

ANNEXURE-A		APPROVED SOURCES		
Mat Group	Vendor No	VENDOR NAME	Agent/ Manufacturerer	Specification
		STRUCTURALS, BEAMS, CHANNELS		
STCAB	10922	ABHISHEK STEEL LTD.	Manufacturer	IS2062
	20258	CORUS UK LIMITED	Manufacturer	IS2062
	20261	DAEWOO CORPORATION	Manufacturer	IS2062
	20269	DILLING-GTS VENTES	Trader	IS2062
	20289	FERROMET	Manufacturer	IS2062
	11919	HARIYANA METALS LTD	Manufacturer	IS2062
	20326	HYUNDAI CORPORATION	Manufacturer	IS2062
	11927	INDIAN IRON & STEEL CO.LTD.	Manufacturer	IS2062
	11934	ISPHAT PROFILES INDIA LTD.	Manufacturer	IS2062
	12439	JINDAL STEEL & POWER LIMITED	Manufacturer	IS2062
	11939	JINDAL STEEL & POWER LIMITED	Manufacturer	IS2062
	14771	KANISHK STEEL INDUSTRIES Ltd.,	Manufacturer	IS2062
	20357	KRUPP HOESCH STAHL EXPORT GMBH	Manufacturer	IS2062
	20387	METAL ONE CORPORATION	Trader	IS2062
	20388	METAEXPORTIMPORT S.A.	Trader	IS2062
	20395	MOBAR ENGINEERING GMBH	Manufacturer	IS2062
	11502	PRABHU STEEL INDUSTRIES LTD	Manufacturer	IS2062
	12000	PRAKASH INDUSTRIES LTD	Manufacturer	IS2062
	90030	Power Sector (Southern Region)	Trader	IS2062
	91051	R.S.JHAVERI & CO.	Agent	IS2062
	11540	RASHTRIYA ISPAT NIGAM LIMITED	Sales Office	IS2062
	17147	RASHTRIYA ISPAT NIGAM LIMITED,	Sales Office	IS2062
	20449	SALZGITTER MANNESMANN	Manufacturer	IS2062
	11609	SHAH BROTHERS & CO	Trader	IS2062
	10259	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS2062
	91064	STEEL COMMODITIES CORPORATION	Agent	IS2062
	14103	SUJANA METAL PRODUCTS LIMITED	Manufacturer	IS2062
	20059	SUMITOMO CORPORATION	Trader	IS2062
	10267	SUMITOMO CORPORATION INDIA PVT	Agent	IS2062
	15928	THE INDIAN IRON & STEEL CO. LTD.,	Manufacturer	IS2062
	11929	THE INDIAN IRON & STEEL CO.LTD	Manufacturer	IS2062
	11928	THE INDIAN IRON & STEEL CO.LTD	Sales Office	IS2062
	12030	THE TATA IRON & STEEL CO.LTD.	Sales Office	IS2062
	20060	THYSSEN KRUPP STAHLUNION GMBH	Trader	IS2062
	20501	TRADE ARBED EXPORT S.A.	Manufacturer	IS2062
	14770	UNITED METAL INDUSTRIES,	Manufacturer	IS2062
	10289	V.D.SWAMI AND COMPANY LIMITED	Agent	IS2062
		PLATES & STRUCTURALS		
Mat Group	Vendor No	VENDOR NAME	Agent/ Manufacturerer	Specification
STCS1	10259	STEEL AUTHORITY OF INDIA LTD	Sales Office	SA515, SA516, SA203, SA204, SA240
	11912	STEEL AUTHORITY OF INDIA LTD	Manufacturer	SA515, SA516, SA203, SA204, SA240
	11958	LLOYDS STEEL INDUSTRIES LTD	Manufacturer	SA515, SA516, SA203, SA204, SA240
	11959	LLOYD STEEL INDUSTRIES LTD.,	Manufacturer	SA515, SA516, SA203, SA204, SA240
	13336	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	SA515, SA516, SA203, SA204, SA240
	14370	ULTRATEST SYSTEMS LTD.,	Manufacturer	SA515, SA516, SA203, SA204, SA240
	14790	STEEL AUTHORITY OF INDIA LIMITED,	Sales Office	SA515, SA516, SA203, SA204, SA240
	15064	ESSAR STEEL LIMITED,	Manufacturer	SA515, SA516, SA203, SA204, SA240
	15871	STEEL AUTHORITY OF INDIA	Sales Office	SA515, SA516, SA203, SA204, SA240
	20060	THYSSEN KRUPP STAHLUNION GMBH	Trader	SA515, SA516, SA203, SA204, SA240
	20258	CORUS UK LIMITED	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20269	DILLING-GTS VENTES	Manufacturer	SA515, SA516, SA203, SA204, SA240, ASTMA36
	20275	DUFERCO S.A.	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20290	STEEL FORCE SOUTH ASIA N.V	Trader	SA515, SA516, SA203, SA204, SA240
	20332	INDUSTEEL FRANCE	Manufacturer	SA515, SA516, SA203, SA204, SA240, ASTMA36
	20339	LNM MARKETING FZE	Manufacturer	SA515, SA516, SA203, SA204, SA240, ASTMA36
	20387	METAL ONE CORPORATION	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20395	MOBAR ENGINEERING GMBH	Manufacturer	SA515, SA516, SA203, SA204, SA240, ASTMA36
	20438	REINER BRACH GMBH & CO.KG	Manufacturer	SA515, SA516, SA203, SA204, SA240, ASTMA36
	20449	SALZGITTER MANNESMANN	Manufacturer	SA515, SA516, SA203, SA204, SA240

	20501	TRADE ARBED EXPORT S.A.	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20502	TRADE LINK COMPANY	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20810	SAMSUNG CORPORATION	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20911	ULTRATEST SYSTEMS LTD	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20975	JSC ILLYICH IRON AND STEEL WORKS.	Manufacturer	SA515, SA516, SA203, SA204, SA240
	20976	OJSC DONETSK IRON AND STEEL WORKS.	Manufacturer	SA515, SA516, SA203, SA204, SA240
	21660	MEGASTEEL SDN BHD,	Manufacturer	SA515, SA516, SA203, SA204, SA240
	91008	CORUS LIASION SERVICES (INDIA) LTD	Sales Office	SA515, SA516, SA203, SA204, SA240
	91009	D.K.CORPORATION	Agent	SA515, SA516, SA203, SA204, SA240
	91018	STEEL FORCE SOUTH ASIA	Agent	SA515, SA516, SA203, SA204, SA240
	91020	HANSA INDUSTRIES PVT LTD	Agent	SA515, SA516, SA203, SA204, SA240
	91035	MITSUBISHI CORPORATION INDIA PVT.LT	Sales Office	SA515, SA516, SA203, SA204, SA240
	91036	MOBAR INDIA LTD	Agent	SA515, SA516, SA203, SA204, SA240
	91047	INDUSTEEL PLATES INDIA DELHI PVT. L	Agent	SA515, SA516, SA203, SA204, SA240
	91051	R.S.JHAVERI & CO.	Agent	SA515, SA516, SA203, SA204, SA240
	91058	SAMSUNG CORPORATION	Sales Office	SA515, SA516, SA203, SA204, SA240
	91064	STEEL COMMODITIES CORPORATION	Agent	SA515, SA516, SA203, SA204, SA240
	91068	TRADE ARBED INDIA (LUXEMBOURG)	Sales Office	SA515, SA516, SA203, SA204, SA240
	91230	DHAMM STEEL SERVICES PVT LTD	Agent	SA515, SA516, SA203, SA204, SA240
	91355	INTER TRADE,	Agent	SA515, SA516, SA203, SA204, SA240
	91435	REINER BRACH GmbH & Co KG	Manufacturer	SA515, SA516, SA203, SA204, SA240
		PLATES & SHEETS - CARBON		
Mat Group	Vendor No	VENDOR NAME	Agent/ Manufacturer	Specification
	10126	KALPANA STEEL CENTRE	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	10259	STEEL AUTHORITY OF INDIA LTD	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	10262	STEELMET INDUSTRIES	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	11047	CHAMPAK STEEL & ENGINEERING CO	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	11682	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	11912	STEEL AUTHORITY OF INDIA LTD	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	11958	LLOYDS STEEL INDUSTRIES LTD	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	11959	LLOYD STEEL INDUSTRIES LTD.,	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	12952	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	13335	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	13336	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	14307	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	14308	STEEL AUTHORITY OF INDIA LTD	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	14790	STEEL AUTHORITY OF INDIA LIMITED,	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	14857	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	15064	ESSAR STEEL LIMITED,	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	15305	STEEL AUTHORITY OF INDIA LIMITED	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	15871	STEEL AUTHORITY OF INDIA	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	15928	THE INDIAN IRON & STEEL CO. LTD.,	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	16754	STEEL AUTHORITY OF INDIA LIMITED,	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	17400	STEEL AUTHORITY OF INDIA LIMITED,	Sales Office	IS277, 513, 1079, 2002, 2062, 3502
	20060	THYSSEN KRUPP STAHLUNION GMBH	Trader	IS277, 513, 1079, 2002, 2062, 3502
	20211	ALLEGHENY TECHNOLOGIES TAIWAN INC	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	20220	BAOSTEEL TRADING EUROPE GMBH	Trader	IS277, 513, 1079, 2002, 2062, 3502
	20258	CORUS UK LIMITED	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	20269	DILLING-GTS VENTES	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	20290	STEEL FORCE SOUTH ASIA N.V	Trader	IS277, 513, 1079, 2002, 2062, 3502
	20387	METAL ONE CORPORATION	Trader	IS277, 513, 1079, 2002, 2062, 3502
	20449	SALZGITTER MANNESMANN	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502, ASTMA36
	20501	TRADE ARBED EXPORT S.A.	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	20810	SAMSUNG CORPORATION	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	21133	PT GUNUNG RAJA PAKSI	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	21660	MEGASTEEL SDN BHD,	Manufacturer	IS277, 513, 1079, 2002, 2062, 3502
	91047	INDUSTEEL PLATES INDIA DELHI PVT. L	Agent	IS277, 513, 1079, 2002, 2062, 3502
	91051	R.S.JHAVERI & CO.	Agent	IS277, 513, 1079, 2002, 2062, 3502
	91064	STEEL COMMODITIES CORPORATION	Agent	IS277, 513, 1079, 2002, 2062, 3502
	91235	JBB INTERNATIONAL,	Agent	IS277, 513, 1079, 2002, 2062, 3502
	91355	INTER TRADE,	Agent	IS277, 513, 1079, 2002, 2062, 3502

ANNEXURE B
QUALITY WORK INSTRUCTIONS

SUPPLY OF STRUCTURES, AUTO WELDBOXES & BEAMS, COLUMNS & DUCTS FOR 250 & 500 MW BOILERS				
SL. NO.	TYPE OF DOCUMENT	REF. NO.	REVISION	DESCRIPTION
1.	Quality Plan	SQP: NP:01	03	BOILER DUCTS & HOPPERS.
2.	Quality Control Procedure	QCP: 002	02	Non-Pressure part work.
3.	Standard Inspection Procedure	SIP: NP:07	01	Welding qualification for Structural application.
4	Standard Inspection Procedure	SIP: NP:05	01	Procedures for Kerosene Leak test
5	Standard Inspection Procedure	SIP: NP:06	01	Procedures for visual inspection of non-pressure parts
6.	Standard Painting Scheme	SIP: PP: 22	04*	Procedure for Surface Preparation and Painting
7.	Special Painting scheme	QPLC3PS06 49-651	00	NTPC Aravali –Jhajjar Painting scheme
8.	Raw material TDC	TDC:0: 313	01	Raw material requirements for manufacture of Columns and other structural components by sub Contractors with vendor's materials.
9.	Quality Plan	SQP: NP:06	03	Columns and Ceiling Girders
10.	Standard Inspection Procedure	SIP: NP:02	02	Trial assembly of Columns Ceiling Girders monorail and runway beams
11.	Quality Plan	SQP: NP:07	03	General Structural
12.	Standard inspection Procedure	SIP: NP:09	01	Trial assembly of Diagonal bracing
13.	Contract Inspection Procedure	CIP: 33	07	Process Control of Welding of Columns and Ceiling girders (for NTPC)
14	Contract Quality Plan	CQP: 1476	04	Ceiling Girders, Columns – Horizontal and built up beams (for NTPC)

* SIP: PP:22 is our General painting procedure. However, special painting with blast cleaning is required for some of the customers, similar to projects for NTPC as given in Sl. No. 7.

Note: For full details please refer to the CD

ANNEXURE "C"		APPROVED IST OF VENDORS FOR PAINTS		
Mat Group	Material Group Description	Vendor No	VENDOR NAME	Agent/ Manufacturer
PGPH1	HR.AI.Paint Gr-I	10323	STAR PAINT & OIL INDUSTRIES	Manufacturer
		10242	SHALIMAR PAINTS LTD.	Manufacturer
PGPH1	HR.AI.Paint Gr-I	10031	BERGER PAINTS INDIA LTD.,	Manufacturer
PGPH2	H.R.ALUMINIUM PAINTS	10442	ASIAN PAINTS LTD	Manufacturer
		10323	STAR PAINT & OIL INDUSTRIES	Manufacturer
		10242	SHALIMAR PAINTS LTD.	Manufacturer
		10095	KANSAI NEROLAC PAINTS LIMITED,	Manufacturer
PGPH2		10031	BERGER PAINTS INDIA LTD.,	Manufacturer
PGPH3		10442	ASIAN PAINTS LTD	Manufacturer
		10324	BOMBAY PAINTS LTD	Manufacturer
		10323	STAR PAINT & OIL INDUSTRIES	Manufacturer
		10242	SHALIMAR PAINTS LTD.	Manufacturer
		10095	KANSAI NEROLAC PAINTS LIMITED,	Manufacturer
PGPH3	H.R.ALUMINIUM PAINTS	10031	BERGER PAINTS INDIA LTD.,	Manufacturer
PGPTC	:PAINTS & THINNER	10635	PASU MEENA PAINTS INDUSTRIES	Manufacturer
		10442	ASIAN PAINTS LTD	Sales Office
		10325	SRI MEENAAKSHI PAINT INDUSTRIES	Manufacturer
		10324	BOMBAY PAINTS LTD	Sales Office
		10308	WESTERN INDIA PAINT& COLOUR CO. (P)	Manufacturer
		10268	SUNDARAM PAINTS PVT LTD	Manufacturer
		10242	SHALIMAR PAINTS LTD.	Manufacturer
		10174	NOVAA PAINTS	Manufacturer
		10095	KANSAI NEROLAC PAINTS LIMITED,	Manufacturer
PGPTC	:PAINTS & THINNER	10031	BERGER PAINTS INDIA LTD.,	Sales Office
PGPTE	EPOXY BASED PAINTS &	10865	SIGMAKALON INDIA PVT.LTD.,	Manufacturer
		10442	ASIAN PAINTS LTD	Sales Office
		10324	BOMBAY PAINTS LTD	Sales Office
		10242	SHALIMAR PAINTS LTD.	Manufacturer
		10031	BERGER PAINTS INDIA LTD.,	Sales Office
PGPTE	EPOXY BASED PAINTS &	10007	AKZO NOBEL COATINGS INDIA PVT. LTD	Manufacturer
PGPTF	EPOXY FINISH PAINTS	10865	SIGMAKALON INDIA PVT.LTD.,	Manufacturer
		10442	ASIAN PAINTS LTD	Sales Office
		10324	BOMBAY PAINTS LTD	Sales Office
		10242	SHALIMAR PAINTS LTD.	Manufacturer
		10056	CHEMGUARD COATINGS LIMITED,	Manufacturer
		10031	BERGER PAINTS INDIA LTD.,	Sales Office
PGPTF	EPOXY FINISH PAINTS	10007	AKZO NOBEL COATINGS INDIA PVT. LTD	Manufacturer
PGPTP	SPECIAL PRIMER PAINT	10865	SIGMAKALON INDIA PVT.LTD.,	Manufacturer
		10442	ASIAN PAINTS LTD	Sales Office
		10324	BOMBAY PAINTS LTD	Sales Office
		10242	SHALIMAR PAINTS LTD.	Manufacturer
		10031	BERGER PAINTS INDIA LTD.,	Sales Office
PGPTP	SPECIAL PRIMER PAINT	10007	AKZO NOBEL COATINGS INDIA PVT. LTD	Manufacturer
PGRPF	PSS:RUST PREV.FLUID	10835	INDIAN OIL CORPORATION LIMITED	Manufacturer
		10308	WESTERN INDIA PAINT& COLOUR CO. (P)	Manufacturer
		10268	SUNDARAM PAINTS PVT LTD	Manufacturer
PGRPF	RUST PREV.FLUID	10192	PLASTIPEEL CHEMICALS & PLASTIC	Manufacturer
NOTE As far as possible, for all industrial paints, primers, intermediate and finish paints shall be procured (and used) from the same supplier to accommodate compatability with each other.				

