

**BHARAT HEAVY ELECTRICALS LIMITED**

[A Government of India Undertaking]

Ramachandrapuram, Hyderabad, 502032, A.P. India  
Phone 040-23184526, 23182322 FAX:040-23021910, 1954**भारत हेवी इलेक्ट्रिकल्स लिमिटेड**

(भारत सरकार का उपक्रम)

रामचन्द्रपुरम, हैदराबाद, 502032 आंध्र प्रदेश, भारत

RFQ NO :

**PURCHASE DEPARTMENT****ENQUIRY****क्रय विभाग**

जांच (ई मेल : tenderbox@bhelhyd.co.in)

SHEET:1  
OF :3HY17001 C  
REV.NO.0Phone 091-40-23184526  
091-40-23182322FAX : 091-40-23021910  
091-40-23021954**PURCHASE DEPARTMENT**

GSTIN:

Enq/Collective No :E9AZS00011

Enq.Dt. : 13.05.2026

No.Of Items :\*

DUE Dt. OF QUOTN. : 20.05.2026

**Office Copy**

Please submit your lowest quotation in sealed cover superscribed with Enquiry No./Collective No.(RFQ No ..... ) and due date subject to our terms and conditions attached ,for the materials mentioned below.Your offer has to reach us onor before due date by 11.00 Hours (IST) and will be opened at 14.00 Hours.(IST).If our Enquiry No./Collective No.(RFQ No ..... ) and tender due date are not super scribed on the tender cover , your offer shall be summarily rejected. Incomplete offers and late offers will not be considered.

SL NO	Purchase Req.no	item no	Material Code, HSN No.	Drg no - Ver , Rev & Spec - Ver , Rev,Spec-Var	Description	Unit	Qty	Delivery Date	Schedule Qty
1	1400262289	10	21750101725-00	21750101725-,00,,,	HP HEATER -7A ASSEMBLY	EA	3.000	29.07.2026	1.000
2	1400262289	30						29.07.2026	1.000
3	1400262289	20						29.07.2026	1.000
4	1400262642	30	21750101736-00	21750101736-,00,,,	HP HEATER-6 ASSLY(RRVUNL-660MW)	EA	3.000	29.07.2026	1.000
5	1400262642	10						29.07.2026	1.000
6	1400262642	20						29.07.2026	1.000
7	1400262643	20	21750101742-00	21750101742-,00,,,	HP HEATER-5 (ADITYA 150MW)	EA	2.000	29.07.2026	1.000
8	1400262643	10						29.07.2026	1.000
9	1400262640	20	21750501296-00	21750501296-,00,,,	HP HEATER -8A ASSEMBLY	EA	2.000	29.07.2026	1.000
10	1400262640	10						29.07.2026	1.000
11	1400262641	10	21750501298-00	21750501298-,00,,,	HP HEATER -9A ASSEMBLY	EA	2.000	29.07.2026	1.000

TEST CERTIFICATE REQD:  
GUARANTEE REQ :  
SAMPLE REQD :  
BID TYPE : TWO PARTFor and on-behalf of  
Bharat Heavy Electricals Limited.SIVA PRASAD J  
MANAGER/ HEF/BHEL RC  
PURAM

**BHARAT HEAVY ELECTRICALS LIMITED**

[A Government of India Undertaking]

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Phone 040-23184526, 23182322 FAX:040-23021910, 1954**भारत हेवी इलेक्ट्रिकल्स लिमिटेड**

(भारत सरकार का उपक्रम)

रामचन्द्रपुरम, हैदराबाद, 502032 आंध्र प्रदेश, भारत

RFQ NO :

**PURCHASE DEPARTMENT****ENQUIRY****क्रय विभाग**

जांच (ई मेल : tenderbox@bhellhyd.co.in)

SHEET:2  
OF :3

HY17001 C REV.NO.0	Phone 091-40-23184526 091-40-23182322	FAX : 091-40-23021910 091-40-23021954	<b>PURCHASE DEPARTMENT</b>			
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GSTIN:	Enq/Collective No :E9AZS00011	Enq.Dt. : 13.05.2026	No.Of Items :*	DUE Dt. OF QUOTN. : 20.05.2026
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SL NO	Purchase Req.no	item no	Material Code, HSN No.	Drg no - Ver , Rev & Spec - Ver , Rev,Spec-Var	Description	Unit	Qty	Delivery Date	Schedule Qty
12	1400262641	20						29.07.2026	1.000
13	1400262285	10	21750501316-00	21750501316-00,01,,	HP HEATER 7A MAIN ASSLY	EA	3.000	29.07.2026	1.000
14	1400262285	30						29.07.2026	1.000
15	1400262285	20						29.07.2026	1.000
16	1400262286	20	21750501318-00	21750501318-00,01,,	HP HEATER 8A MAIN ASSLY	EA	2.000	29.07.2026	1.000
17	1400262286	10						29.07.2026	1.000
18	1400262287	20	21750501320-00	21750501320-00,01,,	HP HEATER 9A MAIN ASSLY	EA	2.000	29.07.2026	1.000
19	1400262287	10						29.07.2026	1.000
20	1400262288	30	21750501322-00	21750501322-00,01,,	DESUPERHEATER 7A MAIN ASSLY	EA	3.000	29.07.2026	1.000
21	1400262288	10						29.07.2026	1.000

TEST CERTIFICATE REQD:  
GUARANTEE REQ :  
SAMPLE REQD :  
BID TYPE : TWO PART

For and on-behalf of  
Bharat Heavy Electricals Limited.

