20	SCOPE	OF	CHIDD	IV	Mr.		-
free M	SOUTH	VI	SUFF	1 1	(31-	WU HIR!	ĸ.

The scope of supply includes design, engineering, and procurement of materials, manufacture, packing & forwarding supply of SIX Nos. of Waste Heat Recovery Boilers consisting of the following equipment.

It	em No.	Description	Q'ty	Total weight in tons	].	THERM	MAX L	TD.	N/	LWA :	55	iGE	Rem
					BD	DD	SP	ER	BD	WD.	SP	ER	
3D-		Design; DD - Detailed			y; ER-	Erecti	ion;VD	- Vend	dor De	sign/D	etailir	ng .	
	1.1		-	ION	-	-		1					-
	1	Front wall & Headers	1 set	1	0	0	0		-			0	į
	1.2	Side walls & Headers	2 sets		0	0	0					0	+
	1.3	Rear wall & Headers	1 set		0	0	0		43			0	
	1.4	Hoppers (fabrication)	2 sets		0	0					0	0	
	1.5	Screen section	1 lot		0	0	0						
	1.6	Buckstays	1 lot		0	0	-		- 1		_	0	
-6	es:					-					0	0	

- vill be sent pre-fabricated in panel form with top and bottom headers, as the case may be and access and other openings as required. The membrane walls will he installed and welded to each other as well as with support tubes and screen tubes at site by erection contractor to form gas tight
- 1.2. The screen tubes and support tubes with tube support cleats will be pre-fabricated at shop and final installation and erection contractor will do welding at site.

2	SUP	ERHEATER - I & II			T		 -	
1	2.1	Loose coils	1 lot	10	10	10	 -	
	2.2	Headers with	The second secon	15	+=-	10		0
		stubs	2 Lot	0	0	0		0
	2.3	Casing +	1 lot	-10	-			
		refractory	1 101	- 0	0		0	0

## Notes:

2.1. The coils shall be pre-fabricated and supplied loose. The header with stubs welded to the headers ( to match with coils), nozzles for steam connection and end covers duly pre-fabricated shall be supplied loose.

3	ATTE	MPERATOR		1	1	1 1		 	
=_	3.1	Attemperator assembly	1 set	0	0	0	-	0	

3.1 The attemperator with necessary nozzles & internals shall be sent as a complete assembly. Erection contractor at site shall do spray water connection and steam connection to the attemperator.

L	tem No	Description	Q'ty	Total weight in tons		THER	MAX L	TD.	NA	LWA	SPON	IGE	Re
	100 000		-		BD	DD	SP	ER	BD	VD	SP	ER	
BC	)- Basic	Design; DD - Detailed	Design;	SP - Suppl	ly; ER	- Erect	ion,VE	- Vend	dor De	sign/D	etailir	na	
4	CON	VECTION BANK	T -		-	-							
-	4.1	Loose heat	1 lot		0	0	0			·		0	
	4.2	Top and Bottom drums duly drilled	1 lot		0	0	0	-				0	_
	4.3	Casing + Refractory			0	0	1		-	-	0	0	_
5	STEA 5.1	M DRUM Shell							1				
5	5.1	Shell	1 no.		0	0							
	5.2	Dished ends	2		0	ō	0					0	
_	-		nos		38753	Access 1		1 1	1				
	5.3	Demister pads	nos.		^	-	-						
	5.4	Demister pads Saddles	1 lot 2		0	0	0					0	
	5.4	Saddles Manholes	1 lot 2 nos. 1	-16-	March Control of all		_						
	5.4	Manholes  Nozzles for various	1 lot 2 nos.	- 16.	0	0	0					0	
5.2 / E	5.4 5.5 5.6 The conhe prese	Manholes  Nozzles for various connection  mplete steam drum as ence of IBR inspector int, installation of stea contractor. ( However after Alkali boile at the contractor of t	1 lot 2 nos. 1 nos. 1 lot ssembly and is pr m drum	, fitting / w	O O O uly shin neceelding	O O O O O O O O O O O O O O O O O O O	O O oricated	connie	CHOIIS.	Company of		O O ested in	
5.1 5.2 /	5.4 5.5 5.6 The conhe prese	Manholes  Nozzles for various connection  mplete steam drum as ence of IBR inspector int, installation of stea contractor. ( However after Alkali boile at the contractor of t	1 lot 2 nos. 1 nos. 1 lot ssembly and is pr m drum	, fitting / w	O O O uly shin neceelding	O O O O O O O O O O O O O O O O O O O	O O oricated	connie	CHOIIS.	Company of		O O ested in	
5.1 5.2 /	5.4 5.5 5.6 The conhe prese	Manholes  Nozzles for various connection  mplete steam drum as ence of IBR inspector int, installation of stea contractor. ( However after Alkali boilout by e OMISER	1 lot 2 nos. 1 nos. 1 lot ssembly and is prim drum, the den	fitting / winister pad : contractor.)	O O O o uly sh n nece elding shall i	O O O O O O O O O O O O O O O O O O O	O O O O O O O O O O O O O O O O O O O	connie	CHOIIS.	Company of		O O ested in	
5.1 5.2 /	5.4 5.5 5.6 The conhe present section sosition a	Manholes  Nozzles for various connection  mplete steam drum as ence of IBR inspector int, installation of stea contractor. ( However of the Alkali boilout by e OMISER  Coils	1 lot 2 nos. 1 nos. 1 lot ssembly and is pr m drum	, fitting / winister pad : contractor.)	O O O uly shin neceelding	O O O O O O O O O O O O O O O O O O O	O O oricated	connie	CHOIIS.	Company of	be o	O O ested in	