	ANNEXURE "D "	APPROVED LIST OF ELCTRODES AND VENDORS		
	SPECIFICATION	VENDOR NO	MANUFACTURING COMPANY	BRAND NAME
MIGW7	ER70S-6 CO2 WIRE	10785	ADOR WELDING LIMITED	AUTOMIG - 1
MIGW7	ER70S-6 CO2 WIRE	14791	ANAND ARC ELECTRODES PVT. LTD.,CHENNAI.	ANAND MIG 1
MIGW7	ER70S-6 CO2 WIRE	10081	ESAB INDIA LTD.,CHENNAI	ESAB MW1
MIGW7	ER70S-6 CO2 WIRE	16166	EVERSHINE WIRES	SHINE ARC -1
MIGW7	ER70S-6 CO2 WIRE	16661	KLINWELD WIRES PVT. LTD.,MUMBAI.	KLINWELD.
MIGW7	ER70S-6 CO2 WIRE	15100	MANTEK WIRESS	MANTEK MIG
MIGW7	ER70S-6 CO2 WIRE	13906	MARUTI WELD LTD.	ER 70S-6
MIGW7	ER70S-6 CO2 WIRE	14340	NALLI ARC INDUSTRIE	NALLI ARC
MIGW7	ER70S-6 CO2 WIRE	16662	NATIONAL ENGINEERING ENTERPRISES, JAMSHEDPUR	CARBOMIG S6
MIGW7	ER70S-6 CO2 WIRE	15810	NOUVEAX INDUSTRIES (P) LTD,KANGAYAM	NOUVARC
MIGW7	ER70S-6 CO2 WIRE	13693	RASI ELECT.,CHENNAI	RASI CO2
MIGW7	ER70S-6 CO2 WIRE	14428	SHAKUNT ENTERPRISES PVT LTD,LUDHIANA.	SANWALKA.
MIGW7	ER70S-6 CO2 WIRE	16575	STANDARD WIRE PRODUCTS.	STAR
MIGW7	ER70S-6 CO2 WIRE	15085	VOLTARC ELECTRODE PVT. LTD.,TIRUPATHI	AUTOFIL - 6
MIGW7	ER70S-6 CO2 WIRE	14455	WIRE & WIRE PRODUCTS, CHENNAI	ESSARC
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	10785	ADOR WELDING LIMITED	AUTOMIG Gr. II
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	12184	LAKSHMI CHEMICALS INDS., TRICHY	LAXMI FLUX
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	13691	MANTEK WELDED FLUX CO	MANTEK - 22
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	14593	RMH CHEMICAL,TRICHY-15	RMH Autoweld Gr.I
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	14309	S.CHEM&ALLIED PRODUCTS PRIVATE. LTD	SURE FLUX GP
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	11701	SUPER ELEC INDS, TRICHY	SUPER S41
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	11701	SUPERWELD PRODUCTS, PULIVALAM	SWP40T
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	15099	THERMIT ALLOYS LTD., SHIMOGA	CONWELD - RM
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	15810	NOUVARC INDUSTRIES (P) LTD. KANGAYAM	NOUVOFLUX
STRFL	SAW FLUX FOR STRUCTURAL APPLICATION	13211	D&H WELDING ELECTRODES (INDIA) LTD.	SUPERMELT II
WCC01	E6013	10785	ADOR WELDING LIMITED	METALBOND
WCC01	E6013	14429	ALPHA FLUX AND ELECTRODES,THURAIYUR.	WELDER-G

WCC01	E6013	13763	CLASSIC ELECTRODES (I) PVT LTD. KOLKATTA	CLASSIC 6013 PLUS
WCC01	E6013	10774	D&H SECHERON ELECTRODES PVT LTD.	NORMA
WCC01	E6013	13211	D&H WELDING ELECTRODES (INDIA) LTD.	STANDARD
WCC01	E6013	15084	DWEKAM ELECTRODES LTD.	DK 13
				ESAB FERRO SPEED PLUS
WCC01	E6013	10081	ESAB INDIA LTD	ELECTRA-6
WCC01	E6013	11881	FUSION ENGG. PRODUCT LTD.	GEECON PINK
WCC01	E6013	13690	GEE LTD.,THANE	REGULAR-S
WCC01	E6013	11227	HONAVAR ELECTRODES, CHENNAI	MAILARC – 13R
WCC01	E6013	11378	MAILAM INDIA LTD	MANGALAM E 6013
WCC01	E6013	11380	MALU ELECTRODES PVT.LIMITED	MANTEK GP-13
WCC01	E6013	14040	MANTEK ELECTRODES PRIVATE LTD.	MARUTHI 6013 X
WCC01	E6013	15083	MARUTHI ELECTRODES (P) LTD	MARUTI 44
WCC01	E6013	13906	MARUTI WELD LIMITED. NEW DELHI	STEELON STD
WCC01	E6013	11420	MODI ARC ELECTRODES CO.	MADAL ARC
WCC01	E6013	15088	NIVETHA ELECTRODES. TIRUCHY-7	RASI E6013
WCC01	E6013	13693	RASI ELECT.,CHENNAI	ROYAL S
WCC01	E6013	13911	ROYAL ARC ELECTRODES PVT. LTD	SUNSHINE E-6013
WCC01	E6013	15086	SRI RENGIA ELECTRODES (P) LTD	SUNCRAFT E 6013
WCC01	E6013	15080	SUNCRAFT ELECTRODES PVT.LTD. TRICHY	SUNLINE-27
WCC01	E6013	15081	TRICHY SRI JEEVA ELECTRODES	BEST ARC MS11
WCC01	E6013	15087	V.N.C. ELECTRODES . KARUR	SPEED ARC
WCC01	E6013	15085	VOLTARC ELECTRODE,TIRUPATHI	JACKSON 5
WCC01	E6013	15082	ORION ELECTRODES MANUFACTURING CO.	WA - 6013 - S
WCC01	E6013	14575	WELD ALLOY PRODUCTS,UP	EXCEL - 13S.
WCC05	E6013	16548	WELD EXCEL INDIA LTD	RAJCORD - 13S
WCC05	E6013	15090	RAJ KESARI ELECTRODES PRIVATE LTD	VATSARC 19 PLUS
WCC05	E6013	15102	SOLARC WELD RODS	MEDIO
WCC02	E6013 (ATTEST)	10774	D&H SECHERON ELECTRODES PVT LTD.	SUPABASE
WCC02	E6013 (ATTEST)	10785	ADOR WELDING LIMITED	ESAB VORDIAN
WCC02	E6013 (ATTEST)	10081	ESAB INDIA LTD	REGULAR-SS
WCC02	E6013 (ATTEST)	11227	HONAVAR ELECTRODES LTD	STEELON ULTRA
WCC02	E6013 (ATTEST)	11420	MODI ARC ELECTRODES CO.	INDOTHERME
WCC04	E7016	10774	D&H SECHERON ELECTRODES PVT LTD.	ESAB-56
WCC04	E7016	10081	ESAB INDIA LTD	SUPABASE 7018
WCC05	E7018	10785	ADOR WELDING LIMITED	ANAND THERME
WCC05	E7018	14791	ANAND ARC ELECTRODES PVT LTD., THANE	BHEL-7018
WCC05	E7018	10036	BHARAT HEAVY ELECTRICALS LTD	

WCC05	E7018	10774	D&H SECHERON ELECTRODES PVT LTD.	SUPRA THERME
WCC05	E7018	13211	D&H WELDING ELECTRODES(I) LTD,INDORE	Super-LH
WCC05	E7018	15084	DWEKAM,CHENNAI	DK-18
WCC05	E7018	10081	ESAB INDIA LTD	ESAB-36H
WCC05	E7018	13690	GEE LIMITED	GRICON GREEN
WCC05	E7018	11227	HONAVAR ELECTRODES LTD	ULTIMATE-18
WCC05	E7018	15091	MAGNA ENGG PROD. P LTD,VIJAYAWADA	MAGNA-8
WCC05	E7018	11378	MAILAM INDIA, PONDICHERRY	MAIL ARC-18
WCC05	E7018	14040	MANTEK ELECTRODS PVT. LTD., TRICHY	MANTEK LH - 18.
WCC05	E7018	15083	MARUTHI ELECTRODES (P) LTD	MARUTHI - 7018
WCC05	E7018	13906	MARUTI WELD LIMITED	ULTRA -7018
WCC05	E7018	11420	MODI ARC ELECTRODES CO.	MODI-7018
WCC05	E7018	15090	RAJ KESARI ELECTRODES PRIVATE LTD	SUPERLET - 18
WCC05	E7018	13693	RASI ELECT.,CHENNAI	RASI E7018 LH
WCC05	E7018	13911	ROYAL ARC ELECTRODES PVT LTD., THANE	ROYAL THERME
WCC05	E7018	15102	SOLARC WELD RODS	SUPRADYNE
WCC05	E7018	15833	THIRUMALA ELECTRODES Co., TRICHY.	SEVEN ARC - 18
WCC05	E7018	15085	VOLTARC ELECTRODE,TIRUPATHI	SUPERARC
WCC05	E7018	14575	WELD ALLOY PRODUCTS,UP	WA 7018
WCC05	E7018	16548	WELD EXCEL INDIA LTD	EXCEL - 18.
WCC05	E7018	15089	WELDCRAFT PRIVATE LIMITED	MAXIDURE-7018
WCC05	E7018	15089	WELDCRAFT PRIVATE LIMITED	
WCC06	E7018-1	10785	ADOR WELDING LIMITED	TENALLOY
WCC06	E7018-1	10774	D&H SECHERON ELECTRODES PVT LTD.	SUPRA THERME (SPL)
WCC06	E7018-1	11227	HONAVAR ELECTRODES LTD	ULTIMATE-18 SPL

SPECIAL INSTRUCTIONS TO TENDERERS**IF DESIRED, TENDERER MAY DEPUTE THEIR REPRESENTATIVE FOR
'TENDER OPENING' WITH PROPER AUTHORISATION**

1. All the prices shall be given both in words and figures. In case of any difference between the two, the offer will be rejected.
2. Offers shall be duly signed by a legally authorised principal officer(s) of the Firm and by affixing the Rubber Stamp.
3. The tenderers shall keep the offer valid for a minimum period of 6 (six) months from the closing date of the tender.
4. The tenderer shall acquaint himself with the conditions / limitations and official regulations under which or conforming to which the jobs are to be performed and shall examine carefully all the information as may be furnished to them in writing from time to time.
5. The tenderer shall acquaint himself with applicable Acts.
6. No deviation or change from the tender conditions will be entertained and BHEL has the right to reject such tenders.
7. BHEL reserves the right to restrict to the lowest bidder for negotiation. BHEL also reserves the right to distribute the work to one or more Vendors for award of contract as required.
8. Tenderers are requested to indicate their reasonable offers and it may please be noted that offers with unreasonable/abnormal rates are liable for total rejection at the discretion of BHEL without assigning any reason thereof.
9. Insertions, postscripts, additions and alterations in the tender shall not be recognised unless received prior to the closing date of the tender and in time and confirmed by the tenderer's signature.
10. Tenderer shall bear all cost incidental to preparation, submission and negotiations against the tender.
11. Offers containing corrections or alterations in the documents are liable to be rejected. Any correction made by the tenderer(s)/his//her/their Representative, must be authenticated by the tenderer who has signed the original offer. The tenderer shall authenticate all pages of the offer by putting his initials or the Firm's official rubber stamp.
13. **A separate certificate is to be attached with the offer to the effect that the Enquiry terms and conditions have been fully read and understood and the prices quoted are in accordance with the same.**
14. Whether the tender is accepted or not, tenderer shall not be entitled to claim any costs, charges, expenses incidental or incurred by him through or in connection with the submission of the Tender even if BHEL withdraws the Tender before or after the receipt of the offers.
15. As a policy BHEL is not registering any power of attorney issued by contractors/suppliers in favour of their bank for the collection of invoice amounts on behalf of contractors/suppliers and merely because BHEL had acted upon any such request by the party or their bankers does not constitute any legal right or binding on BHEL for any acts of omissions and commissions or failure to act upon it or for any payment made directly to the party. If any banker includes BHEL also as a party to any such dispute between the banker and the party, all legal and incidental expenses thereof will be recovered from the concerned parties only.
16. Tenderers contacted in this tender do not automatically qualify for consideration just because they are found to be the lowest in the Tender. BHEL reserves the right to reject any offers without assigning any reasons.
17. **Conditional tenders are liable to be rejected.**



AN ISO 9001
COMPANY

BHARAT HEAVY ELECTRICALS LIMITED
(A GOVT. OF INDIA UNDERTAKING)
HIGH PRESSURE BOILER PLANT, TIRUCHIRAPPALLI - 620 014
DEPT: OUTSOURCING

(OFF) 91 (0431) 2574229

FAX: 91 (0431) 252 0517

E-MAIL: vsridharan@bheltry.co.in

ANNEXURE - F

GENERAL CONDITIONS OF CONTRACT

I DEFINITIONS

Throughout these conditions and in the specifications "THE CONTRACTEE" means the Bharat Heavy Electricals Limited, acting through the Sr.Dy. General Manager/OUT SOURCING, Tiruchirapalli-14, unless the context otherwise provides "THE CONTRACTOR" means the person, firm or company with whom the order for Structural work is placed and shall be deemed to include the Contractor's successors (approved by the Contractee) representatives, heirs, executors and administrators as the case may be unless excluded by the terms of the Contract. "DRAWINGS" means the drawings exhibited or provided for the guidance of the Contractor.

II EXECUTION

The whole contract is to be executed in the most approved substantial and workman like manner to the entire satisfaction of the Contractee, or the Inspecting Officer who shall have power to reject any of the Structurals of which he may disapprove; and his decision thereon and any question as to the true intent and meaning of the specifications of drawing or of the work necessary for the proper completion of the contract, shall be final and conclusive. The contractee may require alteration if any to be made during the progress of work and should these alterations be such that either party to the contract considers an alteration in charges justified such alteration shall not be carried out until amended cost have been submitted by contractor and accepted by the Contractee. Should the Contractor proceed to work without obtaining the consent of the Contractee in writing to an amended cost of work the Contractor shall be deemed to have agreed to execute the work at such charges as may be considered reasonable by the Contractee.