SIVA PRASAD J  
MANAGER/ HEF/BHEL RC  
PURAM



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 रामचन्द्रपुरम, हैदराबाद, 502032 आंध्र प्रदेश, भारत

RFQ NO :

**PURCHASE DEPARTMENT**  
**ENQUIRY**  
**क्रय विभाग**  
 जांच (ई मेल : tenderbox@bhelhyd.co.in)

SHEET:3  
OF :3

HY17001 C REV.NO.0	Phone 091-40-23184526 091-40-23182322	FAX : 091-40-23021910 091-40-23021954	<b>PURCHASE DEPARTMENT</b>			
GSTIN:		Enq/Collective No :E9AZS00011	Enq.Dt : 13.05.2026	No.Of Items :*	DUE Dt. OF QUOTN : 20.05.2026	

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SL NO	Purchase Req.no	item no	Material Code, HSN No.	Drg no - Ver , Rev & Spec - Ver , Rev,Spec-Var	Description	Unit	Qty	Delivery Date	Schedule Qty
22	1400262288	20						29.07.2026	1.000
23	1400262644	20	21750501349-00	21750501349-,00,,,	HP HEATER-6 (ADITYA 150MW)	EA	2.000	29.07.2026	1.000
24	1400262644	10						29.07.2026	1.000

Special Remarks

**CheckList of Quality Interventions:**  
**BHEL reserves the right to enforce any or all of the following checks during execution of the order.**  
**There is no additional cost to the vendor on account of these checks.**

TEST CERTIFICATE REQD: GUARANTEE REQ : SAMPLE REQD : BID TYPE : TWO PART	For and on-behalf of Bharat Heavy Electricals Limited.  SIVA PRASAD J MANAGER/ HEF/BHEL RC PURAM
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**TECHNOLOGICAL PROCESS  
RE-PRINT**

**Production Order**

**Date**

Plant: P006		Equipment No:		102198183	11.11.2025
Type	WBS Element	Customer / Project Name			Part No
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750501316-00	01		21750501316-00	IPH HEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	76,740.000
					Remarks
					MDCC
					Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0001	L	31750501539-00C	17509002						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : BUNDLE FOR HPH 7AB (T/S SUP/BAF MC SPCR)			Reservation :	Item : 0001		Picklist:			
			0015914536						

0002	L	31750501538-00B	17509114						
		30	1.000	EA	0.000	0.000	0.000		ST06
Material Description : SHELL ASSLY (IPH 7A/B (NOZZ MC)			Reservation :	Item : 0002		Picklist:			
			0015914536						

0003	L	HE9791003033	17509148						
HP91003		10.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS			Reservation :	Item : 0003		Picklist:			
			0015914536						

0004	L	HE9711343150	17509149	QC.					
HP51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER IIPH7AB S2 NOZZ			Reservation :	Item : 0004		Picklist:			
			0015914536						

0005	L	HE9791003025	17509150						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)			Reservation :	Item : 0005		Picklist:			
			0015914536						

0006	L	41750101376-00	17509151						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET			Reservation :	Item : 0006		Picklist:			
			0015914536						

0007	L	HE9715674097	17509156						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE			Reservation :	Item : 0007		Picklist:			
			0015914536						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tual Plnr	Pg no	No.of Pgs
	21.04.2026					1	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:				102198183	11.11.2025
Type	WBS Element	Customer / Project Name				Part No	
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE				17509001	
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part		
21750501316-00	01		21750501316-00		HP HEATER 7A MAIN ASSLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	76.740.000		Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0008	L	AA7174006035			17509157					
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : RIVET 4X12-CU FLAT CSK					Reservation : 0015914536	Item : 0008	Picklist:			

0009	L	41750102806-00			17509158					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE HOLDER					Reservation : 0015914536	Item : 0009	Picklist:			

0010	L	31750100182-00			17509163					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR HPH					Reservation : 0015914536	Item : 0010	Picklist:			

0011	L	41750501228-00			17509165					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT (HPH-7 A/B)					Reservation : 0015914536	Item : 0011	Picklist:			

0012	L	41750501004-00			17509176					
		4.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)					Reservation : 0015914536	Item : 0012	Picklist:			

0013	L	31750501544-00A			17509189					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SKIRT ASSLY (HPH 7A/B (NOZZ. MC)					Reservation : 0015914536	Item : 0013	Picklist:			

0014	L	41750501524-00			17509212					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : CHANNEL SUPPORT ASSLY (HPH-7,8,9 A/B)					Reservation : 0015914536	Item : 0014	Picklist:			

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	76,740.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0015	L	31750501563-00A	17509221						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : HEMIHEAD ASSLY HPH 7A/B (NOZZ MC)			Reservation :	Item : 0015		Picklist:			
			0015914536						

0016	L	31750501168-00A	17509247						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)			Reservation :	Item : 0016		Picklist:			
			0015914536						

0017	L	HE9712514412	17509258						ST06
NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : MANWAY GASKET SS(SPIRAL WOUND)			Reservation :	Item : 0017		Picklist:1000732103			
			0015914536						

0018	L	41750501251-00	17509259						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : SHIPPING CAP (FOR HPH T1 & T2)			Reservation :	Item : 0018		Picklist:			
			0015914536						

0019	L	41750501397-01A	17509266						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER ASSEMBLY			Reservation :	Item : 0019		Picklist:			
			0015914536						

0020	L	HE9711343142	17509274	QC,					ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER HPH7AB S1 NOZZ			Reservation :	Item : 0020		Picklist:			
			0015914536						

0021	L	21750501258-01	17509275						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : IDENTIFICATION RING			Reservation :	Item : 0021		Picklist:			
			0015914536						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102198183	11.11.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE	17509001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501316-00	01		21750501316-00
Name Of The Part			
HP HEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			76,740.000
Remarks			MDCC
			Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.
0022	L	HE9791003017	17509277						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS			Reservation :	Item : 0022		Picklist:			
			0015914536						

0023	L	HE9791003068	17509278						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS			Reservation :	Item : 0023		Picklist:			
			0015914536						

0024	L	HY7246772103	17509279						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BLIND CS 4" CL. 300 RAISED FACE			Reservation :	Item : 0024		Picklist:			
			0015914536						

0025	L	HY7142198184	17509280						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M20X120			Reservation :	Item : 0025		Picklist:1000734483			
			0015914536						

0026	L	HY7240363074	17509281						
HY7240363		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 PIPE			Reservation :	Item : 0026		Picklist:			
			0015914536						

0027	L	HE9711343169	17509282	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER 11PI17AB S3 NOZZ			Reservation :	Item : 0027		Picklist:			
			0015914536						

