at 0.15 Hrs and turbine came to rest at 0.35 Hrs.

For the load of 55 MW Turbo-supervisory parameters are well with in the limit, the local vibration reading are as follows.

Bearing	H	V	A
HPF	10/3	10/2	12/3
HPR	8/2	10/2	10/2
LPF	10/3	12/3	12/2
LPR	22/3	22/3	18/3
GF	18/3	38/5	16/3
GR	20/3	10/2	24/4

After checking the mechanical trip of the turbine, turbine was steam rolled and put in to bar. Unit load was raised up to 10 MW and the local vibration reading as follows

Bearing	H	V	A
HPF	42/5	34/3	26/2
HPR	26/3	22/2	12/2
LPF	18/2	12/2	10/2
LPR	76/5	58/5	42/4
GF	52/6	68/7	42/5
GR	100/9	110/9	90/10

Due to high vibration in generator rear bearing, the unit was hand tripped. Again turbine was steam rolled and put in to bar. Turbine load was raised to 5 MW. The local vibration reading as follows.

	H	V	A
HPF	50/4	40/3	30/4
HPR	22/4	20/3	22/3
LPF	20/3	18/3	24/4
LPR	60/5	30/4	50/4
GF	58/5	90/6	50/5
GR	100/9	120/9	110/13

Further load raised to 20 MW. The local vibration reading as follows

	H	V	A
HPF	42/6	46/5	48/6
HPR	40/3	36/4	30/5
LPF	48/5	46/6	40/5
LPR	68/6	38/4	40/4
GF	70/5	100/7	38/5
GR	150/16	150/14	130/14

Due to high vibration in generator front and rear bearings the unit was again hand tripped.