III FORCE MAJEURE

If any time during the continuance of this Contract the performance in whole or part by either part of any obligation under this contract shall be prevented or delayed by reasons of war, hostilities, acts of public enemy, civil, commotions, sabotage, fires, floods, explosions, epidemic quarantine restrictions or acts of God (herein referred to as events), then provided the notice of the happenings of any such events is given by either party to other party within 21 (Twenty one) days from the date of occurrence thereof, either party shall by reason of such event not be entitled to terminate this contract, nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance and delivery under the contract shall be resumed as soon as

Practicable after such event has come to an end or ceased to exist and the decision of the Contractee as to whether the deliveries have been so resumed or not shall be final and conclusive. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by the Contractee subject to prompt notification by the Contractor to the Contractee of the particulars of the events and supply to the Contractee if required of any supporting evidence. Any waiver of time in respect of partial instalment shall not be deemed to be a waiver of time in respect of remaining work schedules.

IV TERMINATION OF CONTRACT

If as a result of difficulty in procurement of materials or due to force majeure reasons or any other reasons whatsoever the contractor is unable to keep the delivery schedule of the Contractee, the Contractee to the extent considered necessary may grant extension of time. Should there be delay in work, beyond the extended date of delivery, it shall be open to the Contractee to terminate the contract in part or full and make other arrangements for executing work at the cost and risk of the Contractor.

V INTERPRETATION

The Contractee shall decide any dispute or difference of opinion in respect of the interpretation, effect or application of this particular condition of the Contract or the amount recoverable hereunder from the contractor and the decision shall be final and conclusive.

VI BOOK EXAMINATION CLAUSE:

The Contractor shall whenever required produce or cause to be produced for examination by any Officer of the Contractee authorized in that behalf, any cost or other account book or account voucher, receipt letter, memorandum, paper or writing or any copy extract from any such document and also furnish information and returns verified in such a manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining the cost of execution of this contract (the decision of such officer of the Contractee on this question or relevancy of any documents, information or return being final and binding on the Parties). The obligation imposed by this clause is without prejudice to the obligation of the contract / purchase order or under any status rules or orders binding the contractor. The contractor shall if the authorized officer or the Contractee so required (whether before or after the prices have been finally fixed), afford facilities to the officer of the Contractee concerned to visit the contractors works for the purpose of examining the process of manufacture and estimate or ascertaining the cost for production of the articles, if any portion of the work be carried out by a sub contractor of any subsidiary of an allied firm or company, the authorized officer of the Contractee shall have power to secure the books of such sub contractor, or any subsidiary or allied firm or company shall be open to his inspection.

VII SET-OFF CLAUSES

Payment shall be subject to the deduction of any amount for which the Contractor is liable under this Contract, or any contract in respect of which Bharat Heavy Electricals Limited is the Contractee.

VIII LAWS GOVERNING THE CONTRACT

The Laws of Government of India in force shall govern the Contract. Irrespective of the place of the execution of the Contract place, of payment under the contract, the contract shall be deemed to have been made at the place at which the acceptance of the tender has been issued.

IX JURISDICTION OF THE COURT

The Courts of the place from where the acceptance of the tender is issued shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.

X THE GLOBAL COMPACT

Global Compact is a signature initiative of United Nations Secretary General Kofi Annan and Four United Nation Agencies:

- ❖ Office of the High Commissioner for Human Rights
- ❖ International Labour Organisation
- ❖ United Nations Environment Programme
- ❖ United Nations Development Programme

This is a broad based initiative and engages:

- ❖ Individual Companies
- ❖ Business Associations
- ❖ International Labour
- ❖ Human Rights, Environment and
- ❖ Development Organisations
- ❖ Academic & Public Policy
- ❖ Institutions and United Nations

The Contractee (BHEL) is a member of this Global Compact. As a participating company, we have the obligation to

- ❖ Support and respect Human Rights within our spheres of influence.
- ❖ Make sure we are not complicit in Human Rights abuses.
- ❖ Make sure we are not employing Forced or compulsory labour.
- ❖ Refrain from employing Child Labour
- ❖ Eliminate discrimination in our hiring and firing policies.
- ❖ Support a precautionary approach to Environmental challenges.
- ❖ Undertake initiatives to promote greater environmental responsibility.
- ❖ Encourage development and diffusion of environmentally friendly Technologies

Contractor shall also ensure to fall in line with the above principles.

LIST OF DRAWINGS**PART – A – BOILER STRUCTURES**

S. No.	Drawing No.	Remarks	Project
1	1-36-322-02893	Typical Drawing	0390, 0391 & 0636
2	0-36-322-06982	Typical Drawing	0390, 0391 & 0636
3	0-36-322-06983	Typical Drawing	0390, 0391 & 0636
4	0-36-322-06984 / 01	Typical Drawing	0390, 0391 & 0636
5.	0-35-230-05695 / 01	Typical Drawing	0390 & 0391
6.	2-35-511-00775 / 02	Typical Drawing	0390 & 0391

PART – B - DUCTS

S. No.	Drawing No.	Remarks	Project
1	1-48-112-39322	Typical Drawing	0390, 0391 & 0636
2	1-48-112-39318	Typical Drawing	0390, 0391 & 0636
3	3-48-112-63770	Typical Drawing	0390, 0391 & 0636
4	3-48-112-63823	Typical Drawing	0390, 0391 & 0636
5.	2-48-112-45768	Typical Drawing	0390, 0391 & 0636
6.	1-48-222-35972	Typical Drawing	0390, 0391 & 0636
7.	1-48-222-35959	Typical Drawing	0390, 0391 & 0636
8.	0-48-207-32556	Typical Drawing	0390, 0391 & 0636

PART – C – AUTO WELD & COLUMNS

S. No.	Drawing No.	Remarks	Project
1	0-35-130-05816	Typical Drawing	0390 & 0391
2	0-35-130-05814	Typical Drawing	0390 & 0391
3	0-35-110-06047	Typical Drawing	0390 & 0391
4	0-35-110-03964	Typical Drawing	0390 & 0391
5	0-35-110-03959	Typical Drawing	0390 & 0391
6	0-35-110-03960	Typical Drawing	0390 & 0391
7	0-35-140-02933	Typical Drawing	0390 & 0391
7	0-35-140-05891	Typical Drawing	0390 & 0391
8	0-35-140-03956	Typical Drawing	0390 & 0391
9	0-35-111-04873	Typical Drawing	0636
10	0-35-111-04874	Typical Drawing	0636
11	0-35-111-04875	Typical Drawing	0636
12	0-35-111-04876	Typical Drawing	0636
13	0-35-521-05901	Typical Drawing	0633
14	0-35-521-05903	Typical Drawing	0633

PART-D- BUCK STAY ASSEMBLY

S. No.	Drawing No.	Remarks	Project

PART – E – DUCT MANUAL

ANNEXURE "H"								06.05.08
2008-09 PLAN (MT) FOR SUPPLY WITH VENDOR MATERIALS								
SL. NO.	CUST NO	PROJECT	STRUCTURES	AUTO WELD	COLUMNS	DUCTS	TOTAL	STATE LOCATION
(A)		250 MW						
	0397	BONGAIGOAN 1	500	400	600	500	2000	ASSAM
	0398	BONGAIGOAN 2	500	400	600	500	2000	ASSAM
	1204	GOVINDWAL1	150	125	125	100	500	PUNJAB
	1205	GOVINDWAL2	150	125	125	100	500	PUNJAB
	1200	NABINAGAR 1	640	500	750	610	2500	BIHAR
	1201	NABINAGAR 2	640	500	750	610	2500	BIHAR
	1202	NABINAGAR 3	640	500	750	610	2500	BIHAR
	1203	NABINAGAR 4	640	500	1500	860	3500	BIHAR
	1206	SATPURA 10	1350	900	1250	1000	4500	MADHYA PRADESH
	1207	SATPURA 11	1350	900	1250	1000	4500	MADHYA PRADESH
		TOTAL	6560	4850	7700	5890	25000	
(B)		INDUSTRIAL BOILERS						
	0492	IISCO BURNPUR 1	50	100	150	150	450	WEST BENGAL
	0493	IISCO BURNPUR 2	50	100	150	150	450	WEST BENGAL
	0494	IISCO BURNPUR 3	100	100	200	200	600	WEST BENGAL
	0495	RINL VIZAG	100	100	150	150	500	ANDHRA PRADESH

	0437	HINDUSTAN ZINC-4	100	300	300	300	1000	RAJASTHAN
	0439	HINDUSTAN ZINC-5	100	250	300	350	1000	RAJASTHAN
	0440	HINDUSTAN ZINC-6	100	250	300	350	1000	RAJASTHAN
		TOTAL	600	1200	1550	1650	5000	
			7160	6050	9250	7540	30000	
(C)		500 MW& Above						
	0660	ANPARA D-2 500 MW	1000	1200	1700	2100	6000	UTTAR PRADESH
	0652	DURGAPUR 1 500 MW				1000	1000	WEST BENGAL
	0653	DURGAPUR 2 500 MW				1000	1000	WEST BENGAL
	0647	JAJJHAR 2 500 MW				1000	1000	HARYANA
	0648	JAJJHAR 3 500 MW				1000	1000	HARYANA
	0647	KODERMA 1 500 MW				1000	1000	JHARKAND
	0648	KODERMA 2 500 MW				1000	1000	JHARKAND
	0663	KORBA WEST 8 500 MW	700	950	1750	1600	5000	CHATTISGARH
		MARWA 2 500 MW		300	700		1000	CHATTISGARH
	0662	MAUDA 2 500 MW		600	1400		2000	MAHARASTRA
	1600	NORTH CHENNAI (600MW)		200	300	500	1000	TAMIL NADU
	0658	UKAI 6 500 MW	700	950	750	1600	4000	GUJARAT
	0655	VALLUR 2 500 MW		800	3500	700	5000	TAMIL NADU
		TOTAL	2400	5000	10100	12500	30000	
		GRAND TOTAL	9560	11050	19350	20040	60000	

<p>The above break up is only for information with regard to composition of the various schedules for 250 Mw and 500MW etc for the orders received as on date. However, during execution of the contract the actual quantum and Schedule/s might vary depending upon the priority and site readiness.</p>	
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ANNEXURE ‘T’

ENQUIRY NO:
OS/ACF/008

M/s

SUPPLY OF BOILER COMPONENTS (60,000 MT):

SL. NO.	SCHEDULE	TENDERED QTY (MTs)		RATE PER MT (RS.)		SPARABLE MONTHLY CAPACITY FOR BHEL (MT)
		250 MW	500 MW	250 MW	500 MW	
01	SUPPLY OF GENERAL FABRICATION OF STRUCTURES AS PER BHEL DRAWINGS AND SPECIFICATION AS DETAILED IN THE ANNEXURE“L” , “M”.&”N”					
02)	SUPPLY OF AUTO WELDED BEAMS AND BOXES WITH MATERIAL AS PER BHEL DRAWINGS AND SPECIFICATION AS DETAILED IN THE ANNEXURE“L” , “M”&”N”.					
03)	SUPPLY OF COLUMNS AFTER ASSEMBLY AS PER BHEL DRAWINGS & SPECIFICATION AS DETAILED IN THE ANNEXURE“L” , “M”&”N”					
04)	SUPPLY OF DUCTS AS PER BHEL DRAWINGS & SPECIFICATION AS DETAILED IN THE ANNEXURE“L” , “M”&”N”					
05)	FREIGHT CHARGES RATE / MT / KM					
06)	RATE FOR SURFACE BLASTING – FINISH Sa 2½ (BEFORE PAINTING) RATE / MT					

- 1) The above rates are quoted after having fully read and understood the enquiry terms and conditions.
- 2) We note that any deviation at a later date will invite disqualification.
- 3) The PVC formula as per Annexure“P” (10Pages) is acceptable to us.
- 4) The quoted rates are the base Price and will be valid for a period of one year from the date of finalization of tender and are subject to escalation as per PVC formula.
- 5) It is certified to deliver 300 MT per Month minimum with major quantities from Sl. No. 2 to 4.

VENDOR’S AUTHORISED SIGNATORY
WITH SEAL

ANNEUXRE - J

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 60 DAYS FROM THE DATE OF COMPLETION OF WARRANTY PERIOD)

PERFORMANCE BANK GUARANTEE

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at "BHEL House", SIRI Fort, New Delhi 110 049) through its High Pressure Boiler Plant Division located at Tiruverumbur, Tiruchirapalli- 620 014 (hereinafter called 'the Company') having entered into a contract withhereinafter called 'the said contractor' which term includes 'suppliers' for the purpose of this Bond and under the terms and conditions of the contract No..... Dt Between BHEL, Trichy and as per the contract, the contractor / supplier is to furnish a performance Bank guarantee for Rs. for the due performance of the equipment to be supplied under the above referred contract and for the fulfillment of all the terms and conditions of the contract, We(indicate the name of the bank) (herein after referred to as the bank) at the request of (Contractor(s)) do here by undertake to pay the company an amount not exceeding Rs.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said contractor (s) of any of the terms and conditions contained in the said agreement.

2. We(indicate the name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the contractor(s) 'failure to perform' the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs._____.

3. We undertake to pay unconditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(indicate the name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till_____Office / Department/ Division of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (I) Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date.

(ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack. Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the bank personally.

6. We(indicate the name of Bank), further agree with the company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. It shall not be necessary for the company to proceed against the contractor before proceeding against the guarantor-bank and the guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained or obtain from the Contractor shall, at the time when proceedings are taken against the guarantor hereunder be outstanding or unrealised.

8. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirapalli.

9. The guarantor hereby declare that it has power to execute this guarantee and the executant has full powers to do so on its behalf under the proper authority granted to him/them by the guarantor

10. We(indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we....., (indicate the name of Bank) have hereunto setout Bank Seal the _____ day _____ month 200

ANNEXURE-K	
MAJOR RAW MATERIALS FOR 500 MW BOILERS	
(D) DUCTS	
MATERIAL DESCRIPTION	
ANGLE 50x50x6 MM	
ANGLE 75 x 75 x 6 MM - IS2062GRA	
ANGLE 150 x 150 x 12 MM - IS2062GRA	
BEAM 125 x 70 - IS2062GRA	
BEAM 150 x 75 - IS2062GRA	
BEAM 200 x 100 - IS2062GRA	
BEAM 250 x 125 - IS2062GRA	
H-BEAM 305X165 - IS2062GRB	
CAF JOINTING GR W/1-1.5 MM	
CHANNEL 75 x 40 MM - IS2062GRA	
CHANNEL 100 x 50 MM - IS2062GRA	
CHANNEL 125 x 65 MM - IS2062GRA	
CHANNEL 150 x 75 MM - IS2062GRA	
CHANNEL 200 x 75MM - IS2062GRA	
CHANNEL 250 x 82 MM - IS2062GRA	
CHANNEL 250 x 82 MM - IS2062GRB	
CHANNEL 300 x 90 MM - IS2062GRA	
CHANNEL 300 x 90 MM - IS2062GRB	
CHANNEL 400 x 100 MM - IS2062GRA	
DIA 10mm-IS2062FE410GRA	
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240	
PIPE OD 88.90 x 5.49 - SA106GRB	
PIPE OD 114.30 x 6.02 - SA106GRB	
PIPE OD 168.30 x 7.11 X 6000 - SA106GRB	
PLATE 10.0 MM - IS2062GRB	
PLATE 10-IS2062 Fe410A	
PLATE 12.0 MM - IS2062GRB	
PLATE 16.0 MM - IS2062GRB	
PLATE 20.0 MM - IS2062GRB	
PLATE 25.0 MM - IS2062GRB	
PLATE 36.0 MM - IS2062GRB	
PLATE 5.0 MM - IS2062GRB	
PLATE 5.00 MM IS2062FE410GRA	
PLATE 6 MM - ASTMA36	
PLATE 6.0 MM - IS2062GRB	
PLATE 6mm-IS 2062 Fe 410A	
PLATE 7 MM - ASTMA36	
PLATE 7.0 MM - IS2062GRB	
PLATE 7.00 MM - IS2062GRA	
PLATE 8.0 MM - IS2062GRB	
PLATE 8.00 MM - IS2062GRA	
ROUND DIA 6.0 MM - IS2062GRA	
ROUND DIA 32.0 MM - SA105	
ROUND DIA 40.0 MM - SA105	
ROUND DIA 50.0 MM - SA105	
ROUND DIA 63.0 MM - SA105	
SHEET 2.5MM - IS1079D	
SHEET 2mm-IS1079 Fe 330	
SHEET 4.00 MM - IS1079	
TUBE 60.8X4.5	
TUBE OD 21.30 x 2.77 MM - SA106GRB.	
TUBE OD 33.40 x 3.38 MM - SA106GRB	
TUBE OD 60.3 X 5.6 X 12150 - SA210GRC	
TUBE OD 76.1 X 4.5 X - ASTMA53 GRB	
TUBE OD 76.1 X 4.5 X 10000 - ASTMA53 GRB	
TUBE OD 76.1 X 4.5 X 10000 - SA210GRA1	
TUBE OD 76.1 X 4.5 X 12000 - ASTMA53 GRB	
TUBE OD 76.1 X 4.5 X 13100 - SA210GRA1	
TUBE OD 76.1 X 4.5 X 14000 - SA210GRA1	
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB	
TUBE OD 76.1 X 4.5 X 5000 - A53GRB	
TUBE OD76.1 X 5.4 X 13100 - SA210GRA1	