Purchase Order NSIL to TL

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	em No.	Descrip	uon	Q'ty	Total weight in tons		angione.	MAX L		N		SPO	NGE	Ren
						BD	DD	SP	ER	BD	VD	SF	ER	1
-														
BD.	- Basic L	esign; DD - D	etailed	Design;	SP - Supp	ly; EF	R- Erec	tion,VI	D- Ven	dor D	esign/	Detail	ing	
Not														
		ono mizor cho	II be se						1.0	910	\$1900		30 32	
at s	ite	onomizer sha	ii be se	int to site	in loose to	orm a	na wiii	be nitte	a & pos	stion	welde	d by E	rectio	n contra
a. s				8 g 2	Warner o				+ =					
	• An e	conomizer me	ndula s	shall cor	ciet of land		ila the						aska Purnasan	
	sont	blowers. The	cacina	materia	Sist Of 1005	se co	is the	casing	will na	ve ne	cessa	ry ope	ening	for acce
23	- The	coils shall be	provide	matena d with a	occessor e	nure s	snall bi	e in oth	erssc	ope.				+:
	· Inc	cons shan be l	provide	u will n	ecessary c	onne	cuons /	neade	ers					
7	PISE	RS & DOWNC	OMED	•		7	_	1		1	-	_	-	
-	7.1	Pipes	OWIER	1 lot		0	-	-	-	-		-	-	
-	7.2	Bends & fitti				0	.0	0	-	100			0	
Note		Dends & mu	ngs	1 lot		0	0	0		15	1		0	1
		rs & Down co												
Erec	ction Cor	ication of the stractor.	Same	at grou	in unit uss			ā.	-				,	=
Erec	ction Cor	itractor.	Same	at groun	and and		,	4					,	
Erec	SOOT	BLOWERS						1						
Erec	ction Cor	BLOWERS Retractable		2 Nos.		0	0	0				-	0	
Erec	SOOT 8.1	BLOWERS Retractable		2 Nos.	- 10	0	0	0					0	
Erec	SOOT 8.1	BLOWERS Retractable blowers Rotary blow	ers	2 Nos.	- 10	0		1					0	
Erec	SOOT   8.1     8.2   8.3*	BLOWERS Retractable blowers Rotary blow	ers el	2 Nos. 6 Nos. 1 No.	- 10	0	0	0			0	0	0 00	
Erec	SOOT 8.1	BLOWERS Retractable blowers Rotary blowers Control Panel From C Panel to	ers el abling ontrol Soot	2 Nos.	- 10	0	0	0			0		0	
Erec	8.2 8.3* 8.4	BLOWERS Retractable blowers Rotary blowers Control Panel From Control to blowers motors	ers el abling ontrol Soot ors	2 Nos. 6 Nos. 1 No. 1 lot	- 10	0 0 0	0	0			_	0	0 0 0 0	
Erec	SOOT   8.1     8.2   8.3*	BLOWERS Retractable blowers Rotary blowers Control Panel From Control to blowers mot Soot both series and series are series and series are series and series and series and series are series and series and series and series are seri	ers el abling ontrol Soot	2 Nos. 6 Nos. 1 No. 1 lot	- 10	0	0	0			_	0	0 00	
B .	8.2 8.3* 8.4	BLOWERS Retractable blowers Rotary blowers Control Panel From Control to blowers motors	ers el abling ontrol Soot ors	2 Nos. 6 Nos. 1 No. 1 lot	- 10	0 0 0	0	0			_	0	0 0 0 0	
8 *Not	8.2 8.3* 8.4 8.5	BLOWERS Retractable blowers Rotary blowers Control Panel Form Control to blowers mot Soot business and Supports	ers el abling ontrol Soot ors	2 Nos. 6 Nos. 1 No. 1 lot		0 00 0	0	0			0	0 0	0 0 0 0	
8 *Not	8.1 8.2 8.3* 8.4 8.5	BLOWERS Retractable blowers Rotary blowers Control Panel Form Control to blowers mot Soot business mot Supports	ers el abling ontrol Soot ors elower	2 Nos. 6 Nos. 1 No. 1 lot		0 00 0	0	0		ub the	0	0 0	0 0 0 0	
8 Not	8.1 8.2 8.3* 8.4 8.5	BLOWERS Retractable blowers Rotary blowers Control Panel From Control to blowers mot Soot be Supports  Rotary blowers control to blowers control to blower c	ers el abling ontrol Soot ors blower	2 Nos. 6 Nos. 1 No. 1 lot		0 00 0	0	0		ub the	0	0 0	0 0 0 0	