0028	L	41750501525-01	17509283						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : PIPE (FOR CHANNEL TRUNNION)			Reservation :	Item : 0028		Picklist:			
			0015914536						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					4	6



TE CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025
Type	WBS Element	Customer / Project Name			Part No
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St	Nt.Wt.
	1.000	1.000	EA	IS06	76,740.000
Remarks					MDCC
					Yes

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCS	St.	
0029	L	41750501525-02	17509285							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : END PLATE (FOR CHANNEL TRUNNION)				Reservation :	Item : 0029	Picklist:				
				0015914536						

0030	L	HE9711343177	17509287	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HP17AB S11 NOZZ				Reservation :	Item : 0030	Picklist:			
				0015914536					

0040	L	31750100343-00	17509288						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation :	Item : 0031	Picklist:			
				0015914536					

0050	L	TC9754250120	17509999						
TC54250-12		2.000	SET	0.000	0.000	0.000		0.000	ST06
Material Description : SET OF FILTER CARTR. 40 MIC CAP 1920 PM				Reservation :	Item : 0032	Picklist:1000737651			
				0015914536					

#### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-1032283700-17509:

PWHT Chart shall be approved by QC & CIB.

Support DC & DSH shrouds suitably to avoid deformation

S.R Temperature - 600 - 650°C

Rate of heating from 300°C- 55°C/Hour(Heating/Cooling-530 mm)

Soaking Time ( minimum ) - 80 Minutes(Soaking=32 mm)

Rate of cooling upto 400°C- 55°C / Hour

Further cooling in still air

REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6

**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No:

102198183

11.11.2025

Type

Work Order / PGMA

Customer

Part No

P-1032283700-17509/  
17509

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17509001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501316-00

01

21750501316-00

HP HEATER 7A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

76.740.000

**Operation Details**

Opr No

W.C.

Plant

Ch. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

**Sub Operation Text**

placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

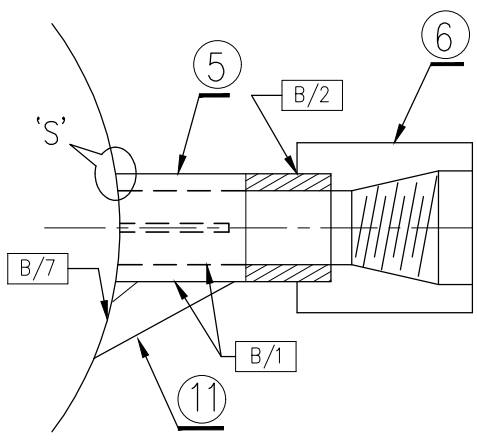
Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

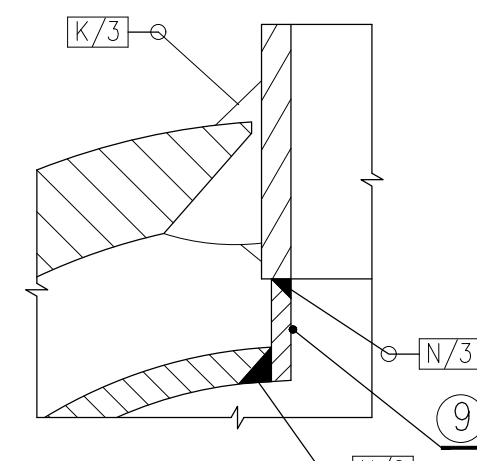
Chkd. By	Dt	ECR/ Rev No	Dt	Pro.Plnr	Rate Flxr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6

INVENTORY NO. SIGN. AND DATE REF. DRG. NO. THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