ANNEXURE-K
MAJOR RAW MATERIALS FOR 500 MW BOILERS
(C) COLUMNS
MATERIAL DESCRIPTION
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 X 220 - IS2062GRB
CHQ PLATE 5 - IS3502
GP SHEET 1.60 MM - IS277GR120
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
PLATE 10 - ASTMA36
PLATE 10.0 MM - IS2062GRB
PLATE 100 X 2500 X 8000 - ASTMA36
PLATE 10-IS2062 Fe410A
PLATE 12 MM - ASTMA36
PLATE 12.0 MM - IS2062GRB
PLATE 16 - ASTMA36
PLATE 16.0 MM - IS2062GRB
PLATE 20 - ASTMA36
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32 MM - ASTMA36
PLATE 32.0 MM - IS2062GRB
PLATE 36.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 56 X 2000 X 10000 - ASTMA36
PLATE 56.0 MM - IS2062GRB
PLATE 63 X 1800 X 10000 - ASTMA36
PLATE 75 X 2100 X 4300 - ASTMA36
SHEET 1.6 MM - IS513D
SHEET 2.5MM - IS1079D

ANNEXURE-K
MAJOR RAW MATERIALS FOR 250 MW BOILERS
(D) DUCTS
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRA
ERW PIPE OD 273.10 x 6.40 - API5LGRB
ERW TUBE NB 25 MEDIUM-IS1239
ERW TUBE NB 32 MEDIUMX5300-IS1161YST240
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240
ERW TUBE NB 65 LIGHT- IS1239
PIPE OD 88.90 x 5.49 - SA106GRB
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12 MM - ASTMA36
PLATE 16 - ASTMA36
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 6.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 8.0 MM - IS2062GRB
PLATE 8.00 MM - IS2062GRA
ROUND DIA 32.0 MM - SA105
SHEET 2.5MM - IS1079D
SHEET 2mm-IS1079 Fe 330
SHEET 4.00 MM - IS1079
TUBE 60.8X4.5
TUBE OD 21.30 x 2.77 MM - SA106GRB.
TUBE OD 33.40 x 3.38 MM - SA106GRB
TUBE OD 60.3 X 5 X 12150 - SA210GRA1
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB
TUBE OD 76.1 X 4.5 X 5000 - A53GRB

COLUMN BASE PLATE DETAILS					
A) TYPICAL 250 MW					040508
Sr.No	PGMA	COL. NO	BASE PLATE SIZE	BASE PLATE WT IN KGS	SPECIFICATION
1	35110	S6L	1600X1600X75	1507	ASTM A36
2	35110	S7L	1200X1200X75	565	ASTM A36
3	35110	S8L	1700X1700X75	1702	ASTM A36
4	35110	S9L	1700X1700X75	1702	ASTM A36
5	35110	S10L	1500X1500X75	1325	ASTM A36
6	35130	S11	1200X1200X63	712	IS 2062 Fe410B
7	35130	S12	800X800X40	201	IS 2062 Fe410B
8	35130	S13	1200X1200X40	452	IS 2062 Fe410B
9	36110	S14	1100X1100X40	380	IS 2062 Fe410B
10	36110	S15	1100X1100X40	380	IS 2062 Fe410B
11	36110	S17L	800X800X40	201	IS 2062 Fe410B
12	36110	S18L	800X800X40	201	IS 2062 Fe410B
13	36110	S18R	800X800X40	201	IS 2062 Fe410B
14	35130	S16	1200X1200X56	633	IS 2062 Fe410B
15	35140	S1L	800X800X40	201	IS 2062 Fe410B
16	35140	S2L	800X800X40	201	IS 2062 Fe410B
17	35140	S3L	800X800X40	201	IS 2062 Fe410B
18	35140	S4L	800X800X40	201	IS 2062 Fe410B
19	35140	S5L	800X800X40	201	IS 2062 Fe410B
20	35150	S1R	800X800X40	201	IS 2062 Fe410B
21	35150	S2R	800X800X40	201	IS 2062 Fe410B
22	35150	S3R	800X800X40	201	IS 2062 Fe410B
23	35150	S4R	800X800X40	201	IS 2062 Fe410B
24	35150	S5R	800X800X40	201	IS 2062 Fe410B
25	35120	S6R	1600X1600X75	1507	ASTM A36
26	35120	S7R	1200X1200X50	565	IS 2062 Fe410B
27	35120	S8R	1700X1700X75	1702	ASTM A36
28	35120	S9R	1700X1700X75	1702	ASTM A36
29	35120	S10R	1500X1500X75	1325	ASTM A36
30	38110	LC1	800X800X32	201	IS 2062 Fe410B
31	38110	LC2	800X800X32	201	IS 2062 Fe410B
B) TYPICAL 500 MW					
1	35140	S6L	1400X1400X56	862	IS 2062 Fe410B
2	35111	S7L	1400X1400X63	969	IS 2062 Fe410B
3	35111	S8L	2000X2000X100	3140	ASTM A36
4	35111	S9L	1800X1800X100	2543	ASTM A36
5	35111	S10L	2000X2000X100/	3140/ 3462	ASTM A36
6	35112	S11L	2000X2000X100/	3140/ 3462	ASTM A36
7	35112	S12L	1600X1600X75	1507	ASTM A36
8	35130	S13L	1600X1600X63	1266	IS 2062 Fe410B
9	36130	S14L	1000X1000X40	314	IS 2062 Fe410B
10	36130	S15L	1000X1000X40	314	IS 2062 Fe410B
11	35130	S16L	1000X1000X40	314	IS 2062 Fe410B
12	36130	S17	1000X1000X40	314	IS 2062 Fe410B
13	35130	S18	1800X1800X100	2543	ASTM A36
14	36110	S19	1400X1400X56	862	ASTM A36
15	36110	S20L	1400X1400X40	615	ASTM A36
16	36110	S21L	1000X1000X40	314	ASTM A36
17	36110	S22L	1000X1000X40	314	ASTM A36
18	36110	S23L	1000X1000X40	314	ASTM A36
19	35130	S13R	1600X1600X63	1266	ASTM A36
20	36130	S14R	1000X1000X40	314	ASTM A36
21	36130	S15R	1000X1000X40	314	ASTM A36
22	35130	S16R	1000X1000X40	314	ASTM A36
23	36110	S20R	1400X1400X40	615	ASTM A36
24	35130	S21R	1000X1000X40	314	ASTM A36
25	35140	S1L	1200X1200X50	565	ASTM A36
26	35140	S2L	1000X1000X40	314	ASTM A36
27	35140	S3L	1000X1000X40	314	ASTM A36
28	35140	S4L	1600X1600X56	1125	ASTM A36
29	35140	S5L	1000X1000X40	314	ASTM A36
30	35150	S1R	1200X1200X50	565	ASTM A36
31	35150	S2R	1000X1000X40	314	ASTM A36
32	35150	S3R	1000X1000X40	314	ASTM A36
33	35150	S4R	1600X1600X56	1125	ASTM A36
34	35150	S5R	1000X1000X40	314	ASTM A36
35	35150	S6R	1400X1400X56	862	ASTM A36
36	35121	S7R	1400X1400X63	969	ASTM A36
37	35121	S8R	2000X2000X100	3140	ASTM A36
38	35121	S9R	1800X1800X100	2543	ASTM A36
39	35121	S10R	2000X2000X100/	3140/ 3462	ASTM A36
40	35122	S11R	2000X2000X100	3140	ASTM A36
41	35122	S12R	1600X1600X75	1507	ASTM A36
42	35130	S13R	1600X1600X75	1266	ASTM A36
43	36130	S14R	1000X1000X40	314	IS 2062 Fe410B
44	36130	S15R	1000X1000X40	314	IS 2062 Fe410B
45	36110	S22R	1000X1000X40	314	IS 2062 Fe410B
46	36110	S23R	1000X1000X40	314	IS 2062 Fe410B
47	38110	LC1	1000X1000X40	314	IS 2062 Fe410B
48	38110	LC2	1000X1000X40	314	IS 2062 Fe410B
All raw material plates > 40 mm. are to be procured in normalized condition with UT as per ASTM A435. No joint is permitted					

The above data is not Exhaustive .It may vary from Project to project at the time of design.

ANNEXURE-K
MAJOR RAW MATERIALS FOR 250 MW BOILERS
(B) AUTO WELD
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 X 220 - IS2062GRB
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHQ PLATE 6 - IS3502
CHQ PLATE 8 - IS3502
HEX HD BOLT M12X40-4.6 IS1363(P-1) CAD
PIPE OD 88.90 x 7.62 - SA106GRB
PIPE OD 127.00 x 10.00 - SA106GRB
PLATE 10 - ASTMA36
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12.0 MM - IS2062GRB
PLATE 16.0 MM - IS2062GRB
PLATE 16.0 MM - SA515GR70
PLATE 20.0 MM - IS2062GRA
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32 MM - ASTMA36
PLATE 32.0 MM - IS2062GRB
PLATE 36.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 56 X 2000 X 10000 - ASTMA36
PLATE 6.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 8 MM - ASTMA36
PLATE 8.0 MM - IS2062GRB
PUNCHED WASHER A 18(ID) IS:2016
PUNCHED WASHER A14 (ID) IS 2016-CAD
ROUND DIA 22.0 MM - SA105
STEPTREAD 50X250X850MMDRG 23682000399/03
TUBE OD 63.50 X 5.20 X 11000 - SA210GRC
Grand

ANNEXURE-K	
MAJOR RAW MATERIALS FOR 250 MW	
(A) GENERAL FABRICATION	
MATERIAL DESCRIPTION	
ANGLE 50x50x6 MM	
ANGLE 65 x 65 x 6 MM - IS2062GRA	
ANGLE 75 x 75 x 6 MM - IS2062GRA	
ANGLE 80 x 80 x 8 MM - IS2062GRA	
ANGLE 100 x 100 x 10 MM - IS2062GRA	
ANGLE 130 x 130 x 12 MM - IS2062GRA	
BEAM 125 x 70 - IS2062GRA	
BEAM 150 x 75 - IS2062GRA	
BEAM 200 x 100 - IS2062GRA	
BEAM 250 x 125 - IS2062GRA	
BEAM 300 x 140 - IS2062GRA	
BEAM 350 x 140 - IS2062GRA	
BEAM 400 x 140 - IS2062GRA	
BEAM 450 x 150 - IS2062GRA	
BEAM 500 x 180 - IS2062GRA	
BEAM 500 X 200 - IS2062GRB	
BEAM 600 X 220 - IS2062GRB	
H-BEAM 254X146 - IS2062GRB	
H-BEAM 305X165 - IS2062GRB	
H-BEAM 406 X 178 - IS2062GRB	
H-BEAM 450 X 190 - IS2062GRB	
CHANNEL 75 x 40 MM - IS2062GRA	
CHANNEL 100 x 50 MM - IS2062GRA	
CHANNEL 125 x 65 MM - IS2062GRA	
CHANNEL 150 x 75 MM - IS2062GRA	
CHANNEL 200 x 75MM - IS2062GRA	
CHANNEL 250 x 82 MM - IS2062GRA	
CHANNEL 250 x 82 MM - IS2062GRB	
CHANNEL 300 x 90 MM - IS2062GRA	
CHANNEL 300 x 90 MM - IS2062GRB	
CHANNEL 400 x 100 MM - IS2062GRA	
CHANNEL 400 x 100 MM - IS2062GRB	
CHQ PLATE 6 - IS3502	
DIA 10mm-IS2062FE410GRA	
ERW PIPE NB 80 HEAVY - IS1239	
ERW PIPE NB100 LIGHT - IS1239	
ERW TUBE NB 25 MEDIUM X5300-IS1161YST240	
ERW TUBE NB 32 MEDIUMX5300-IS1161YST240	
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240	
ERW TUBE NB 50 MED x 6000 - IS1161YST240	
ERW TUBE NB 65 LIGHT- IS1239	
HEX HD BOLT M12X40-4.6 IS1363(P-1) CAD	
PIPE OD 114.30 x 6.02 - SA106GRB	
PIPE OD 168.30 x 7.11 X 6000 - SA106GRB	
PIPE OD 88.9 X 5.49 - ASTMA53GRB	
PLATE 10 - ASTMA36	
PLATE 10.0 MM - IS2062GRB	
PLATE 10-IS2062 Fe410A	
PLATE 12 MM - ASTMA36	
PLATE 12.0 MM	
PLATE 12.0 MM - IS2062GRB	
PLATE 16 - ASTMA36	
PLATE 16.0 MM - IS2062GRA	

PLATE 16.0 MM - IS2062GRB	
PLATE 20 - ASTMA36	
PLATE 20.0 MM - IS2062GRB	
PLATE 25 - ASTMA36	
PLATE 25.0 MM - IS2062GRB	
PLATE 32.0 MM - IS2062GRB	
PLATE 36.0 MM - IS2062GRB	
PLATE 40.0 MM - IS2062GRB	
PLATE 5.0 MM - IS2062GRB	
PLATE 5.00 MM IS2062FE410GRA	
PLATE 50 - IS2062GRB	
PLATE 6 MM - ASTMA36	
PLATE 6.0 MM - IS2062GRB	
PLATE 6mm-IS 2062 Fe 410A	
PLATE 7.0 MM - IS2062GRB	
PLATE 7.00 MM - IS2062GRA	
PLATE 8 MM - ASTMA36	
PLATE 8.0 MM - IS2062GRB	
PLATE 8.00 MM - IS2062GRA	
PUNCHED WASHER A 18(ID) IS:2016	
PUNCHED WASHER A14 (ID) IS 2016-CAD	
ROUND DIA 6.0 MM - IS2062GRA	
ROUND DIA 16.0 MM - SA105	
ROUND DIA 22.0 MM - SA105	
ROUND DIA 25.0 MM - SA105	
ROUND DIA 32.0 MM - SA105	
ROUND DIA 40.0 MM - SA105	
ROUND DIA 50.0 MM - SA105	
ROUND DIA 63.0 MM - SA105	
ROUND DIA 80.0 MM - SA105	
SHEET 2.5MM - IS1079D	
SHEET 3.15mm-IS 1079 FE 330	
SHEET 4.00 MM - IS1079	
SHT 2.50 MM - IS5986FE410	
STEPTREAD 50X250X850MMDRG 23682000399/03	
THREADED CLEVIS M20	
THREADED CLEVIS M20(LH)	
THREADED CLEVIS M27	
THREADED CLEVIS M27(LH)	
THREADED CLEVIS M36X3	
THREADED CLEVIS M36X3(LH)	
THREADED CLEVIS M45X3	
THREADED CLEVIS M45X3(LH)	
TUBE OD 60.3 X 5 X 12150 - SA210GRA1	
TUBE OD 60.3 X 5 X 7000 - SA210GRC	
TUBE OD 60.30 x 8.74 MM - SA106GRB	
TUBE OD 60.30 x 3.91 MM - SA106GRB	
TUBE OD 76.1 X 4.5 X 11000 - ASTMA53 GRB	
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB	
TUBE OD 76.1 X 4.5 X 5000 - A53GRB	
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m	
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m	