8 *Not	8.2 8.3* 8.4 8.5 es:	BLOWERS Retractable blowers Rotary blower Control Panel Power confrom C Panel to blowers mot Soot b Supports  Lower control   WATER PIPIN	ers el abling ontrol Soot ors blower	2 Nos. 6 Nos. 1 No. 1 lot		0 00 0	0	0			O e sam	0 0	0 0 0 0	
8 *Not	8.1 8.2 8.3* 8.4 8.5	BLOWERS Retractable blowers Rotary blowers Control Panel From Control blowers mot blowers mot Supports  Rotary blower control blowers control blower control	ers el abling ontrol Soot ors blower panel 7	2 Nos. 6 Nos. 1 No. 1 lot		0 00 0	0	0		ub the	0	0 0	0 0 0 0	
8 Not	8.2 8.3* 8.4 8.5 es:	BLOWERS Retractable blowers Rotary blowers Rotary blower Control Panel Power confrom C Panel to blowers mot Soot b Supports  lower control   WATER PIPIN FROM Water treatment	ers el abling ontrol Soot ors blower	2 Nos. 6 Nos. 1 No. 1 lot		0 00 0	0	0			O e sam	0 0	0 0 0 0	
8 *Not	8.2 8.3* 8.4 8.5 es: or sootb	BLOWERS Retractable blowers Rotary blowers Rotary blower Control Panel to blowers mot Soot b Supports  lower control WATER PIPIN FROM Water treatment Plant	ers el abling ontrol Soot ors blower  panel 7 IG TO Deae or	2 Nos. 6 Nos. 1 No. 1 lot		O O O	O O O	O O O O O O O O O O O O O O O O O O O			O e sam	0 0	0 0 0 0 0	NONIE
8 *Not	8.2 8.3* 8.4 8.5 es:	BLOWERS Retractable blowers Rotary blowers Rotary blower Control Panel Power confrom C Panel to blowers mot Soot b Supports  lower control   WATER PIPIN FROM Water treatment	ers el abling ontrol Soot ors blower  panel TO Deae or	2 Nos. 6 Nos. 1 No. 1 lot		0 00 0	0	0			O e sam	0 0	0 0 0 0	NONIE
8 *Not	8.2 8.3* 8.4 8.5 es: or sootb	BLOWERS Retractable blowers Rotary blowers Rotary blower Control Panel to blowers mot Soot b Supports  lower control WATER PIPIN FROM Water treatment Plant Deaerator	ers el abling ontrol Soot ors blower  panel TO Deae or FWP suction	2 Nos. 6 Nos. 1 No. 1 lot		O O O O	O O C,custo	O O O			O e sam	0 0	0 0 0 0 0	
8 Not	8.2 8.3* 8.4 8.5 es: or sootb	BLOWERS Retractable blowers Rotary blowers Rotary blower Control Panel Power control Soot b Supports Rotary blowers mot Soot b Supports Rotary blower control WATER PIPIN FROM Water treatment Plant Deaerator	ers el abling ontrol Soot ors blower  panel TO Deae or  FWP suction	2 Nos. 6 Nos. 1 No. 1 lot 1 lot crat -		O O O	O O O	O O O O O O O O O O O O O O O O O O O			O e sam	0 0	0 0 0 0 0	NONIE
8 Not	8.2 8.3* 8.4 8.5 es: or sootb	BLOWERS Retractable blowers Rotary blowers Rotary blower Control Panel to blowers mot Soot b Supports  lower control WATER PIPIN FROM Water treatment Plant Deaerator	ers el abling ontrol Soot ors blower  panel 7 IG TO Deae or FWP suction	2 Nos. 6 Nos. 1 No. 1 lot 1 lot crat -		O O O O	O O C,custo	O O O			O e sam	0 0	0 0 0 0 0 DCS.	NONIE
8 *Not	8.2 8.3* 8.4 8.5 es: or sootb	BLOWERS Retractable blowers Rotary blowers Rotary blower Control Panel Power control Soot b Supports Rotary blowers mot Soot b Supports Rotary blower control WATER PIPIN FROM Water treatment Plant Deaerator	ers el abling ontrol Soot ors blower  panel TO Deae or FWP suction FWR	2 Nos. 6 Nos. 1 No. 1 lot 1 lot crat -		O O O O	O O C,custo	O O O			O e sam	0 0	0 0 0 0 0 DCS.	NONIE