DRG. NO. 3-175-05-01544

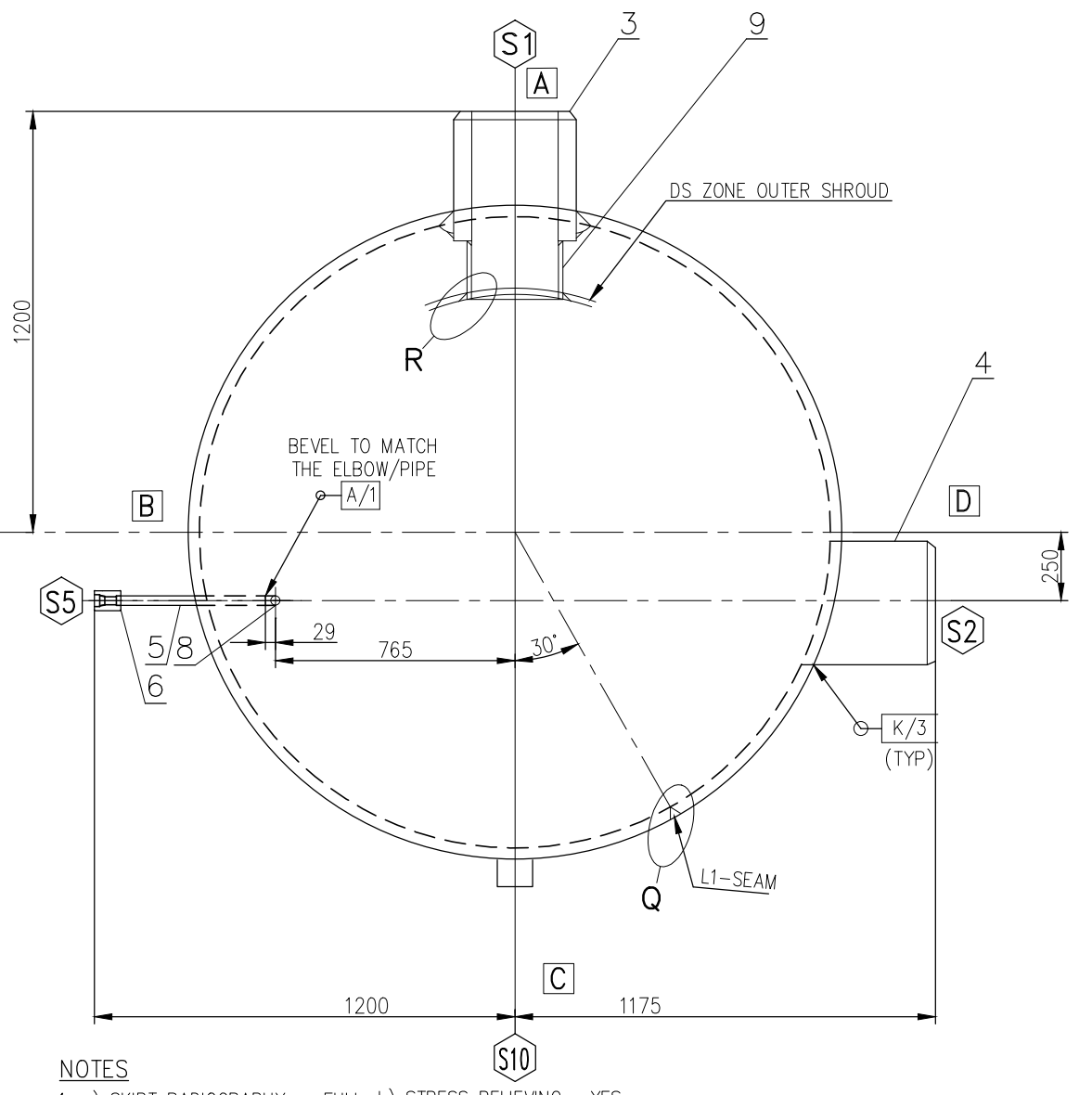
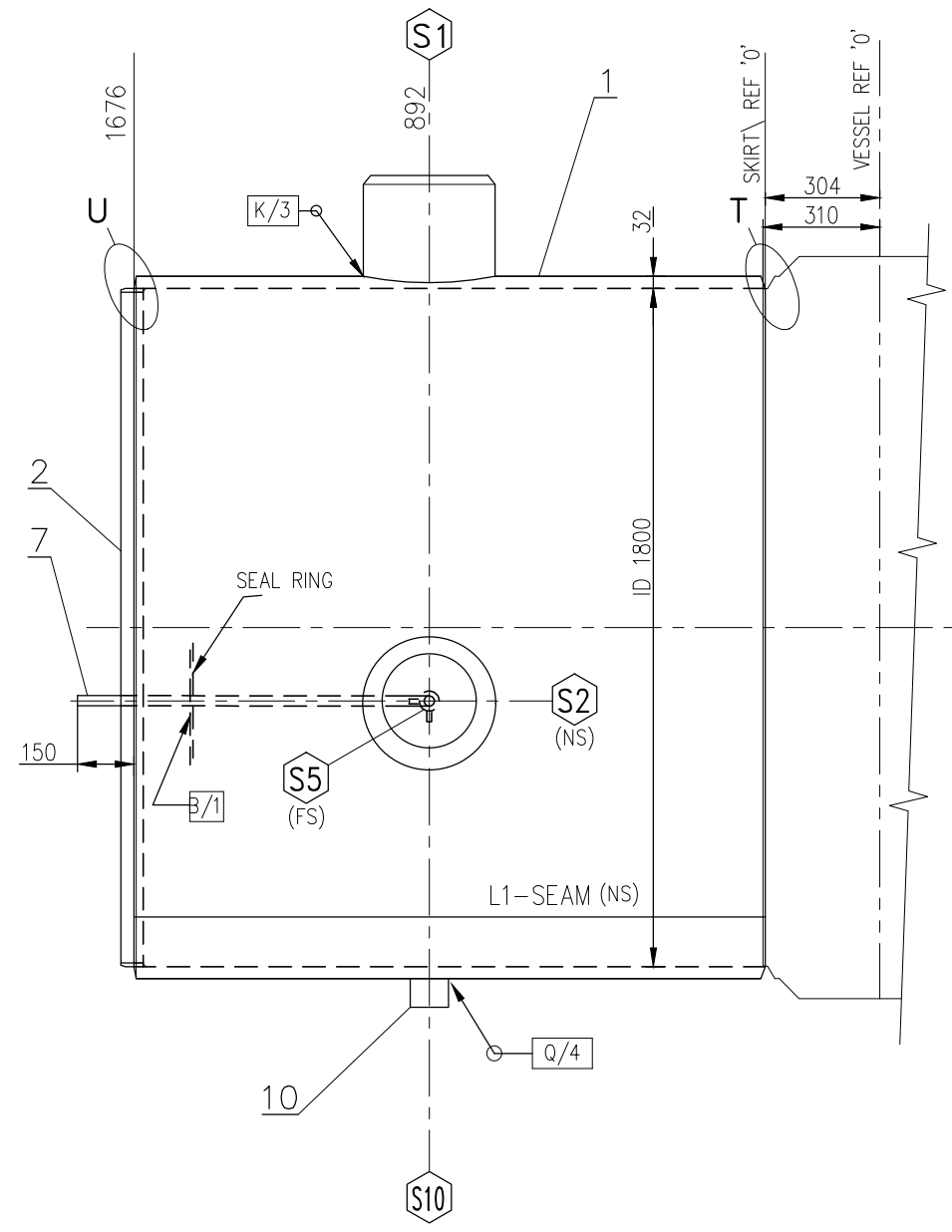


DETAIL - P



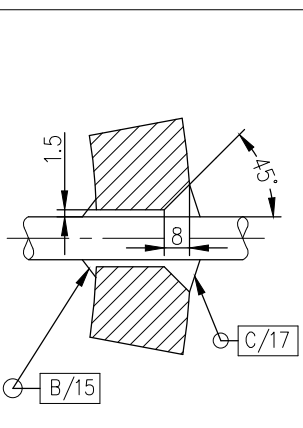
DETAIL - R

(ALSO REFER DS ZONE DETAILS DRG.)  
(GRIND WELDS & SHARP CORNERS)