GENERAL FABRICATION FOR 500 MW BOILERS	
MATERIAL DESCRIPTION	ANNEXURE-K
ANGLE 50x50x6 MM	
ANGLE 65 x 65 x 6 MM - IS2062GRA	
ANGLE 75 x 75 x 6 MM - IS2062GRA	
ANGLE 80 x 80 x 8 MM - IS2062GRA	
ANGLE 100 x 100 x 10 MM - IS2062GRA	
ANGLE 130 x 130 x 12 MM - IS2062GRA	
BEAM 125 x 70 - IS2062GRA	
BEAM 150 x 75 - IS2062GRA	
BEAM 150 x 75 - IS2062GRA(CB)	
BEAM 200 x 100 - IS2062GRA	
BEAM 250 x 125 - IS2062GRA	
BEAM 300 x 140 - IS2062GRA	
BEAM 350 x 140 - IS2062GRA	
BEAM 400 x 140 - IS2062GRA	
BEAM 450 x 150 - IS2062GRA	
BEAM 500 x 180 - IS2062GRA	
BEAM 500 X 200 - IS2062GRB	
BEAM 600 x 210 - IS2062GRA	
BEAM 600 X 220 - IS2062GRB	
CHANNEL 75 x 40 MM - IS2062GRA	
CHANNEL 100 x 50 MM - IS2062GRA	
CHANNEL 125 x 65 MM - IS2062GRA	
CHANNEL 150 x 75 MM - IS2062GRA	
CHANNEL 200 x 75MM - IS2062GRA	
CHANNEL 250 x 82 MM - IS2062GRA	
CHANNEL 250 x 82 MM - IS2062GRB	
CHANNEL 300 x 90 MM - IS2062GRA	
CHANNEL 300 x 90 MM - IS2062GRB	
CHANNEL 400 x 100 MM - IS2062GRA	
CHANNEL 400 x 100 MM - IS2062GRB	
CHQ PLATE 8 - IS3502	
ERW PIPE NB150 MEDIUM - IS1239	
ERW TUBE NB 32 MEDIUMX5300-IS1161YST240	
ERW TUBE NB 32 MEDIUMX6100-IS1161YST240	
H-BEAM 254X146 - IS2062GRB	
H-BEAM 305X165 - IS2062GRB	
H-BEAM 406 X 178 - IS2062GRB	
H-BEAM 450 X 190 - IS2062GRB	
PIPE OD 88.90 x 5.49 - SA106GRB	
PIPE OD 88.90 x 12.50	
PIPE OD 114.30 x 6.02 - SA106GRB	
PIPE OD 127 X 11.5 - ASTMA53GRB	
PLATE 10.0 MM - IS2062GRB	
PLATE 10-IS2062 Fe410A	
PLATE 12 MM - ASTMA36	
PLATE 12.0 MM - IS2062GRB	
PLATE 16 - ASTMA36	
PLATE 16.0 MM - IS2062GRB	
PLATE 20.0 MM - IS2062GRB	
PLATE 25 - ASTMA36	
PLATE 25.0 MM - IS2062GRB	
PLATE 32 MM - ASTMA36	
PLATE 32.0 MM - IS2062GRB	
PLATE 36 MM - ASTMA36	
PLATE 36.0 MM - IS2062GRB	
PLATE 40.0 MM - IS2062GRB	
PLATE 5.0 MM - IS2062GRB	
PLATE 5.00 MM IS2062FE410GRA	
PLATE 50 - IS2062GRB	
PLATE 56 X 2000 X 10000 - ASTMA36	
PLATE 56.0 MM - IS2062GRB	
PLATE 6.0 MM - IS2062GRB	
PLATE 63.0 MM - IS2062GRB	
PLATE 6mm-IS 2062 Fe 410A	
PLATE 8.0 MM - IS2062GRB	
PLATE 8.00 MM - IS2062GRA	
ROUND DIA 6.0 MM - IS2062GRA	
ROUND DIA 12.0 MM - SA105	
ROUND DIA 16.0 MM - SA105	
ROUND DIA 22.0 MM - SA105	
ROUND DIA 32.0 MM - SA105	
ROUND DIA 40.0 MM - SA105	
ROUND DIA 50.0 MM - SA105	
ROUND DIA 63.0 MM - SA105	
ROUND DIA 80.0 MM - SA105	
ROUND DIA 100.0 MM - SA105	
ROUND DIA 200.0 MM - SA105	
SHEET 2.5MM - IS1079D	
SHEET 3.15mm-IS 1079 FE 330	
SHEET 4.00 MM - IS1079	
THREADED CLEVIS M27	
THREADED CLEVIS M27(LH)	
THREADED CLEVIS M45X3	
THREADED CLEVIS M45X3(LH)	
TUBE OD 60.3 X 5.6 X 12150 - SA210GRC	
TUBE OD 76.1 X 4.5 X - ASTMA53 GRB	
TUBE OD 76.1 X 4.5 X 4000 - ASTMA53 GRB	
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m	
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m	

ANNEXURE-K
MAJOR RAW MATERIALS FOR 500 MW BOILERS
(B) AUTOWELD
MATERIAL DESCRIPTION
ANGLE 50x50x6 MM
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 125 x 70 - IS2062GRA
BEAM 150 x 75 - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 400 x 140 - IS2062GRA
BEAM 450 x 150 - IS2062GRA
BEAM 500 x 180 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 x 210 - IS2062GRA
BEAM 600 X 220 - IS2062GRB
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
WPHB 700 X 300 -IS2062 Gr.B, @204.5 Kg/m
WPLB 700 X 300 -IS2062 Gr.B, @149.9 Kg/m
CHANNEL 75 x 40 MM - IS2062GRA
CHANNEL 100 x 50 MM - IS2062GRA
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRB
ELEC.FORGD. STEP TREAD 50 X 250 X 1000
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12.0 MM - IS2062GRB
PLATE 16 - ASTMA36
PLATE 16.0 MM - IS2062GRA
PLATE 16.0 MM - IS2062GRB
PLATE 20 - ASTMA36
PLATE 20.0 MM - IS2062GRA
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32 MM - ASTMA36
PLATE 32.0 MM - IS2062GRB
PLATE 36 MM - ASTMA36
PLATE 36.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 56 X 2000 X 10000 - ASTMA36
PLATE 6 MM - ASTMA36
PLATE 6.0 MM - IS2062GRB
PLATE 63 X 1800 X 10000 - ASTMA36
PLATE 63.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 7 X 1800 X 6000 - ASTMA36
PLATE 8.0 MM - IS2062GRB
PLATE 8.00 MM - IS2062GRA
SHEET 1.6 MM - IS513D
SLIDE BEARING PLATE

ANNEXURE-K
MAJOR RAW MATERIALS FOR 250 MW BOILERS
(C) COLUMNS
MATERIAL DESCRIPTION
ANGLE 65 x 65 x 6 MM - IS2062GRA
ANGLE 75 x 75 x 6 MM - IS2062GRA
ANGLE 80 x 80 x 8 MM - IS2062GRA
ANGLE 100 x 100 x 10 MM - IS2062GRA
ANGLE 130 x 130 x 12 MM - IS2062GRA
BEAM 200 x 100 - IS2062GRA
BEAM 250 x 125 - IS2062GRA
BEAM 300 x 140 - IS2062GRA
BEAM 350 x 140 - IS2062GRA
BEAM 500 X 200 - IS2062GRB
BEAM 600 X 220 - IS2062GRB
H-BEAM 254X146 - IS2062GRB
H-BEAM 305X165 - IS2062GRB
H-BEAM 406 X 178 - IS2062GRB
H-BEAM 450 X 190 - IS2062GRB
CHANNEL 125 x 65 MM - IS2062GRA
CHANNEL 150 x 75 MM - IS2062GRA
CHANNEL 200 x 75MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRA
CHANNEL 250 x 82 MM - IS2062GRB
CHANNEL 300 x 90 MM - IS2062GRA
CHANNEL 300 x 90 MM - IS2062GRB
CHANNEL 400 x 100 MM - IS2062GRA
CHANNEL 400 x 100 MM - IS2062GRB
PLATE 10.0 MM - IS2062GRB
PLATE 10-IS2062 Fe410A
PLATE 12.0 MM - IS2062GRB
PLATE 16.0 MM - IS2062GRA
PLATE 16.0 MM - IS2062GRB
PLATE 20 - ASTMA36
PLATE 20.0 MM - IS2062GRA
PLATE 20.0 MM - IS2062GRB
PLATE 25 - ASTMA36
PLATE 25.0 MM - IS2062GRB
PLATE 32.0 MM - IS2062GRB
PLATE 40.0 MM - IS2062GRB
PLATE 5.0 MM - IS2062GRB
PLATE 5.00 MM IS2062FE410GRA
PLATE 50 - IS2062GRB
PLATE 56.0 MM - IS2062GRB
PLATE 6.0 MM - IS2062GRB
PLATE 63.0 MM - IS2062GRB
PLATE 6mm-IS 2062 Fe 410A
PLATE 8.0 MM - IS2062GRB
SHEET 1.6 MM - IS513D
SHEET 2mm-IS1079 Fe 330

[illegible]

SCHEDULE	QTY. IN MT	AREA SQM.
GENERAL FABRICATION	1340	30400
DUCT	1000	28570
COLUMN	1250	9890
AUTOWELD	880	12020
Grand Total	4470	80880

Note: The above data is only indicative and exhaustive. However, the wt. And schedule may vary at the time of actual document release

TYPICAL RATE SCHEDULE BREAK UP FOR PGMA3 FOR 500 MW																										
DATE: 07-04-08																										
PG	MA	PGMA Description	Est Wt.(Kg.)	001	002	003	004	005	006	007	008	009	010	011	012	014	018	021	023	047	048	050	084	086	087	368
(A) GENERAL FABRICATION																										
08-	007	Furnace Lower Buckstays	79132.89										2125.60	63831.09												
																	13176.20									
35-	311	Horizontal Bracing I Pass I Mbl	18202.80	1638.30	8494.50	1052.90																				
35-	312	Horiz Bracing Ii Pass Imbl	12364.50	1289.80	5730.50													7017.10								
35-	321	Horiz Bracing Ii Pass Ii Mbl	24596.50	2114.90	7621.70	5811.30	1021.10																			
35-	322	Horiz Bracing Ii Pass Iii Mbl	9016.60	1920.40	3112.20																					
35-	331	Horiz Bracing Ii Pass Iii Mbl	20397.20	1462.00	9115.40																					
35-	332	Horiz Bracing Ii Pass Iii Mbl	22541.40	2940.10	9548.00	558.80																				
35-	341	Horiz Bracing Ii Pass Iv Mbl	17811.80	1095.90	5313.40	6159.60	600.00																			
35-	351	Horiz Bracing Ii Pass V Mbl	32933.40	877.10	10118.70	10799.40	2280.50																			
35-	352	Horiz Bracing Ii Pass V Mbl	18017.20	214.30	5669.90	4842.60	860.10																			
35-	361	Horiz Bracing Ii Pass Vi Mbl	28490.80	2384.30	7045.80	10259.60	1330.70													2923.70						
35-	362	Horiz Bracing Ii Pass Vi Mbl	17804.80	1567.30	6117.70	5107.30	866.00																			
35-	390	Platform At Drum Floor Level	59898.80	18503.90	19470.20	8438.90	104.50							509.70												
35-	511	Front Bracing-Lower	49286.80						29165.40																	
35-	512	Front Bracing-Middle	30523.50						20984.50																	
35-	513	Front Bracing-Upper	22541.80						14664.90																	
35-	521	Side Bracing-Lower	156663.50	1503.10					93100.70																	
35-	522	Side Bracing Middle	84849.70	688.30					51872.40																	
35-	523	Side Bracing-Upper	71505.00						43827.00																	
35-	531	Rear Bracing-Lower	99040.50	1183.10					59262.00																	
35-	532	Rear Bracing- Middle	53610.10	105.00					31816.30																	
35-	533	Rear Bracing-Upper	88980.00	310.00			13065.90		39556.10																	
36-	314	Non-Mbl Floor Between Mbl landii	19112.64	2580.32	131.88		14544.32							351.78												
36-	315	Non-Mbl Floor Between Mbl landii	25132.10	3344.38	7465.53		3908.12																			
36-	316	Non-Mbl Floor Between Mbl landii	35004.60	5834.87	5482.56	3842.90	446.19							1083.18												
36-	322	Main Floor Ii Mbl 2nd Pass	22160.98		116.61		472.00							1115.97												
36-	324	Non-Mbl Floor Between Mbl landii	14489.96				1923.20							313.05												
36-	325	Non-Mbl Floor Between Mbl landii	93557.72	22635.66	36577.77	3347.35	1649.51							746.02												
36-	326	Non-Mbl Floor Between Mbl landii	16617.41				2697.34							145.03												
36-	327	Non-Mbl Floor Between Mbl landii	80354.59	10286.58	18450.58	2933.31	4892.18							3122.99												
36-	331	Main Floor Iii Mbl 1st Pass	17983.93				237.50	2500.04						1619.20												
36-	333	Non-Mbl Floor Between Mbl landii	22696.86				5941.51	2001.00						451.87												
36-	334	Non-Mbl Floor Between Mbl landii	12377.85				851.54	1248.18						177.04												
36-	335	Non-Mbl Floor Between Mbl landii	45283.99	13143.31	7870.41	2638.04	6394.71							747.11												
36-	342	Main Floor Iv Mbl 2nd Pass	13661.01	1347.65	717.50		2424.58	240.55																		
36-	345	Non-Mbl Floor Between Mbl landii	86314.03		42744.36		543.86							363.30												
36-	353	Non-Mbl Floor Between Mbl landii	22592.11				3191.72	6871.87						955.99												
36-	354	Non-Mbl Floor Between Mbl landii	21242.35	5522.64	7484.48		2386.42							879.40												
36-	355	Non-Mbl Floor Between Mbl landii	40625.34	7290.97	9502.10	6050.82	4347.03							1153.07												
36-	362	Main Floor Vi Mbl 2ndpass	8460.91				3425.03																			
36-	391	Miscellaneous Platforms-Part I	71948.02	8013.54	21378.93	1228.68	1056.92							685.83												
36-	392	Miscellaneous Platforms-Part II	76142.50	9874.00	20240.41	913.35	7088.67							4782.15												
36-	394	Miscellaneous Platforms Part Iv	19031.74	4338.86	2663.27		7243.33																			
36-	395	Miscellaneous Platforms Part V	8632.11	2617.01	211.33	1017.04								530.69												
38-	210	Boiler/Elevat	41200.88	7731.48	6177.17	385.44	8720.99							377.51												
38-	310	Conn Platforms To Mill	18518.95	9261.60	5073.61									450.55												
38-	381	Mill Maintenance Platforms	147337.95	11779.69	43643.14	1135.47								387.28												
38-	510	Lift Beams And Bracings	89803.64				23427.06							51563.85												
38-	610	Lift Machine Room																								
38-	610	Detailsandmisc Struct	59506.66	4133.63			17515.93	1449.67						2090.12												
39-	150	Col Frames Betn I.D.Fan And Chimney	60679.17	9600.64			11065.19	1394.54	17609.61					9736.96												
39-	300	Platforms - External Structure	306355.67	16192.81	71464.63	22772.21	12728.29	4633.77						4470.98												
39-	302	Struc For Motor Hood Covering	5631.22																							
39-	305	Fan Handling Structure For Pa Fan	8575.58				4948.75																			
39-	306	Fan Handling Structure For Id Fan	56415.89		14219.38		9449.27							5853.54												
39-	306	TOTAL	2586659.93	195327.44	418973.65	1589036.23	140373.99	406733.23	0.00	0.00	2125.60	63831.09	94663.76	0.00	0.00	429455.61	4867.64	0.00	299590.58	304828.52	11880.70	36162.90	0.00	2787.13	17820.31	12.56
PG	MA	PGMA Description	Est Wt.(Kg.)	001	002	003	004	005	006	007	008	009	010	011	012	014	018	021	023	047	048	050	084	086	087	368
(B) AUTO WELD																										
08-	400	Furnace Guide	6195.704	523.058																						
35-	342	Horiz Bracing Ii Pass Iv Mbl	38961.000	3619.100	4172.200	6322.300																				
35-	441	Horizontal Beams-Lower	110176.200			25960.800	2250.400																			
35-	442	Horizontal Beams Middle	98663.200			2997.900	13306.100																			
35-	443	Horizontal Beams-Upper	67566.400	859.600		4451.900	18938.000																			
35-	451	Horizontal Beams - Lower 2nd Pass	78183.500			8835.600	11204.800																			
35-	452	Horizontal Beams - Middle - 2nd Pass	55000.000			2124.100	8518.400																			
35-	453	Horizontal Beams - Upper - 2nd Pass	41025.800	286.500		383.800	6981.000																			
36-	311	Main Floor I Mbl 1st Pass	29489.886			733.246	804.958							12.566												