Ite	m No.	Desc	riptio	on Q		Total weight in tons	1	HERM	AAX LT	D.	N/	LWA	SPO	VGE	Rei
							BD	DD	SP	ER	BD	VD	SP	ER	
BD-	Basic D	esign; DD	- Det	ailed Desi	gn; SF	- Suppl	y; ER	Erect	ion,VD	- Vend	dor De	sign/D	etaili	ng	
		- control station		izer	lot										
W.	9.5	Econom	iser	Steam drum	1 lot		0	0	0		) is		4	0	
	9.6	FW Pipir	ng	Attemp	1 lot		0	0	ò					0	
	9.6	FW Pu		Deaerat	1 lot		0	0	0					0	incl. Leak
10		FROM	ТО												
9.1	The Fee Pre-fabri	d water pip ication of t	es sh the s	nall be sei ame at gi	nt to sit	te in loos and ass	e forr	n. / and i	welding	in po	sition	shall	be ca	rried	out by
	10.1			perhaeter	1 lot		0	0	0					0	
		drum	-1												
	10.2	Superh eater -1	F	emperato	1 lot		0	0	0					0	
	10.3	Attemp erator	-11	erheater	1 lot		0	0	0					ó	
	10.4	Superh eater -		n steam o valve	1 lot		0	0	0		æ			0	
	10.5	Main steam stop valve	Mai hea	n steam der	-						0	0	0	0	
	10.6	Main steam line	Soc	ot wers	1 lot		0	0	0					0	
	10.7	Venting points	Safe	e height	1 lot	1 1	0	0	0					0	Ref r 10.2
	10.8	SH line	Star	rt up vent re	1 lot		0	0	0					0	
	10.9	Start up vent valve	Sile	ncer	1 lot		0	0					0	0	
	10.10	Superh eater Safety valve		ncer	1 lot		0	0					0	0	
	10.11	Safety valve of	Atm	osphere	1 lot		0	0	0			-		0	

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									(2)					
									130					
													10	
Ite	m No.	Desc	ription	Q'	ty	Total	1	HERI	MAX LT	TD.	I NA	LWA	SPON	IGE
		03335456 52		1002500		weight in tons								
							BD	DD	SP	ER	BD	VD	SP	E
BD-	Basic D	esign; DD	- Detailed	Desig	gn; Si	P - Suppl	y; ER	Erec	tion,VD	- Ven	dor De	sign/D	Detailir	ng
Not		Drum												L
all p		non IBR is i	ER PIPING		cope.				,					
- Table	11.1	FROM	TO Battery I	imit	1lot		-		-		0	0	0	0
- 3.4			(As per Diagram	P&I i)										1
	11.2	Battery limit	Individua equipme		1lot	1	0	0	0					0
	95:								9					
Note	4	I mamusis						4					_	
Note 12	4	FROM	ТО						-		-		-	-
	4	FROM Steam drum	TO Blow down	1 lot	t		0	0	0					0
	DRAI	FROM Steam drum Individu	Blow down tank Blow down	1lot			0	0	0					
	DRAII	FROM Steam drum Individu	Blow down tank Blow	1lot	1									0
12	12.1 12.2 12.3	FROM Steam drum Individu al drain points Blow	Blow down tank Blow down tank Nearest	1lot	1		0	0	0					0
12 Note	12.1 12.2 12.3	FROM Steam drum Individu al drain points Blow down tank	Blow down tank Blow down tank Nearest surface	1lot	1		0	0	0					0
12	12.1 12.2 12.3	FROM Steam drum Individu al drain points Blow down tank ERS For	Blow down tank Blow down tank Nearest surface	1lot	1		0	0	0				0	0
12 Note	12.1 12.2 12.3	FROM Steam drum Individu al drain points Blow down tank	Blow down tank Blow down tank Nearest surface trench	1lot			0	0	0				0 00	0

