

DRG.NO. 41211490000
REV.NO. 00
DATE: 17/05/07

THERMAL INSULATION SCHEDULE FOR TG INTEGRAL PIPING

PROJECT: 500 MW

PROJECT STAGE: CONTRACT

SPEC.NO. ST29005

DESIGN PARAMETERS:

COLD FACE TEMPERATURE: 60 DEG C

AMBIENT TEMPERATURE: 45 DEG C

EMISSIVITY OF AL. SHEET: 0.09

WIND VELOCITY: 1 M/S

MATERIALS:

INSULATION MATERIAL: LIGHTLY RESIN BONDED ROCKWOOL
AS PER IS:8183

DENSITY : 1. 100 KG/M3 FOR HOT FACE TEMP. UPTO 400°C
2. 120-150 KG/M3 FOR HOT FACE TEMP. ABOVE 400°C

CLADDING MATERIAL: ALUMINIUM SHEET

DESIGN HEAT LOSS AT
CLADDING SURFACE: 180 KCAL/SQM hr

(S.K.GUPTA)

DATA FOR THERMAL INSULATION FOR TURBINE INTEGRAL PIPING

DOC.NO. 41211490001

REV.00

500 MW STEAM TURBINE PIPING

SL. NO.	SYSTEM DESCRIPTION	O.D. OF PIPE (MM)	HOT FACE TEMP. (DEG.C)	APPROX. LENGTH (M)	VALVES IN LINE		PIPE FITTINGS		
					NOS	SIZE NB (MM)	FLANGES (NOS)	BENDS (NOS)	ELBOWS (NOS)

	SEAL STEAM								

01		13.7	470	5	-	-	-	1	-
02		21.3	100	9	-	-	-	2	-
03		26.7	330	50	-	-	-	10	-
04		26.7	470	50	-	-	-	10	-
05		26.7	500	15	-	-	-	3	-
06		33.4	100	65	2	25	-	13	-
07		33.4	320	1	-	-	-	-	-
08		33.4	500	35	-	-	-	7	-
09		48.3	330	44	-	-	-	9	-
10		48.3	470	200	-	-	-	40	-
11		48.3	500	1	-	-	-	-	2
12		60.3	330	70	-	-	-	14	-
13		73.0	330	2	3	65	-	-	2
14		88.9	330	65	-	-	-	-	18
15		88.9	470	12	-	-	-	-	3
16		114.3	330	73	3	100	3	-	24
17		114.3	500	12	-	-	-	-	-
18		141.3	330	40	-	-	3	-	11
19		141.3	470	30	3	125	5	-	11
20		168.3	100	60	2	150	2	-	13
21		168.3	200	11	-	-	2	-	6
22		168.3	330	24	1	150	1	-	12
23		168.3	470	50	-	-	-	-	12
24		219.1	200	80	-	-	-	-	2
25		219.1	330	14	2	200	-	-	8
26		219.1	470	5	-	-	-	-	1
27		273.1	330	12	1	250	-	-	5
28		323.9	330	56	2	300	-	-	14
29		508	330	3	-	-	-	-	-

TURBINE DRAINAGE SYSTEM

PREPARED BY
(P.S.SHARMA)

APPROVED BY
(S.K.GUPTA)

DATA FOR THERMAL INSULATION FOR TURBINE INTEGRAL PIPING

DOC.NO. 41211490001

REV.00

500 MW STEAM TURBINE PIPING

SL. NO.	SYSTEM DESCRIPTION	O.D. OF PIPE (MM)	HOT FACE TEMP. (DEG.C)	APPROX. LENGTH (M)	VALVES IN LINE		PIPE FITTINGS		
					NOS	SIZE NB (MM)	FLANGES (NOS)	BENDS (NOS)	ELBOWS (NOS)
01		26.7	450	60	-	-	-	12	-
02		33.4	300	68	8	-	-	18	-
03		33.4	350	31	-	-	-	4	-
04		33.4	415	57	-	-	-	9	-
05		33.4	540	18	-	-	-	8	-
06		48.3	300	1	-	-	-	-	-
07		48.3	540	108	6	-	-	18	-
08		60.3	200	40	4	-	-	12	-
09		60.3	350	34	2	-	-	6	-
10		60.3	540	122	6	-	-	16	2
11		73	540	36	4	-	-	7	-
12		323.9	200	31	-	-	-	-	6
13		323.9	450	1	-	-	-	-	-
14		323.9	500	5	-	-	-	-	1
15		711	450	24	-	-	-	-	2

Note: Above data may vary by 5%.

PREPARED BY
(P.S.SHARMA)

APPROVED BY
(S.K.GUPTA)

DRG.NO. 41211483000
REV.NO. 00
DATE: 02/12/02

THERMAL INSULATION SCHEDULE FOR TG INTEGRAL PIPING

PROJECT TITLE: 1X500 MW NTPC / RAMAGUNDAM TPS.

PROJECT STAGE: CONTRACT

SPEC.NO. ST29005

DESIGN PARAMETERS:

COLD FACE TEMPERATURE: 60 DEG C

AMBIENT TEMPERATURE: 45 DEG C

EMISSIVITY OF AL. SHEET: 0.2

WIND VELOCITY: 0.5 M/S

MATERIALS:

INSULATION MATERIAL: LIGHTLY RESIN BONDED ROCKWOOL
AS PER IS:8183

DENSITY : 1. 100 KG/M3 FOR HOT FACE TEMP. UPTO 400°C
2. 120-150 KG/M3 FOR HOT FACE TEMP. ABOVE 400°C

CLADDING MATERIAL: ALUMINIUM SHEET

DESIGN HEAT LOSS AT
CLADDING SURFACE: 180 KCAL/SQM hr

(S.K.GUPTA)

DRG.NO. 41211485000
REV.NO. 00
DATE: 14/01/05

THERMAL INSULATION SCHEDULE FOR TG INTEGRAL PIPING

PROJECT : 500 MW

PROJECT STAGE: CONTRACT

SPEC.NO. ST29005

DESIGN PARAMETERS:

COLD FACE TEMPERATURE: 60 DEG C

AMBIENT TEMPERATURE: 42.5 DEG C

EMISSIVITY OF AL. SHEET: 0.4

WIND VELOCITY: 0.5 M/S

MATERIALS:

INSULATION MATERIAL: LIGHTLY RESIN BONDED ROCKWOOL
AS PER IS:8183

DENSITY : 1. 100 KG/M3 FOR HOT FACE TEMP. UPTO 400°C
2. 120-150 KG/M3 FOR HOT FACE TEMP. ABOVE 400°C

CLADDING MATERIAL: ALUMINIUM SHEET

DESIGN HEAT LOSS AT
CLADDING SURFACE: 180 KCAL/SQM hr

(S.K.GUPTA)