DATE: 07-04-08			TYPICAL										RATE				SCHEDULES				FOR				500 MW			
PG	MA	POMA Description	Est Wt.(Kg.)	001	002	003	004	005	006	007	008	009	010	011	012	014	018	021	023	047	048	050	054	056	057	358		
36-	341	Main Floor Iv Mbl 1st Pass	46503.857	592.658	5465.655		2212.352										10825.412			10339.088	17066.692							
36-	348	Non-Mbl Floor Between Mbl Ivandv	78596.912	1853.466	9856.937		1114.948										6328.791			49077.330	10565.440							
39-	393	Miscellaneous Platforms Part Ii	65702.054	7059.855	7417.008		336.906						160.920				8388.665			21493.214	20845.486							
39-	740	Posts And Hangers	67543.867				3832.120						261.588				339.207							52007.182	11103.770			
39-	299	Mll Handling Monorails	92800.116		3507.416								166.900				12740.640			3432.412						72952.748		
39-	101	Columns Frames Before Esp-Left	141209.840					34461.774									271.296							106476.770				
39-	102	Columns Frames Before Esp -Right	282155.612	27963.096		26949.936	22919.566						9616.068				18247.713			109100.989	67658.244							
39-	141	Cols Frames Near Id Fan - Left	129506.348																					129506.348				
39-	142	Cols Frames Near Id Fan - Right	281059.574	27166.546			37730.962	38691.052					16842.256				19929.253			140699.505								
39-	304	Fan Handling Structure For Fd Fan	12403.546				1657.568										3138.328									7607.650		
PG	MA	TOTAL POMA Description	1966862.795	69423.875	42918.836	120755.306	140646.948	34461.774	0.000	0.000	0.000	0.000	28069.796	0.000	0.000	145336.678	0.000	0.000	258433.410	443844.998	0.000	3315.600	387996.306	11183.770	89569.596	0.000		
PG	MA	(C) COLUMN	Est Wt.(Kgs.)	001	002	003	004	005	006	007	008	009	010	011	012	014	018	021	023	047	048	050	054	056	057	358		
35-	111	Main Columns Left 1st Pass	736386.900															394699.000			341687.900							
35-	112	Main Columns Lert 2nd Pass	346331.200															184509.500			161821.700							
35-	121	Maincolumns Right 1st Pass	736386.900															394699.000			341687.900							
35-	122	Main Columns Right 2nd Pass	346331.200															184509.500			161821.700							
35-	130	Main Columns Middle	708689.200										14875.700				14294.500			358762.400	319631.600	1125.000						
35-	140	Auxiliary Columns-Left Side	330993.900																168877.800									
35-	150	Auxiliary Columns-Rightside	330993.900																168877.800									
PG	MA	TOTAL POMA Description	3536113.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14875.700	0.000	0.000	14294.500	0.000	1856935.000	0.000	322232.200	1326655.800	1125.000	0.000	0.000	0.000	0.000		
PG	MA	(D) DUCT	Est Wt.(Kgs.)	001	002	003	004	005	006	007	008	009	010	011	012	014	018	021	023	047	048	050	054	056	057	358		
48-	012	Rect Duct Bet F.D Fan And Airheater	100098.792					1512.764	89915.028			8671.000																
48-	022	Rect Duct Sec Air Interconnection	13715.760					12079.200	1636.560																			
48-	032	Rect Duct A.H Bypass Sec Air Side	46604.610						42790.230			3814.380																
48-	112	Rect Ducts Pri Fan To Airheater Prisd	61799.062					3443.840	50414.598			7940.624																
48-	132	Rect Duct Pri Air Fan To Coldairbusdu	33014.952					3409.872	29605.080																			
48-	142	Rect Duct Coldairbus(Temp Air To Mill	42801.733					26177.626	3530.428			12084.669	1009.010															
48-	152	Rect Duct Pri Air Fan Interconnection	46923.554					38486.648	8436.906																			
48-	202	Rect Ductsairheater To Windboxduct	237694.876					76029.278	161080.598				585.000															
48-	212	Wind Box Connecting Ducts - Rectangula	35375.868						28944.140						6431.728													
48-	222	Rect Duct-Airheater Prisdetohotair B	115198.732					58928.800	56269.932																			
48-	232	Rect Ducts Hot Air Busduct(Hotairtomil	131105.427					25659.456	105445.971																			
48-	382	Rect Duct Economiser To Airheater2nop	98828.389					15482.338	83346.051																			
48-	386	Duct Below Divertor	112714.026						112714.026																			
48-	388	Sq Duct Economiser-Pri Ah	134415.737					2796.224	131659.613																			
48-	432	Rect Duct Airheater Boiler Outlet-Gas	85091.146					7945.052	77146.094																			
48-	438	Sq Duct,Pri Ah-Blr Outlet Flange	33121.030						30364.806			2756.224																
48-	439	Sq Duct,Sec Ah-Blr Outlet Flange	43993.312						43993.312																			
48-	462	Rect Duct Boiler Outlet To Elec Preop	259862.964						252044.178			7362.528	276.800			179.458												
48-	468	Sq Duct,Blr Outlet Flange-Ep,Right	100154.866						100154.866																			
48-	482	Rect Ducts-Elec Prptr/M.S To Inddraft	97778.948					44061.824	53717.124																			
48-	486	Ep Spool Duct	150596.584					48612.936	101983.648																			
48-	489	Sq Duct,Ep Interconn-Id Fan	71178.820						67410.004			3768.816																
48-	492	Rect Duct Ind Draft Fan To Chimney	325724.806					92899.674	221114.584			9626.548		2084.000														
48-	662	Rect Duct Hot Air Bus To Mills	75006.423					6824.700	35577.390			32604.333																
PG	MA	TOTAL	2452800.417	0.000	0.000	0.000	0.000	0.000	464310.232	1689295.067	0.000	88629.122	1670.810	2084.000	6431.728	179.458	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
		SCHEDULE	QTY (MT)																									
		GENERAL FABRICATIO	2590																									
		AUTO WELD	1970																									
		COLUMN	3540																									
		DUCTS	2450																									
		TOTAL	10550																									
Note: The above data is only indicative and exhaustive. However, the wt. And schedule may vary at the time of actual document release.																												

		ANNEXURE - N
		WORK CONTENT
SI. NO.	RS. NO.	DESCRIPTION
1	001	Cut-to-size in structural including taper cutting and edge preparation, erection materials, rectangle plate cutting.
2	002	End profiled structurals, plate shape cutting , Beam cut as 'T'.
3	003	Buckstays, supp. strls., galleries stairways (bolted type), platform, supports, collector channel, cleat, ladder, supp. plates, bearing plates, welded beam, supp. angles, bent plate, supp. beam and built-beams in all PGMAs. Trial assy of segments of chimneys and stacks, rolled beam with holes.
4	004	Castellated beams and columns (single piece with base) made out of rolled beams, box bracing of sizes 200 mm & above, slotted section, stairways (welded type), fabn. of segmental flanges.
5	005	Built-up beam and box up to 2.5 M length, rafters, built-up elevator column, roof enclosure column assy., spider bracing assy., welded beams including button plates, deck panel assembly fully welded angle bracing, bracing type star angle involving trial assembly. Box bracing of size 200mm and above with base plate welding , with trial assembly. Rolled beam column with base plate welding with trial assembly.
6	006	Rectangular ducts without truss (assembly weight 2 M.T and above) including collector channel assembly. Baffle with door, Vertical Baffle Plate.(Without trial assembly)
7	007	Transition, elbow ducts, divider ducts, bend ducts, fully welded box type ducts, rectangular ducts with truss assembly and without trial assembly guide vane inclusive of collector channel assy, truss assembly inside duct, wind box connecting duct, deflector plate, wall frames (assembly weight 2 M.T and above),
8	008	Fixing components for lining and insulation, boiler casings, frames and transport stands, cassette baffle (CS), forming of rolled section, CEEP, omega strip, locating plate, seal box, punched sheet, tubular truss, liner plate (loose). Casing Wall (>500 Kg), casing sheets more than 100 kgs.
9	009	Segmental bend fabn. (above 133 mm dia) out of pipes, reducer, shim plates with machining, Feeder Shell fabn, Plate end weldment, hood ladder, skirt assy. upto 2.5 metres dia, 4 metre long, saddle support, hand rail with hollow spheres (weldment). CS Support(<30 Kg), Spacer tube with Guide, Guide PL Casing Wall upto 500Kg, Clad sheets, L Frame Assy Components, Side Casing Assy(Incl. of Polythene sh. packing), Carbon Steel Down Spout Assy, Pyrometer Assy, Drain Oil Tank without heater set. bunker and ash tank wall (CS) with trial assy. Etc
10	010	Built-up box & beam above 2.5 M length, " + " type columns out of rolled sections involving trial assy, channel box bracing upto 150mm, channel box column with base plate welding and trial assembly, built-up beam with plate 12mm & below. Channel box brazing up to and including 150mm with base plate welding. with trial assembly of any size
11	011	Circular ducts above dia 1000mm,(with trial assembly) rolling and welding of pipes out of plates, spring cover. CS down sprout / feed pipe.
12	012	Bellow type Exp Jt. C.S
13	013	Expansion Panel / Expansion plates and pleated panel
14	014	Small Despatchable Units
15	015	Stainless steel forming, SS Heat Shield more than 1 Kg.
16	016	Bellow type expansion joints (alloy steel / corten steel)
17	017	Stainless Steel bellow type Expansion Joint.
18	018	CS/AS shearing & straightening up to 10 mm and SS shearing upto 6 mm., guard plate
19	020	Stainless steel fabn. Of down spout/feed pipe made out of pipes, cassette baffle ,
20	023	Fabn. Of built-up beams, UC, by SAW including edge preparation, lay out, MPI/LPI as called for in QWI.
21	025	Circular damper (incl. of packing charges) upto 100 kg.

22	028	Circular damper (incl. of packing charges) above 100 kg.
23	029	Auto damper (including machining and assy.), duplex scanner assembly. (in nos)
24	031	Corrugated sheet
25	032	Alloy steel fabrications (including corten steel) except welded channels and welded beams. Seal air header, MDV header
26	033	Stainless steel fabns. Including down spout and feed pipe out of plates. Needle gate assembly with SS body.
27	034	Shell assy upto 16mm plate thick, skirt assy more than 2.5 dia, length more than 4 metres, seg.bends out of plates upto 16 mm, weld attachments for drum, salt mixing tank.
28	035	Shell Assembly above 16 mm plate thick, , chimneys, stack assemblies.
29	036	Fabrication of Alloy steel Ducts with fabricated AS structures and trial assembly. Alloy steel horizontal pipe clamp made out of plates., trunnian clamp
30	037	Alloy steel welded channels and welded beams fabricated out of AS plates Alloy steel welded type raiser clamp, shock absorber clamp.
31	039	Ducts of less than 2 MT(assembly weight)(without trial assembly), fully welded ducts of any weight, aerofoil, flow metre, ventury metre, liner assembly, , circular duct dia up to and including 1000mm, duct / duct wall of tower type design of any weight , elbow duct with multiple vane without partition wall of any weight, grab bar, air filter assembly. Bunker and ash tank wall assembly,(with trial assembly) where - AS / SS lining / content is involved
32	040	Alloy steel Crown Plate (Plate thickness more than 12mm.)
33	042	Strips, Plates, stiffners involving shearing and punching operations upto 6 mm, U clamp upto 6mm, Nut Cap Assy.
34	043	Strips, Plates, stiffners involving shearing and punching operations above 6 mm, corner support flat & U clamp above 6mm .
35	044	Small items like Peg fin, bent pin, U plate , socket pin
36	045	Pipe bend 45,90,135 deg. upto Tube dia 44.5 mm .
37	046	Multiple bends upto Tube dia 44.5 mm., Shear Pin, SS Heat Shield with curving operation.
38	047	Fabn. of box type beams from plates by SAW including edge preparation , lay out LPI/MPI as called for in QWI..
39	048	Fabn. Of " + " type beams from plates of any thickness by SAW including edge preparation, lay out, LPI/MPI as called for in QWI. .
40	050	Despatch of structural item, viz., angles, beams, channels, plates, tubes and rods as Running Meter
41	055	Press brake items and deck ribbed sheet, ribbed sheet, omega strip including steel crating as per sketch AD:OP&C:001 out of BHEL materials, wherever called for and omega strip, casing sheet less then 100 kg. Weight.
42	056	Linkage assy (CS/AS) - made out of rod up to and including dia 50mm, glycerile seal pot - B
43	058	Fabn. & Trial assy. Of Ceiling Girders upto 250 MW and Fabn. & Trial assy. Of 500 MW single girder.
44	059	Fabn. & trial assy. of 500 MW Ceiling Girder
45	066	Fabfication of Wind Box and panel supports.
46	067	Erection lug, partition plate, square nut, Cable opening tube, 1" Coupling, water loop, nipple, pipe clamp (AS), weldl stud M10, taper washer, stud.
47	068	rocker shaft lever, rocker shaft, impulse line vent, precision hex screw M30 x 60, stud M27.
48	070	U Shield, bend type tube shield, SS spacer tube, reinforce pad shield, Air Nozzle (SS) + Tube(SS/CS) welding SS clevis pin
49	074	Miscellaneous items such as panel erection/ handling attachment, washer, brackets, rack trays, collector plates, eco-straps, switch mounting bracket, off-set bar (plate type and rod without machining), lugs, lug plates, yoke plates, name plate holder, lifting handle
50	077	Frame with Undulated sheets