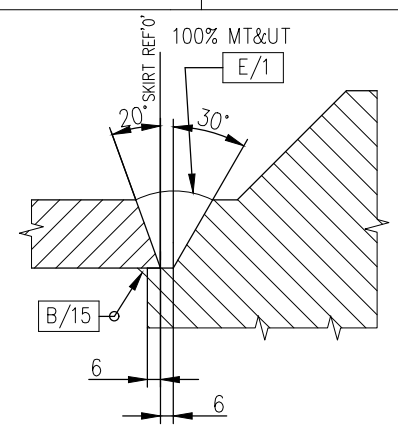


NOTES

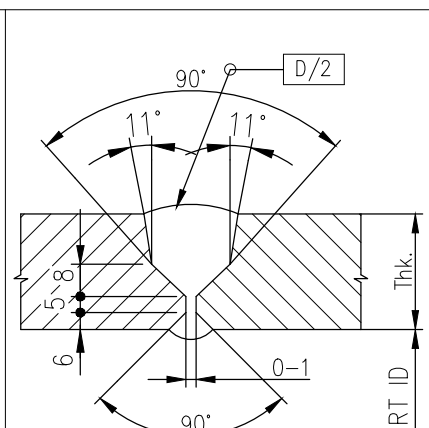
1. a) SKIRT RADIOGRAPHY : FULL b) STRESS RELIEVING : YES
2. DEVELOPED LENGTH OF SKIRT SEGMENT = 5756 MM.
3. WELD SKIRT TO TUBE SHEET PRIOR TO POST WELD HEAT TREATMENT OF TUBE SHEET.
4. FOR WELD SYMBOLS & PROCEDURES SEE DRG NO 3-17501-00544
5. FOR UNSPECIFIED TOLERANCES REF PROD STD HE 7 1036
6. TOLERANCES:- a). OVALITY : 0.5 % ON ID (1800 ± 9.00) b) ON ID CIRCUMFERENCE:  $\begin{matrix} +0.25\% \\ -0.00\% \end{matrix}$  (5655  $\begin{matrix} +15.00 \\ -0.00 \end{matrix}$ )
7. ABOVE TOLERANCES ARE SUBJECT TO SMOOTH PASSAGE OF BAFFLE PULL THROUGH. ANY MISALIGNMENT/MISMATCH/OFFSET SHALL BE SMOOTHLY COVERED BY GRINDING/WELDING, ENSURING MINIMUM THICKNESS MENTIONED IN THE SHELL DRAWING.



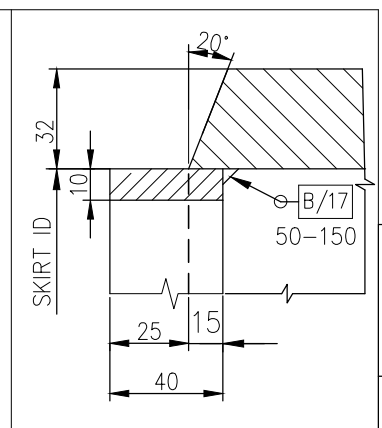
DETAIL - S



DETAIL - T



DETAIL - Q



DETAIL - U

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT **800 MW**

	BHARAT HEAVY ELECTRICALS LTD.		DRN.	NAME	SIGN.	DATE	NO. OF VAR.
	HYDERABAD		CHD.	V.C.C.SAGAR	V.C.C.S	11.03.24	
			APPD.	AK SAHOO	A.K.S	11.03.24	
				KISHORE KUMAR	K.K.K	11.03.24	

REV.	DATE	ALTERED	CHD	APPD	REV.	DATE	ALTERED	CHD	APPD	REV.	DATE	ALTERED	CHD	APPD

DEPT. HEE	GRADE OF TOL.DIM. C/M/F		SCALE NTS	WEIGHT (KG)	REF. TO ASSY DRG.	ITEM NO.	NO. OF ITEMS
CODE 405				NA	NA	NA	NA

TITLE	CARD CODE	DRAWING NO.	REV.
SKIRT ASSEMBLY (FOR HPH-7A/B)		3-175-05-01544	00



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025
Type	WBS Element	Customer / Project Name			Part No
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	76.740.000
Remarks					MDCC
					Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.
0001	L	31750501539-00C	17509002						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : BUNDLE FOR HPH 7AB (1/S SUP/BAF MC SPCR)			Reservation :	Item : 0001	Picklist:				
			0015914536						

0002	L	31750501538-00B	17509114						ST06
		30	1.000	EA	0.000	0.000	0.000	0.000	
Material Description : SHELL ASSLY HPH 7A/B (NOZZ MC)			Reservation :	Item : 0002	Picklist:				
			0015914536						

0003	L	HE9791003033	17509148						ST06
IE91003		10.000	EA	0.000	0.000	0.000		0.000	
Material Description : 3/4" BAR PLUG CS			Reservation :	Item : 0003	Picklist:				
			0015914536						

0004	L	HE9711343150	17509149	QC.					ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER HPH7AB S2 NOZZ			Reservation :	Item : 0004	Picklist:				
			0015914536						

0005	L	HE9791003025	17509150						ST06
HE91003		7.000	EA	0.000	0.000	0.000		0.000	
Material Description : 1/2" BAR PLUG CS (SA105)			Reservation :	Item : 0005	Picklist:				
			0015914536						

0006	L	41750101376-00	17509151						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : LIQ.LVL PLATE BRACKET			Reservation :	Item : 0006	Picklist:				
			0015914536						

0007	L	HE9715674097	17509156						ST06
NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : LIQUID LEVEL NAME PLATE			Reservation :	Item : 0007	Picklist:				
			0015914536						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	76,740.000		Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Mat.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0008	L	AA7174006035	17509157						
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : RIVET 4X12-CU FLAT CSK			Reservation :	Item : 0008		Picklist:			
			0015914536						

0009	L	41750102806-00	17509158						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER			Reservation :	Item : 0009		Picklist:			
			0015914536						

0010	L	31750100182-00	17509163						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH			Reservation :	Item : 0010		Picklist:			
			0015914536						

0011	L	41750501228-00	17509165						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT (HPH-7 A/B)			Reservation :	Item : 0011		Picklist:			
			0015914536						