Ite	m No.	Desci	ription	Q'ty	Total weight in tons	Т	HERN	IAX LT	D.	NA	LWA S	SPON	GE	Re
						BD	DD	SP	ER	BD	VD	SP	ER	
BD-	Basic D	esign; DD	- Detailed I	Design;	SP - Suppl	y; ER-	Erecti	on,VD	- Ven	dor De	sign/D	etailin	g	
14	DUCT	ING:												1
1		FROM	TO					1.	- 4					
	14.1	ABC outlet	Boiler inlet	1		0	0					0	0	
	14.2	Boiler outlet	Econo miser inlet	1		0	0		-			0	0	
	14.3	Econo miser outlet	ESP inlet	1	100	0	0					0	0	-
	14.4	ESP	ID fan inlet	1		0	0					0	0	
	14.5	ID fan	Stack	1	,	0	0			94		0	0	
Note	18:	- Canot					1		-			_		
15	FIELD	INSTRUM	ENTS					T			1			
	15.1	As per lis	the second section is not a second section of the second section is not a second section of the second section	1		0	0	0					0	Ref
	15.2	Instrume	nt	1	35	0	0	0					0	Ref
Note		abling from	n the instru	ments t	o DCS, sha	all be b	y NSII							
16		ES & MOU				I				78				
	16.1	As per Diagram	P & I	1		0	0	0					0	
Note	s:							•						
17		PAINTIN	ic							-				
11	17.1	Shop	primer	1		0	0	0					0	
	17.2		painting	-		10						0	0	
and oxide	The sho s of prim storage. e / linsee Supply	op-assemb ner painting Internal s	eled parts s shall be a surfaces sl inting and	ipplied of hall be n Site sur	on all extern of be paint face prepa	ration,	faces, eat tra prime	in ord nsfers	er to p urface	revent s shall final pa	rusting be su	of producing during itably	imer ng trai coate be do	nspo d wit

Ite	m No.	Description	Q'ty	Total weight in tons	Т	HERM	IAX LT	D.	NA	LWA	SPON	GE	Rem.
					BD	DD	SP	ER	BD	VD	SP	ER	
BD-	Basic D	esign; DD - Detailed I	Design;	SP - Suppl	y; ER-	Erecti	on,VD	- Vend	lor De	sign/D	etailin	g	
18	EXPA	NSION JOINTS				1	1			1	T		
10	18.1	At inlet of boiler	1 no.		0	-		-	-	0	0	0	-
-	18.2	At other ducting	1 110.		0	-				0	0	a	
	10.0							1					
		pansion joints will be o	engineer	red based	on The	ermax	Specif	ication	by ve	ndor 8	to be	e erect	ed by Sit
19	STAC		Lucian and A	Grownings to									
	19.1	Stack and its components.	1 no. for 2 boiler	15	0	0					0	0	
	nney hei	ght calculation tobe		50	ex. De	tail En	gineer	ing will	be do	ne Th	erma	к	
20		TRO STATIC PRECI		R	_		-			-	-		
	20.1	ESP & its components, Designed for 70 mg/Nm3 of dust @ outlet of ESP	1 Per boiler		0					0	0	0	
Note													
21		ED DRAFT FAN										_	
_	21.1	ID FAN	1		0		_			0	0	0	
	21.2	Drive	1		0				_	0	0	0	
	21.3	Coupling	1		0		_			0	0	0	
	21.4	Inlet damper	1		0					0	0	0	
NI-4													
Note													
	s:	HING MATERIAL					1		1	1		1	
Note	s:	HING MATERIAL All earthing	1						0	0	ó	0	
	EART	All earthing	1						0	0	0.	0	
22	EART 22.1 22.2	All earthing material Earth pits											
22	EART 22.1 22.2 REFR	All earthing material Earth pits									0	0	
22	EART 22.1 22.2	All earthing material Earth pits			0	0						0	
	EART 22.1 22.2 REFR	All earthing material Earth pits	1		0 0	0 0					0	0	