51	081	Fabn. Of built up beam, Universal column, by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial assy, inclusive of end packing for Assy wt more than 10 MT, I-Beams section including 200 and less
52	082	Fabn. Of built up beam, Universal column, by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial assy, inclusive of end packing for Assy.wt less than or equal to 10 MT
53	083	Fabn. Of box from plates by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial Assy, inclusive of end packing for Assy. wt more than 10 MT, Boxes of cross section including 200 and less
54	084	Fabn. Of box from plates by SAW including edge preparation, layout, MPI/LPI as call for QWI & Trial Assy, inclusive of end packing for Assy. wt less than or equal to 10 MT
55	085	Fabn. Of "+" type column from plates of any thickness by SAW including edge preparation, layout, MPI/LPI as call for QWI&trial assy, inclusive of end packing for assy. wt more than 10 MT
56	086	Fabn. Of "+" type column from plates of any thickness by SAW including edge preparation, layout, MPI/LPI as call for QWI & trial assy, inclusive of end packing for assy. wt less than or equal to 10 MT
57	087	Monorail beam fabn. & trial assy, vertical beam (buckstay), castellated beam (Auto weld).
58	088	Bracing Fabn. & Trial assy.
59	090	Buckstay assy. With welded beam by SAW,
60	091	Buckstay assy, with rolled beam by manual welding.
61	092	Single piece auto welded column with base plate and top plate.
62	120	Pipe clamp
63	121	Spacer clip, support clip (AS), support lug (AS), strip, stud, SS Heat Shield less than or equal to 1 Kg/piece , fin flat.
64	125	Corrugated Drier box, spray pipe clamp assembly.
65	127	AS strut, CS Sp box, SS Sp bar, thermowell, flame viewing port , glycerine seal pot - A.
66	129	Heat treatment of boiler components as per QCP:002/02. Stress-relieving / normalising shall be done.
67	131	CEEP to drg. 3-48-382-30016
68	133	Style 01- half size-CS/carton steel - Drg No. 2-48-999-47612/01
69	134	Style 02 half size-CS/carton steel - Drg No. 2-48-999-47612/01
70	135	Style 01-full size- CS/Carton steel - Drg No. 2-48-999-47612/01
71	136	Style 02 - full size-CS - Drg No. 2-48-999-47612/01
72	137	Style02- full size -carton steel -Drg No. 2-48-999-47612/01
73	138	Stainless Steel Round Corner
74	145	Pipe Bend – Single , dia 48.3 (for hand rails)
75	146	Pipe bend – Multiple, dia 48.3 (for hand rails) nipple rod.
76	301	Welded Clevis
77	302	Hanger Rod etc
78	303	Hanger rod assy. with clevis
79	304	Scalloped Bar fabrication - weight more than 1 kgs.
80	306	Temperature / Pressure tapping assy (CS) including machined components, rocker washer.
81	307	Temperature / Pressure tapping assy (AS) including machined comp., fill / vent / drain plug, spray plate.
82	309	Threaded clevis M20 to M27, gauge connector, anchor pivot pin, measurement rod, measurement assy, condensing loop assembly, coupling nut M27.
83	310	Threaded clevis M32 to M36 , nut M60.
84	311	Threaded clevis M45,. Fill pipe.
85	312	Hanger rod, Hanger rod assy with clevis, Tie rod, Tie rod assy, Deck hanger rod. Weight of these up to and 50 kg / No, foundation bolt with plate /rod up to and including 20 kgs.

86	316	Retainer - A
87	317	Retainer - C
88	318	Screwed Piece, Suspension Bolts,. CAP assembly
89	319	Machining Components (weight more than 100 grams and upto 5 kgs)
90	320	Washer plate, Buckstay corner plate, Buckstay link plate(All pl 40mm and above)
91	321	Fabrication of NMEJ frame, oil tank assembly with heater set, needle gate (CS), segmental bend fabricatiobn (less than or = 133mm dia.)
92	322	Hand rails and Hand rail posts (paintable) including hand ring , hand rails frame assembly.
93	323	Hand rails and Hand rail posts (Galvanizable).
94	324	Access door 100/250, 400/450, 610/610, 900/1800.
95	325	Elipitical door
96	326	Reducing stage (all types) - CS , orifice plate assembly machining with assembly
97	327	Reducing stage (all types) - AS
98	328	Water cooled door and scaffold door
99	329	Header with stub.
100	330	Machining components up to and including 50 grams by weight.
101	331	Machining components more than 50 grams and up to 100 grams by weight.
102	332	Oil gun assembly.
103	333	Fixing pin of length upto and including 250mm.
104	334	Fixing pin of length above 250mm.
105	335	Linkage assembly CS/AS made out of rod dia above 50mm.
106	336	Vertex finder
107	337	Air Nozzle Assy
108	340	Sliding gate up to and including 500mm opening
109	341	Sliding gate above 500mm opening
110	342	Scalloped Bar fabrication - of weight up to 1kg.
111	343	Pipe collar rolling , fabrication and machining
112	344	Pipe collar only machining
113	345	Tie rod R/R / LR upto M24 -including thread end protection thro' srewed in plastic cap
114	346	Tie rod R/R / LR from M25 to M 48 -including thread end protection thro' srewed in plastic cap
115	347	Tie rod R/R / LR from M 49 and above-including thread end protection thro' srewed in plastic cap
116	348	Blank flange, blind flange.
117	349	Hanger rod assembly - both end clevis, Hanger rod assembly with clevis and bracket
118	350	Girder pin connection
119	352	T.T.Burner Assembly - 500 MW.
120	353	T.T.Burner Assembly - less than 500 MW.
121	354	Oil system - LFO pump.
122	355	Oil system - HFO pump.
123	356	Heater, cooler and strainer of oil system.
124	357	Oil system skid assembly.
125	358	Coal valve - chain and motor operated upto 36".
126	359	Isolation gate assembly.
127	360	Gate assembly up to 22".
128	361	Gate assembly above 22".
129	362	Raw coal gate above 36".
130	363	Strainer assembly, heat exchanger assembly and cooler assembly of 24 PG.

131	364	Sheet metal work with sheet upto and including 3.15mm.
132	365	Fabrication work involving TIG root and Arc welding .
133	366	cyclone assembly (for recycling bed materials 48 PG)
134	367	Duct assembly of all types- with trial assembly
135	368	Small despatchable units with piece weight up to and including 25 kgs(of RS 001-005).
136	369	DUCTS--circular to any shape transition
137	370	CAF GASKETS /other Non-ferrous Gaskets up to and including 250 mm dia.
138	371	CAF GASKETS /other Non-ferrous Gaskets above 250 mm dia.
139	372	U- ROD 6mm to 24 mm dia- with or without threading
140	373	U- ROD 25mm to 50 mm dia- with or without threading
141	374	U- ROD 51mm dia- and above with or without threading
142	375	EYE BOLTS
143	376	Templates , sleeve pipes, shims
144	377	Temperature Probe with stellite welding

DISTANCE CHART

Project Site	Vizag	Bhilai	Durgapur	Trichy	Kolkata	Chennai	Jamshedpur	Rourkela
VALLUR (THIRUVALLUR- CHENNAI)	825	1282	1719	364	1689	32	1640	1567
NORTH CHENNAI	758	1234	1680	369	1668	37	1592	1550
DARIBA (RAJASTHAN) (CHITTOORGARH)	1626	1093	1533	2121	1614	2019	1606	1460
JHAJJAR(HARYANA)	1905	1300	1331	2504	1499	2208	1359	1403
DURGAPUR(WB)	898	799	---	2075	182	1680	200	435
MAUDA(MAUNDA), NAGPUR-DT.	830	221	1020	1433	1154	1139	921	674
MARWA(KORBA)	796	230	797	1784	997	1452	466	314
IISCO-BURNPUR	946	795	48	2093	230	1728	248	483
KODERMA (JHARKHAND)	1062	724	248	2202	430	1872	290	380
ANPARA (UP)	1427	728	599	2118	764	1900	641	682
UKAI (GUJARAT)	1486	929	1728	1733	1915	1699	1629	1382
SATPURA (MP)	1103	443	1288	1634	1359	1341	1173	994
BONGAIGAON (ASSAM)	1687	1927	814	2920	890	2568	1154	1205
NABINAGAR (BIHAR)	1141	658	369	2213	551	1881	397	422
GOINDWAL (PUNJAB)	2350	1650	1720	2820	1890	2731	1760	1800

PRICE VARIATION FORMULA FOR RAW MATERIALS IN THE 60,000 MT TENDER

ANNEXURE - P

The following Price Variation Clause will be applicable.

- (A) SAIL / JINDAL Price List published on the date of tender opening date will be taken as the basis. The prevailing rates for May '08 is enclosed (Annexure 1).
 (B) The landed cost at Trichy from Steel Plant will be taken as the “**BASE PRICE**”.
 (C) The landed cost for a raw material is arrived by taking into account the following:

(Ex -Plant Price + ED + CESS + EDUCATION CESS + CST) – CENVAT.

For Example: (Rate / MT)

Basic Rate of Plate 25 mm. IS 2062 Gr. B as on April 2008	-	Rs.38,950-00
ED 14% + CESS 2% + EDUCATION CESS 1%	-	Rs. 5,616-59
CST 3%	-	Rs. 1,337-00

TOTAL COST	-	Rs.45, 903-59
LESS CENVAT		Rs. 5, 616-59

NET COST PER MT (TOTAL COST – MODVAT)		Rs.40, 287-00

This is considered as the base price for Plate 25 mm. for the month of May 2008. Similarly for all the major raw materials that are required for fabrication of Column for a 500 MW is to be computed. This is enclosed as “Annexure-1”(11pages). On perusal the weighted average cost of raw material for supply of 500 MW Columns works out to Rs.40,895/- MT. This is considered as the raw material “**BASE PRICE** “ for supply of 500 MW Columns.

On a similar basis, the “**BASE PRICE**” **TWO** months prior to the IR or “Base Price” on the scheduled delivery date (excluding both the dates) whichever is earlier is to be computed based on the SAIL / Jindal price list applicable for that month. The” **BASE PRICE**” for the various schedules for the month of MAY 2008 is as under. This is based on the data arrived as in Annexure- 1 (11Pages) enclosed herewith.

Sl. No.	Schedule	250 MW	500 MW
01)	General Fabrication	40,270/-	40,430/-
02)	Auto Weld	40,260/-	40,020/-
03)	Column	39,910/-	40,895/-
04)	Duct	37,360/-	37,700/-

The increase / decrease in the Rate for each of the schedules would be governed by the following formula:

$$P_1 = P_0 + (S_1 - S_0)$$

Where **P₁** - Escalated / de-escalated price for each Schedule

P₀ - Contracted price for each schedule

S₁ - The MOU “**Base Price**” of SAIL or JINDAL as the case May be; Two months prior to actual despatch date or Scheduled Delivery Date; whichever is earlier

S₀ - The MOU “**Base Price**” of SAIL or JINDAL applicable on the Tender opening date.

PS. For details please refer to CD.

ANNEXURE “Q”

235-003

Page 01 of 02

**BHARAT HEAVY ELECTRICALS LTD: TIRUCHIRAPPALLI 14
NON-DESTRUCTIVE TESTING**

ASSESSMENT FORMAT – UT / MT / PT

Date:

01. Name of the Firm :

02 . Type of NDT : UT / MT / PT

03. Names of Operators with level :

Name S/sri	Method & Level	Certification Date	Re-certification Date
-----------------------	---------------------------	-------------------------------	----------------------------------

04. Particulars of Equipments

Method	Make & Model	Sl. No.	Date of Calibration	Due date for recalibration
---------------	-------------------------	----------------	--------------------------------	---------------------------------------

05 Consumables :

(a) Details of Probes :
Normal :
Angle :
TR :

(b) Magnetic Particles : Brand
Wet :
Dry :

Equipment for sensitivity check : Available/Not Available

(NOTE: Use additional sheets/enclose Copies of Certificates wherever required)

(c) Penetrant Test**Brand**

Cleaner :
Penetrant :
Developer :
Penetrant remover

Equipment for sensitivity check : **Available/Not Available**

06. IBR Approval : **Obtained/Not obtained.**
: **Valid upto**

07 BHEL Approval : **Valid upto**

08. Remarks :

**Representative of
Contractor**

**Surveyed by
NDT/BHEL**

Head/NDT

ANNEXURE "R"

235-002

Page 01 of 02

**BHARAT HEAVY ELECTRICALS LTD: TIRUCHIRAPPALLI 14
NON-DESTRUCTIVE TESTING/QUALITY**

ASSESSMENT FORMT - RT

Date:

01. Name of the Firm :

02 . Type of NDT : RT

03. Name of RSO :

04. Names of Site-in-charge :

:

:

:

:

05. Names of Operators with level :

**Name
S/sri**

Level

**Certification
Date**

**Re-certification
Date**

06. Particulars of Equipments

(a). X-ray/Gamma ray Sources

Make

Model

Sl.No.

Strength/Range

(b).Survey meter

Make and Model

Range

**Date of
Calibration**

**Date of
Recalibration**

(c).Dosimeter

:

Make and Model

Sl.No.

Range

(d).Illuminator

: Available/Not available

Brand

:

(e) Densitometer/Strip

: Available/Not Available

Make

: Calibrated on

Recalibration date

(NOTE: Use additional sheets/enclose Copies of Certificates wherever required)

07. a. Film Processing Facility : With thermostat/without thermostat - airconditioned
 b. Drier : Available/Not Available

08. Image Quality Indicators

ASTM	: Designations	Calibrated on
DIN		Sizes

09. Details of Safety Equipment

- (i) Warning lamps/Siren : Available/Not available
 (ii) Display Boards with Stand and rope : Available/Not available
 :
 (iii) Film badge Services : Available/Not available
 (iv) Tongs : Available/Not available

10. Details of Consumables

Processing chemicals	: Brand
Developer	:
Fixer	:
Wetting Agent	:
X-ray films	:
Screens (thickness)	:

11. IBR Approval : Obtained/Not obtained.
 : Valid upto

12. BHEL Approval : Valid upto

13. PAN Number

14. Radiography works undertaken :

13. Remarks :

Representative of
Contractor

Surveyed by
NDT/BHEL

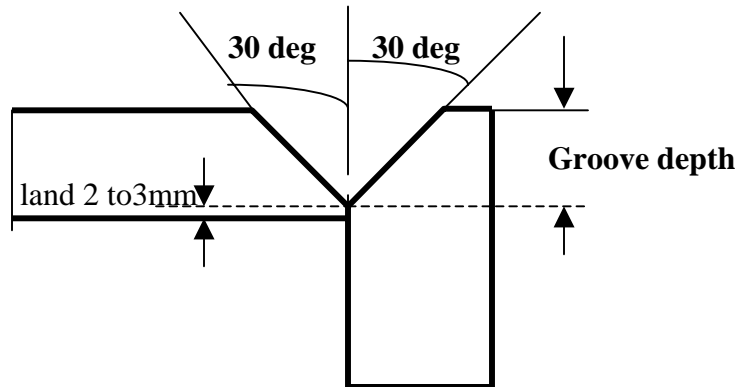
Head/NDT

ANNEXURE “S”

**BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI – 620 014
QUALITY CONTROL – OFF LOADING INSPECTION**

GROOVE DETAILS FOR BOX CORNER JOINT MEANT FOR COLUMN, POST & BRACINGS FOR SAW PROCESS:

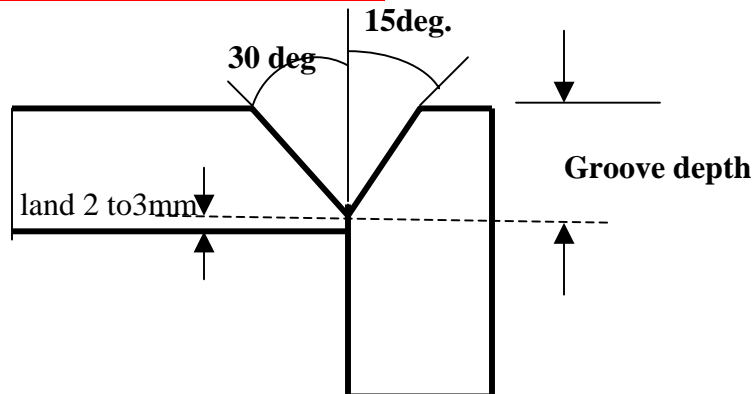
1) PLATE THICKNESS < 32mm:



Land 3mm, groove angle 30+30 deg. Root gap:0mm

Example: Plate t = 25mm, groove depth 22mm, land 3mm

2) PLATE THICKNESS = >32mm:



Land 3mm; groove angle 30+15 deg. Root gap:0mm

Example: Plate t = 63mm, groove depth 60mm, land 3mm
Plate t = 56mm, groove depth 53mm, land 3mm
Plate t = 50mm, groove depth 47mm, land 3mm

Sl.No	Name of the Firm and Address	Approved Methods	Valid upto
1	M/s G.B. NDT Engg. Services, E-52,Industrial Estate,Thuvakudi, Tiruchy-620015 Phone:(0431)2501112,2500891	RT, UT, MT, PT	31-05-2008
2	M/s C Premier NDE Services, CP-17, Electrical and Electronics Industrial Estate, Thuvakudi, Tiruchy 620015 Phone (0431)2500878	RT, UT	31-05-2008
3	M/s Super Quality Services, 95,SQS Building, Near Police Station, Palakkarai Main Road, Trichy-620001 Phone (0431)2415087,2414218, Fax-0431-2464218 E-Mail:sqs@vsnl.net	RT, UT, MT, PT	31-05-2008
4	M/s Metal Care Engg. Services Plot 13,14, B-1 Kether Manor,3rd Cross, North Extension, Thillai nagar,Trichy 620018 Phone(0431) 2762190, 2481593	RT	31-05-2008
5	M/s Industrial X-ray Inspection Company, Test House, 26, 2nd Street, Kalaimagal Nagar, Eekkattuthangal, Chennai 600 032 Phone: 044- 22251091, 22250690 e-mail: ixico@satyam.net.in	RT	31-05-2008
6	M/s Scaanray Metallurgical Services, C-12, Industrial Estate,Mogappair (West) Chennai 600 037 Phone: 044-26250651, 23762613 Fax 26358741 scaanray@vsnl.com e-mail:	RT, UT, MT,PT	31-05-2008
7	M/s Escon Technical Services (P).Ltd 32, Bharathy Park Cross Road 8 , Coimbatore, 641011 Phone:0422-2451263, 2450737 Fax- 2437271 e-mail:vivu@giasmdo1.vsnl.net.in	RT, UT,	31-05-2008
8	M/s Industrial Radiographic Inspection Company SP-111, South Avenue, Ambattur Industrial Estate, Chennai 600 058 Phone: 044-26253235,26250790,26255602, Fax-044- 26255838 e-mail : info@iricondt.com	RT	31-05-2008
9	M/s Testrade Technical Services, Vishnu Vihar,217, Dr. Ambedkar Road, P.O. Velandipalayam, Coimbatore 641 025. Phone: 0422-2450440 Site Office:165, SIDCO INDL.ESTATE, Malumichampatti, Coimbatore-641021 Phone:0422-2655772 Cell:9363242722	RT	31-05-2008
10	M/s Everest Industrial Radiographer, 189, Thyagaraja New St. No.3, Coimbatore 641 001 Phone: 0422-2472528 e-mail:everestndt@sify.com Site Office:1/25, Arisipalayam, Coimbatore-641032 Phone:0422-2638148,2638348, 2401842(K.Chockalingam) Cell:9843011031 (A.Rathinam)	RT	31-05-2008
11	M/s KGB Inspection Services, P-16, Electrical & Electronics Industrial Estate, Thuvakudi, Tiruchirappalli 620015 Phone (0431)2500164	RT, UT, MT, PT	31-05-2008
12	M/s Supreme Excel NDT Services, II Floor, Vairam Memorial Complex 24-A/B, Jeeva Street, Subramaniapuram, Tiruchirappalli - 620020 Phone:(0431)2333528, 2501241 e-mail:ndtsrvcs@yahoo.com	RT, UT, MT, PT	31-05-2008
13	M/s Evergreen NDT Engineers, No. 7, I Floor, Vairam Memorial Complex 24-A/B, Jeeva Street, Subramaniapuram, Tiruchirappalli 20- 620020 Phone(0431) 2333095, Cell-9842425765,9842435765	RT,UT	31-05-2008

14	M/s.NDE Inspections, 50,Raja Colony, 4th Cross,Collector Office Road, Trichy-620001. Phone (0431)2416388 mail:ndeinspections@sancharnet.in	UT, MT, PT	31-05-2008
15	M/s Technical Inspection Services 513-A6, Bharathi Road, Chinnavedampatti, Ganapathy, Coimbatore-641 006. Phone:0422-2667971	RT	31-05-2008
16	M/s Sri Vinayaga NDT Inspection Services, SF 303, Peria Thottam, Kadathur Road, Coimbatore- 641 107. Phone 0422-2653640	RT	31-05-2008
17	M/s Bharat Inspection Services, & Electronics Industrial Estate, Phone:0431-2500550 Mobile: 9444435196(Ramasamy), 9842536801(Shanmugavel) 9842302910(Robert) e-mail: ramasamyndt@rediffmail.com	RT, UT, MT, PT	31-05-2008
18	M/s Engineering Quality Inspection Services, Mettukuppam Road, Vanagaram, Phone:044-24764770, Fax:044-24764773, E-mail: jstephenraj.eqis@gmail.com	RT,UT,MT	31-05-2008
19	New No 9, Old No 22, Parthasarathypuram, North Usman Road, T.Nagar, Chennai 600 017. 42123180, Fax: 044-28142268, 9444062268, E-mail:uies@sify.com.	RT	31-05-2008
20	M/s Jai Inspection Agencies, Plot No 21, Natesan Nagar, Ayanampakkam, 095, Phone: 044-26533028, Chennai- 600 Fax: 044-26531770	RT	31-05-2008
21	M/s Sakthi Radiographic Inspection Company,, Gandhi Nagar, Walajapet 632 513 Phone 04172-230344, 245264	RT	31-05-2008
22	M/s UNIVERSAL NDT SYSTEMS 350 / 2C, Near M/s Rosver Steels Ltd,) KATTAMPATTI Villaage, Ganesapuram P.O S.S.Kulam (Via) Coimbatore-614 107 Phone:0422-2653446 Mobile:9363100792, 9944343201	RT	31-05-2008
23	M/s INSTITUTE OF INSPECTION TECHNOLOGY AND NDT RESOURCES, 31, Rubin Complex, IAS Nagar, Thiruverumbur, TRICHY- 620013 Phone 0431-2512269 Cell:Rajendran-9865007583, Shareef-9865407475 e-mail:info@iitndt.com	RT	17-01-2010
24	Ms.GLOBAL ENGINEERING&NDT SERVICES HASIMPUR, PATULIGRAM P.O, HOOGLY DISTRICT, WEST BENGAL- 712 501 Cell 09831609926(S.Das) ,9831626059(S.Sarkar)	RT	14-02-2010

Prepared by

Reviewed and Accepted by

(M.Manimohan)
DM / NDT

(R.J. Pardikar)
SDGM / NDT

ANNEXURE "U"

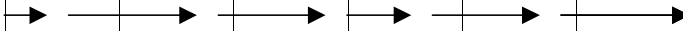
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VENDOR CODE :

AS ON

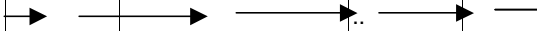
BOX COLUMN ACTIVITY CHART

MCL COLLECTION CUT & WELD BOX F/UP BOX WELD BASE PL WELD



END PL WELD

MCL COLLECTION CUT & WELD BOX F/UP BOX WELD

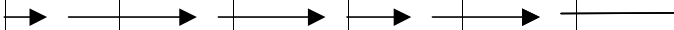


MCL COLLECTION CUT & WELD BOX F/UP BOX WELD END PL WELD



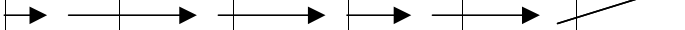
END PL WELD

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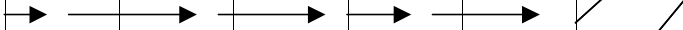
TRIAL ASSY

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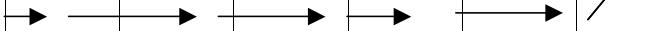
INSPN

MCL COLLECTION CUT & WELD BOX F/UP BOX WELD END PL WELD



S.B

MCL COLLECTION CUT & WELD BOX F/UP BOX WELD END PL WELD



H/O

PO NO

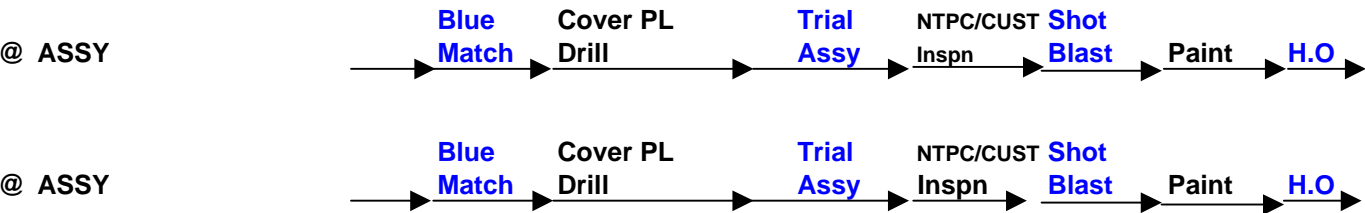
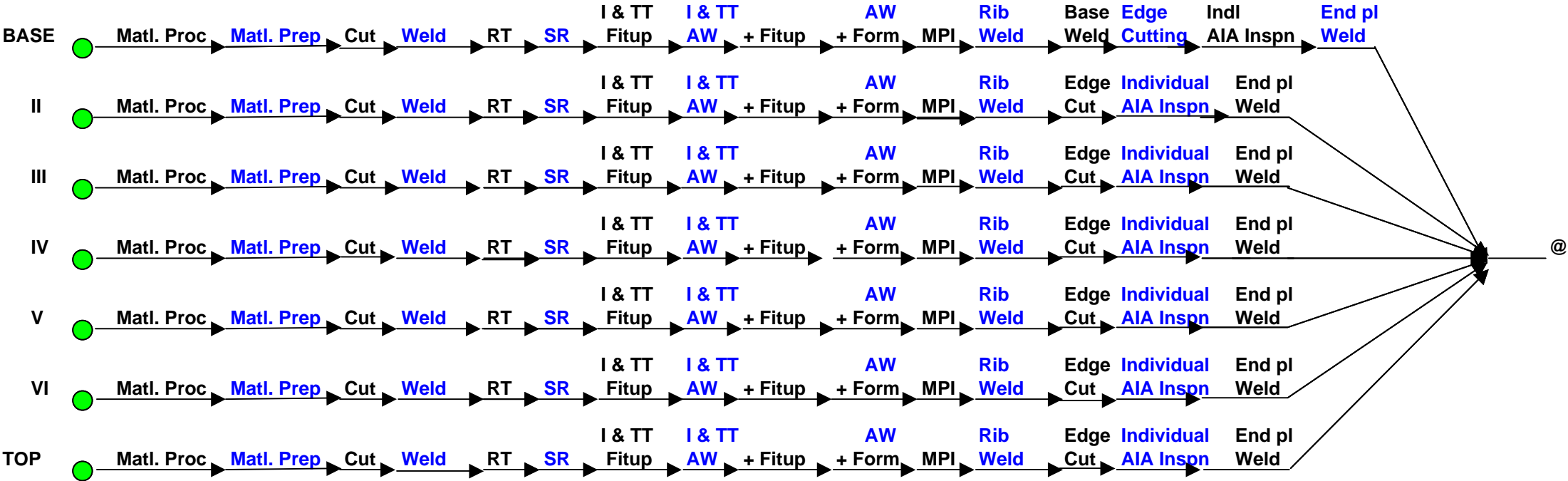
WORK ORDER

COL NO

WT

[illegible]

PLUS COLUMN



CUST	CUST NAME	COL NO	WT	VENDOR
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BHEL / TRICHY-620014
OUT SORCING DEVELOPEMENT

ANNEXURE "V"

Page: 01 of 01

REF:
TO

Date:

Dear Sir,

SUB: General feedback on Performance - reg.

REF: I) Our Purchase Order no: Dated

II) W.O.:DC NO:IR NO.....

III) SCHEDULE:

IV) Despatch Detail:

With reference to the above we have made a review of Performance on Quality, Delivery and service.

Please note the following feedback for taking corrective action in future supplies.

a) General Performance:.

b) Level of Performance:

i) **QUALITY:** The flg is site feedback on the Quality of the goods delivered to SITE.

ii) **DELIVERY:** As against the delivery period indicated in P.O. the actual supply has been completed only on ----- resulting in the delay of ----- months.

iii) **SERVICE:** We would like to remark about your service as

We request you to take note of this feedback and improve your performance to our fullest satisfaction.

Further, we would like to be informed of the actions planned/initiated at your end to improve the performance in the above areas for the subsequent supplies/future orders.

Thanking you.

For and on behalf of
BHARAT HEAVY ELECTRICALS LTD

EXECUTIVE / OUT SOURCING

Vendor Information System - Cleared Bill Details - Microsoft Internet Explorer

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Address http://vis.bheltry.co.in/vis/outsourcing/payment02.jsp?what=C

Links

B2B SERVICES
ENTERPRISE RESOURCE PLANNING
BHARAT HEAVY ELECTRICALS LTD
TRICHY -14.

MISSION
 To be an Indian leader in providing Engineering Enterprise providing Total Business Solutions through Quality Products, Systems & Services in the fields of Energy, Industry, Transportation, Infrastructure and other related services.

VALUES
 To be an Indian leader in providing Engineering Enterprise providing Total Business Solutions through Quality Products, Systems & Services in the fields of Energy, Industry, Transportation, Infrastructure and other related services.

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Dr E.KIRUBAKARAN

CLEARED BILL DETAILS *Date : 19-4-2008*

select

From: To:

Submit

Best viewed in 1024 X 768 True Color (32 bit)

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start e b2b_facilities - Micros...


Address 10:49 AM

AD PLAN-CUSTOMERWISE - Microsoft Internet Explorer

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Address http://vis.bheltry.co.in/vis/outsourcing/custadplan.jsp



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Dr E.KIRUBAKARAN

Outsourcing plan -CUSTOMERWISE

STAGE CUST PG MA DU

U5/0635-HT-375-1-05-137	0635	Dadri 500mw	DM/MK
30061 G.K & SONS ENGG ENTERPRISES PVT. LT		mail@gksons.com	8200113863
PO DT:23.03.2008	TER DT:24/08	RATE SCH:	
DU CATEGORY - B - WT :8.24		LAST CLEARED DATE:23.03.2008	
001(8)8.24 ;			
U5/0637-HT-375-1-05-137	0637	DADRI 6	DM/MK
30061 G.K & SONS ENGG ENTERPRISES PVT. LT		mail@gksons.com	8200113863
PO DT:23.03.2008	TER DT:24/08	RATE SCH:	
DU CATEGORY - A - WT :8.24		LAST CLEARED DATE:23.03.2008	
001(8)8.24 ;			
U5/0635-HT-388-1-05-147	0635	Dadri 500mw	DM/MK
30061 G.K & SONS ENGG ENTERPRISES PVT. LT		mail@gksons.com	8200113863

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