0012	L	41750501004-00	17509176						
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSLY. (Dia 460. 100 Thk.)			Reservation :	Item : 0012		Picklist:			
			0015914536						

0013	L	31750501544-00A	17509189						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY HPH 7A/B (NOZZ MC)			Reservation :	Item : 0013		Picklist:			
			0015914536						

0014	L	41750501524-00	17509212						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY (HPH-7,8,9 A/B)			Reservation :	Item : 0014		Picklist:			
			0015914536						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs.
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025
Type	WBS Element	Customer / Project Name			Part No
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St	Nt.Wt.
	1.000	1.000	EA	IS06	76,740.000
Remarks					MDCC
					Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	31750501563-00A	17509221							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : HEMIHEAD ASSLY JIP11 7A/B (NOZZ MC)				Reservation : 0015914536		Item : 0015		Picklist:		

0016	L	31750501168-00A	17509247						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation : 0015914536		Item : 0016		Picklist:	

0017	L	JIE9712514412	17509258						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation : 0015914536		Item : 0017		Picklist:1000732103	

0018	L	41750501251-00	17509259						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP (FOR HPII T1 & T2)				Reservation : 0015914536		Item : 0018		Picklist:	

0019	L	41750501397-01A	17509266						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY				Reservation : 0015914536		Item : 0019		Picklist:	

0020	L	JIE9711343142	17509274	QC					
JIE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPII7AB S1 NOZZ				Reservation : 0015914536		Item : 0020		Picklist:	

0021	L	21750501258-01	17509275						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation : 0015914536		Item : 0021		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:			102198183	11.11.2025
Type	WBS Element	Customer / Project Name			Part No	
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001	
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part		
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	MDCC
	1.000	1.000	EA	IS06	76,740.000	Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0022	L	HE9791003017	17509277						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation :	Item : 0022	Picklist:			
				0015914536					

0023	L	HE9791003068	17509278						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation :	Item : 0023	Picklist:			
				0015914536					

0024	L	HY7246772103	17509279						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BLIND CS 4" CL 300 RAISED FACE				Reservation :	Item : 0024	Picklist:			
				0015914536					

0025	L	HY7142198184	17509280						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M20X120				Reservation :	Item : 0025	Picklist:1000734483			
				0015914536					

0026	L	HY7240363074	17509281						
HY7240363		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 PTFE				Reservation :	Item : 0026	Picklist:			
				0015914536					

0027	L	HE9711343169	17509282	OC					
HE91113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S3 NOZZ.				Reservation :	Item : 0027	Picklist:			
				0015914536					

0028	L	41750501525-01	17509283						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : PIPE (FOR CHANNEL TRUNNION)				Reservation :	Item : 0028	Picklist:			
				0015914536					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plar	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	76,740.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0029	L	41750501525-02	17509285						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : END PLATE (FOR CHANNEL TRUNNION)				Reservation : 0015914536		Item : 0029		Picklist:	

0030	L	HE9711343177	17509287	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S11 NOZZ				Reservation : 0015914536		Item : 0030		Picklist:	

0040	L	31750100343-00	17509288						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation : 0015914536		Item : 0031		Picklist:	

0050	L	TC9754250120	17509999						
TC54250-12		2.000	SET	0.000	0.000	0.000		0.000	ST06
Material Description : SET OF FILTER CARTR. 40 MIC CAP 1920 .PM				Reservation : 0015914536		Item : 0032		Picklist:1000737651	

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-1032283700-17509;  
 S.R Temperature --- 600 - 650°C  
 Rate of heating from 300°C --- 87°C / Hour(60 mm)  
 Soaking Time (Minimum) --- 80 Minutes(32 mm)  
 Rate of cooling upto 400°C --- 111°C / Hour

Further cooling in still air.  
 REFER PLANT STANDARD HY0640763 FOR S.K.

NOTE: Thermocouples are to be placed close to weld joints.  
 If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

Chk'd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plar	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6

**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No:

102198183

11.11.2025

Type

Work Order / PGMA

Customer

Part No

P-1032283700-17509/  
17509

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17509001

Drawing No.-Var	E.Rev.	T.Rev.	Material No.	Name Of The Part		
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSY.Y		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	76.740.000	

**Operation Details**

Opr No	W.C.	Plant	Cd. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT Nu.			PRT Description				

**Sub Operation Text**

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.  
Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.  
Send the assembly to 06-shop, BHEL Hyd.

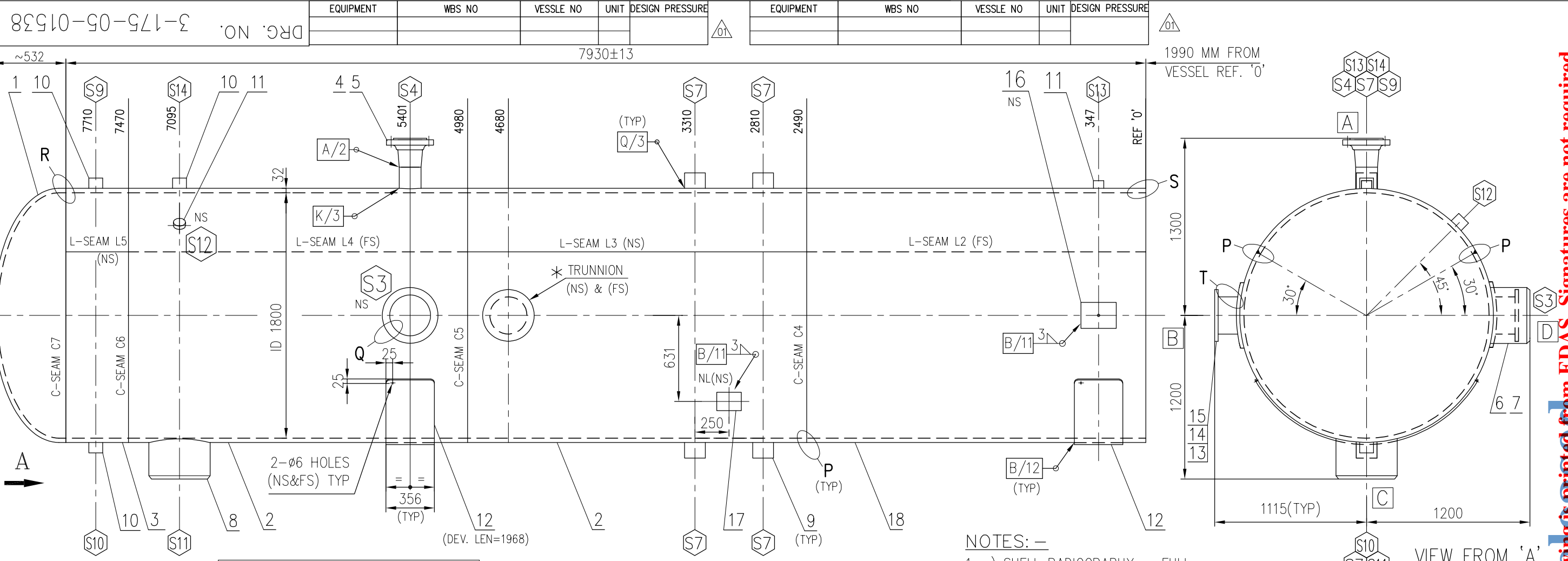
SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Vixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6