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Item No. Description Q'ty Total weight weight in tons BD DD SP ER BD VD SP BD-Basic Design; DD - Detailed Design; SP - Supply; ER- Erection, VD - Vendor Design/Detailin DCS 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
BD   DD   SP   ER   BD   VD   SP
BD Basic Design; DD - Detailed Design; SP - Supply; ER - Erection, VD - Vendor Design/Detailin  24 DCS
BD   Basic Design; DD - Detailed Design; SP - Supply; ER - Erection, VD - Vendor Design/Detailin
24.1   DCS
Notes: 24.1 The engineering, supply and erection of the control panel will be carried out by NALWA Service of the control panel will be carried out by NALWA Service of the control panel will be carried out by NALWA Service of the control panel will be carried out by NALWA Service of the control panel will be carried out by NALWA Service of the control panel will be carried out by NALWA Service of the control panel will be carried out by NALWA Service of the carried out by NALWA Service out the carried out the
25.1   Common silencer for Superheater safety valve and start-up vent valve   Notes:     26   INSULATION   26.1   On steam drum   1   O   O   O   O   O   O   O   O   O
26
26.1   On steam drum   1
26.1   On steam drum   1
26.2   On Boiler
Down comers   C   Down comers   Do
26.5 On Ducting 1 O O O O O O O O O O O O O O O O O O
26:7   On other parts   1
Notes:  27 SAMPLE COOLERS  27.1 On Saturated 1per Doiler  27.2 On Superheated 1per Doiler  27.3 On Blow-down 1 per Doiler  27.3 On Blow-down 1 per Doiler  Notes:  28 MCC  28.1 MCC and its 1 Doiler  Notes:  28.1 The supplier shall provide with peressany electrical loads and their guestive and guestive
27.1 On Saturated 1per boiler  27.2 On Superheated 1per boiler  27.3 On Blow-down 1 per boiler  27.3 On Blow-down 1 per boiler  Notes:  28 MCC  28.1 MCC and its 1
27.1 On Saturated 1per boiler  27.2 On Superheated 1per steam line boiler  27.3 On Blow-down 1 per line boiler  Notes:  28 MCC 28.1 MCC and its 1 accessories  Notes:
Steam line boiler  27.2 On Superheated 1per boiler  27.3 On Blow-down 1 per line boiler  Notes:  28 MCC  28.1 MCC and its 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Steam line   Boiler
Notes:  28 MCC  28.1 MCC and its 1  accessories  Notes:  28.1 The supplier shall provide with peressary electrical loads and their guestines hall by a significant form.
Notes:  28 MCC  28.1 MCC and its 1  accessories  Notes:  28.1 The supplier shall provide with peressary electrical loads and their quarter to NALLINA CO
Notes:  28.1 MCC and its 1  accessories  Notes:
Notes:  28.1 MCC and its 1  accessories  Notes:
Notes:  28.1 The supplier shall provide with necessary electrical loads and their guarantees and their supplier.
28.1 The supplier shall provide with necessary electrical loads and their greath to MALINA CO
29 CIVIL  29.1 Civil load data 1 lot 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Notes: N.A.
ACTS DON

BD- Basic Design; DD - Detailed Design; SP - Supply; ER- Frection, VD- Vendor Design/Detailing  30		em No.	Description	Q'ty	Total weight in tons		-01-220-	VIAX LT		N	ALWA	SPO	NGE	Ren
30.1 Issue of certificates of materials supplied by vendor  30.2 Site IBR activities 1 O O O O O O O O O O O O O O O O O O						BD	DD	SP	ER	BD	VD	SP	ER	
30.1 Issue of certificates of materials supplied by vendor  30.2 Site IBR activities 1 O O O O O O O O O O O O O O O O O O	BD	- Basic I	Design; DD - Detailed	Design;	SP - Suppl	y; ER-	Frecti	ion,VD	Vend	dor D	esign/[	Detaili	ng	
30.1 Issue certificates of materials supplied by vendor  30.2 Site IBR activities 1						_	1	1				_		
30.2 Site IBR activities   1			issue of certificates of materials supplied			0	0					Q		
Notes: 30.1 For materials procured directly from Vendors, Thermax shall arrange necessary IBR certificates of from them 30.2 Submission of such certificates to local / state / other IBR authority, fixing dates for ground inspection / notion and identification of the scope of the submission of such certificates to local / state / other IBR authority, fixing dates for ground inspection / notion and identification of the scope of the submission of such certificates to local / state / other IBR authority, fixing dates for ground inspection / notion spection / notion and identification in the scope of the submission of the scope of the scope of the submission of the scope of t		30.2	Site IBD paticities	-				*	3					
30.1 For materials procured directly from Vendors, Thermax shall arrange necessary IBR certificates of from them 30.2 Submission of such certificates to local / state / other IBR authority, fixing dates for ground inspection / nspections, radiography of welded joints, hydraulic testing (both internal and IBR) and all other work related in the scope of the second state of the second s	Vinte		one intractivities	1						0	0	0	0	
Structure   Supervision of 1   Comparison of 1	30.2 sp dia rec	2 Subm ections, in Boiler tion con	ission of such certificated radiography of welder radiography of welder Regulation Authority stractor.	ites to loc od joints, I and othe	ral / state / d nydraulic te r Regulator	other I esting ( ry Auti	BR au (both in horities	thority, nternal s / Loca	fixing of and IE II Auth	dates BR) a orities	for gro nd all o s shall	ound in other in	nspec work re the scr	tion / oth elated wi ope of Si
31.3   Ladders	rec	n Boilei tion con	r Regulation Authority stractor.	and othe	al/state/ nydraulic te r Regulato	ry Auti	horities	thority, nternal s/Loca	fixing of and IE II Auth	dates BR) a orities	for gro	ound i	nspec work re the sc	tion / oth elated wi ope of Si
staircases  31.4 Foundation bolts 1	rec	STRU	Regulation Authority stractor.  ICTURE Boller supporting structure	and othe	al / state / e nydraulic te r Regulato	ry Auti	horities	thority, nternal s / Loca	fixing of and IE I Auth	dates BR) a orities	for gro	be in	work re	tion / other
for structures  SUPERVISION OF E & C  32.1 Supervision of 1 Erection &	ndia rec	STRU 31.1	Regulation Authority stractor.  CTURE Boiler supporting structure Boiler Operating platform	and othe	r Regulato	o O	norities	thority, nternal s / Loca	fixing and le	dates BR) a orities	for gro	be in	work rethe so	tion / oth alated wi ope of Si
SUPERVISION OF E & C  32.1 Supervision of 1 O O O O O	ndia rec	STRU 31.1 31.2 31.3	Regulation Authority stractor.  CTURE Boller supporting structure Boiler Operating platform Ladders & staircases	and othe	r Regulato	o O	o	thority, nternal s / Loca	fixing ( and !E	dates 3R) a orities	for ground all of shall	be in	work rethe sco	tion / oth- elated wi ope of Si
32.1 Supervision of 1 OOOO	ndia erec	STRU 31.1 31.2 31.3	Regulation Authority stractor.  CTURE  Boiler supporting structure  Boiler Operating platform  Ladders & staircases  Foundation bolts	and othe	r Regulato	O O	O	thority, nternal	fixing ( and IE II Auth	dates BR) a orities	for gro	o o	work rethe sco	tion / oth- elated wi ope of Si
32.1 Supervision of 1 O O O O	ndia erec	STRU 31.1 31.2 31.3	Regulation Authority stractor.  CTURE  Boiler supporting structure  Boiler Operating platform  Ladders & staircases  Foundation bolts	and othe	r Regulato	O O	O	thority, nternal	fixing e and IE I Auth	dates BR) a orities	for gro	o o	work rethe sco	tion / oth- elated wi ope of Sit
commissioning	ndia rec	STRU 31.1 31.2 31.3 31.4	Regulation Authority stractor.  ICTURE Boller supporting structure Boiler Operating platform Ladders & staircases Foundation bolts for structures	and othe	r Regulato	O O	O	thority, nternal	fixing and IE	dates BR) a orities	for gro	o o	work rethe sco	tion / oth- elated wi ope of Si
otes: 2.1 Thermax will supervise errection & commissioning of Total boiler.	otes	STRU 31.1 31.2 31.3 31.4 s:	Regulation Authority stractor.  CTURE  Boiler supporting structure  Boiler Operating platform  Ladders & staircases  Foundation boits for structures  RVISION OF E & C  Supervision of	and othe	r Regulato	O O O	O O	Loca	fixing e and IE I Auth	dates BR) a orities	for gro	o o	Work rethe so	tion / oth- elated wi ope of Si

## SCOPE OF SUPPLY OF WHRB FOR COMMON ITEMS

31	m No.	Description	Q'ty	Total weight in tons	MON ITEMS THERMAX LTD. N					LWA:	Rem		
-				in tons	BD	DD	SP	ER	BD	I VD	SP	TER	
e Vie	55							1	-	1	-	1	
C1		PRESSURE DOSING	SYST	EM <del>*</del>				100			1		
	C1.1	Motorized stirrer	1		0					0	0	0	
	C1.2	Dosing pumps	3		0					0	0	0	
	C1.3	Storage tank	1		0					0	0	0	
	C1.4	Carbon steel interconnecting piping	1		0			65.	et l	0	0	0	
Note	s:				32 - Line								
C2	(1 con	DOWN TANK											
	C2.1	Shell & ends	1 lot		0					0	0	0	
	C2.2	Valves & mountings	1 lot		0					0	0	0	
	C2.3	Foundation bolts	1 lot		0					0	0	0	
	C2.4	Level gauge	1 No.		0	100				0	0	0	
	C2.5	Nozzles	1 lot		0					0	0	0	
Vote			1 101		0				-		1 -		
	s: DEAE	RATOR	1100			+							
	DEAE	RATOR Imon for 2 boilers)				+							
	DEAE (1 con	RATOR imon for 2 boilers)	1 no.		0					0	0	0	
	DEAE	RATOR nmon for 2 boilers) Deaerator Storage tank Valves &				+							
	DEAE (1 con C3.1 C3.2 C3.3	RATOR nmon for 2 boilers) Deaerator Storage tank	1 no. 1 no.		0	4				00	0	0 0	
C3	DEAE (1 con C3.1 C3.2 C3.3 C3.4	RATOR Imon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as	1 no. 1 no. 1 iot		000	+				0 0 0	0 0 0	000	
Note	DEAE (1 con C3.1 C3.2 C3.3 C3.4 C3.5 s:	RATOR Imon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as per P & I Diagram Sample cooler	1 no. 1 no. 1 lot		0 0 0	+				0 0 0	0 0 0	0 0 0 0	70
C3	C3.1 C3.2 C3.3 C3.4 C3.5 s:	RATOR Imon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as per P & I Diagram Sample cooler	1 no. 1 no. 1 lot 1 lot 1 No.	M	0 0 0	4				0 0 0	0 0 0	0 0 0 0	7/
Note Note	C3.1 C3.2 C3.3 C3.4 C3.5 s: applicab	RATOR Immon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as per P & I Diagram Sample cooler  RESSURE DOSING	1 no. 1 no. 1 lot 1 lot 1 No.	M	0 0 0 0	4				0 0 0 0	0 0 0	0 0 0 0	70
Note Note	C3.1 C3.2 C3.3 C3.4 C3.5 s: applicab LOW I (1 for -	RATOR Immon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as per P & I Diagram Sample cooler  le PRESSURE DOSING each deaerator) Motorized stirrer	1 no. 1 no. 1 lot 1 lot 1 No.	M	0 0 0 0	4				0 0 0 0	0 0 0	0 0 0 0	70
Note	C3.1 C3.2 C3.3 C3.4 C3.5 s: applicab	RATOR Immon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as per P & I Diagram Sample cooler  RESSURE DOSING	1 no. 1 no. 1 lot 1 lot 1 No. SYSTE	M	0 0 0 0	-				0 0 0 0	0 0 0	0 0 0 0	7/
Note Note	C3.1 C3.2 C3.3 C3.4 C3.5 s: applicab LOW I (1 for e.	RATOR Immon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as per P & I Diagram Sample cooler  RESSURE DOSING each deaerator) Motorized stirrer Dosing pumps	1 no. 1 no. 1 lot 1 lot 1 No. SYSTE 1 no. 2 nos.	M	0 0 0 0	-				0 0 0 0	0 0 0	0 0 0 0	70
Note Note	C3.1 C3.2 C3.3 C3.4 C3.5 s: applicab LOW I (1 for -	RATOR Immon for 2 boilers) Deaerator Storage tank Valves & mountings Instruments as per P & I Diagram Sample cooler  le PRESSURE DOSING each deaerator) Motorized stirrer	1 no. 1 no. 1 lot 1 lot 1 No. SYSTE	M	0 0 0 0					0 0 0 0	0 0 0	0 0 0 0	10

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Purchase Order NSIL to TL

Item No.		Description	Q'ty	Total weight in tons	THERMAX LTD.				NALWA SPONGE				Rem
					BD	DD	SP	ER	BD	VD	SP	ER	
Note Not	es: applicab	le	- 61								- 1		
5	FEED	WATER PUMPS (a. for 2 boilers)											
	C5.1	Centrifugal pumps			0		. '		- 9	0	0	0	10.001110.00
	C5.2	Electric motors			0					0	0	0	
	C5.3	Cabling from LPBS to MCC	- 1						0	0	0	0	
1	C5.4	LPBS	1 - 1				13		0	0	0	0	
1	C5.5	Auto Redirculation valves			0	0	0					0	
										19			

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