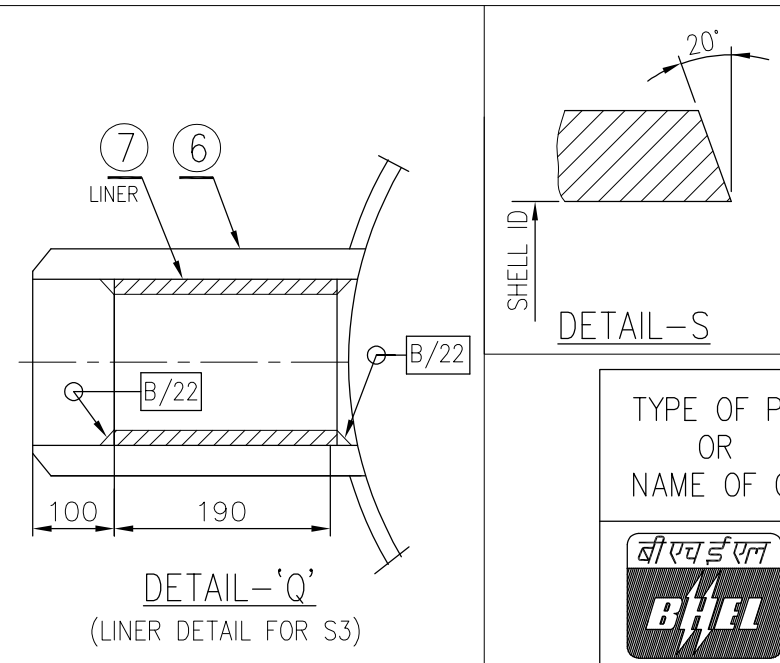
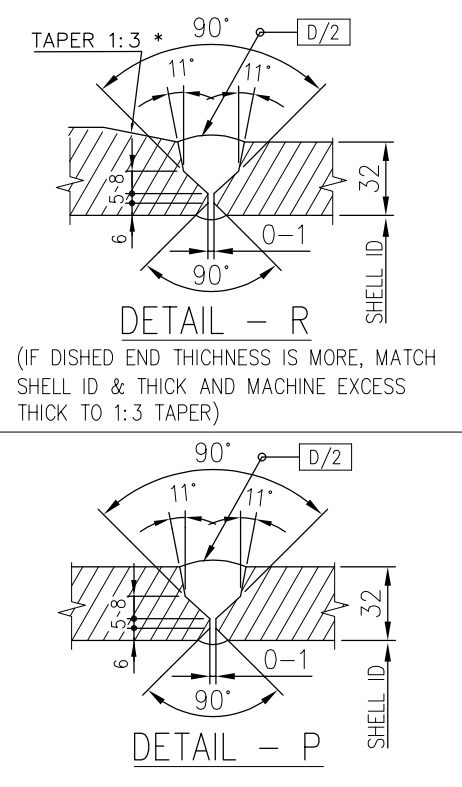
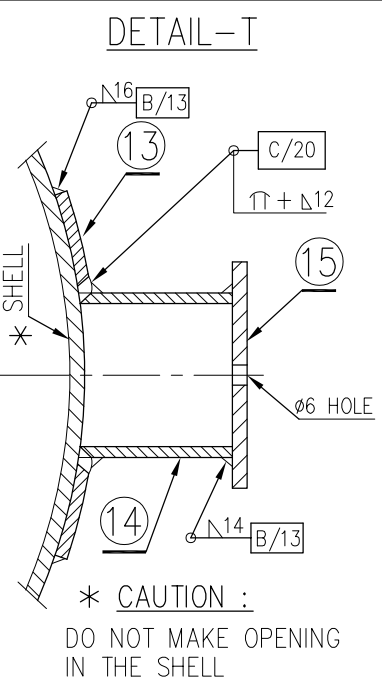
INVENTORY NO. SIGN. AND DATE REF. DRG. NO. THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)



- NOTES: -
- a) SHELL RADIOGRAPHY : FULL  
b) STRESS RELIEVING : YES
  - DEVELOPED LENGTH OF POS No 2 & 3 = 5756 MM.
  - FOR WELD SYMBOLS & PROCEDURES SEE DRG NO 3-17501-00544
  - FOR UNSPECIFIED TOLERANCES REF PROD STD HE 7 1036
  - TOLERANCES:- a). OVALITY : 0.5 % ON ID (1800 ± 9.00)  
b) ON ID CIRCUMFERENCE:  $\begin{matrix} +0.25\% \\ -0.00\% \end{matrix}$  (5655  $\begin{matrix} +15.00 \\ -0.00 \end{matrix}$ )
  - INSPECTION BY IBR.
  - DURING THE FIT UP OF DISHED END TO SHELL A REFERENCE LINE WOULD BE MARKED ON THE SHELL, AT A DISTANCE OF 100MM, FROM THE JOINT WHICH WOULD THEN BE TRANSFERRED BACK, AFTER WELDING TO IDENTIFY WELD LINE.
  - ABOVE TOLERANCES ARE SUBJECT TO SMOOTH PASSAGE OF BAFFLE PULL THROUGH. ANY MISALIGNMENT/MISMATCH/OFFSET SHALL BE SMOOTHLY COVERED BY GRINDING/WELDING, ENSURING MINIMUM THICKNESS MENTIONED IN THE SHELL DRAWING.



TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		800 MW			
BHARAT HEAVY ELECTRICALS LTD. HYDERABAD		DRN.	NAME	SIGN.	DATE
		CHD.	V.C.C.SAGAR	V.C.C.S	11.03.24
		APPD.	AK SAHOO	A.K.S	11.03.24
			K KISHORE KUMAR	K.K.K	11.03.24
DEPT. HEE	GRADE OF TOL.DIM. C/M/F	SCALE	WEIGHT (KG)	REF. TO ASSY DRG.	ITEM NO.
CODE 405		NTS	NA	NA	NA
TITLE			CARD CODE	DRAWING NO.	REV.
SHELL ASSEMBLY (FOR HPH-7A/B)				3-175-05-01538	01
SHEET No. 01				NO OF SHEETS 01	

REV.	DATE	ALTERED	CHD	APPD	REV.	DATE	ALTERED	CHD	APPD
01	14.10.24	V.C.C.S	A.K.S	K.K.K					

EQUIPMENT DETAILS TABLE DATA DELETED

02-Nov-2024 08:50:03 RESTRICTED USE This Drawing is printed from EDAS. Signatures are not required



**TECHNOLOGICAL PROCESS  
RE-PRINT**

**Production Order**

**Date**

Plant: P006		Equipment No:		102198183	11.11.2025
<b>Type</b>	<b>WBS Element</b>	<b>Customer / Project Name</b>			<b>Part No</b>
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509(01)
<b>Drawing No.-Var</b>	<b>E.Rev.</b>	<b>T.Rev</b>	<b>Material No.</b>	<b>Name Of The Part</b>	
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY	
<b>Pos.No</b>	<b>BOM Qty</b>	<b>Ord Qty</b>	<b>MU</b>	<b>St.</b>	<b>Nt.Wt.</b>
	1.000	1.000	EA	IS06	76.740.000
					<b>Remarks</b>
					<b>MDCC</b>
					Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750501539-00C	17509002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE FOR HPH 7AB (1/S SUP/BAF MC SPCR)				Reservation : 0015914536		Item : 0001		Picklist:		

0002	L	31750501538-00B	17509114						
		30	1.000	EA	0.000	0.000	0.000	0.000	ST06
Material Description : SHELL ASSLY HPH 7A/B (NOZZ MC)				Reservation : 0015914536		Item : 0002		Picklist:	

0003	L	HE9791003033	17509148						
HE91003		10.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0015914536		Item : 0003		Picklist:	

0004	L	HE9711343150	17509149	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S2 NOZZ				Reservation : 0015914536		Item : 0004		Picklist:	

0005	L	HE9791003025	17509150						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0015914536		Item : 0005		Picklist:	

0006	L	41750101376-00	17509151						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET				Reservation : 0015914536		Item : 0006		Picklist:	

0007	L	HE9715674097	17509156						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE				Reservation : 0015914536		Item : 0007		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:			102198183	11.11.2025
Type	WBS Element		Customer / Project Name			Part No
	P-1032283700-17509		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501316-00	01		21750501316-00		HP HEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	76.740.000	
						MDCC
						Yes

### BOM Details

Pos.No	IC	Material Code		P.No	Remarks					
Mat.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0008	L	AA7174006035		EA	17509157					
AA7174006			6.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : RIVET 4X12-CU FLAT CSK				Reservation : 0015914536		Item : 0008		Picklist:		

0009	L	41750102806-00		EA	17509158					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation : 0015914536		Item : 0009		Picklist:		

0010	L	31750100182-00		EA	17509163					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR IPII				Reservation : 0015914536		Item : 0010		Picklist:		

0011	L	41750501228-00		EA	17509165					
			2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT (IPII-7 A/B)				Reservation : 0015914536		Item : 0011		Picklist:		

0012	L	41750501004-00		EA	17509176					
			4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation : 0015914536		Item : 0012		Picklist:		

0013	L	31750501544-00A		EA	17509189					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY HPH 7A/B (NOZZ MC)				Reservation : 0015914536		Item : 0013		Picklist:		

0014	L	41750501524-00		EA	17509212					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY (IPII-7.8.9 A/B)				Reservation : 0015914536		Item : 0014		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	76,740.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Mat.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.
0015	L	31750501563-00A	17509221						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : HEMIHEAD ASSLY HPH 7A/B (NOZZ MC)				Reservation : 0015914536		Item : 0015		Picklist:	

0016	L	31750501168-00A	17509247						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation : 0015914536		Item : 0016		Picklist:	

0017	L	HE9712514412	17509258						ST06
NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation : 0015914536		Item : 0017		Picklist:1000732103	

0018	L	41750501251-00	17509259						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : SHIPPING CAP (FOR HPH T1 & T2)				Reservation : 0015914536		Item : 0018		Picklist:	

0019	L	41750501397-01A	17509266						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER ASSEMBLY				Reservation : 0015914536		Item : 0019		Picklist:	

0020	L	HE9711343142	17509274	QC					ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER HPH7AB SI NOZZ				Reservation : 0015914536		Item : 0020		Picklist:	

0021	L	21750501258-01	17509275						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : IDENTIFICATION RING				Reservation : 0015914536		Item : 0021		Picklist:	

Clkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025
Type		WBS Element		Customer / Project Name	
		P-1032283700-17509		ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var		E.Rev.	T.Rev	Material No.	
21750501316-00		01		21750501316-00	
Name Of The Part		HP HEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	76,740.000
Remarks					MDCC
					Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0022	L	HE9791003017			17509277					
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/8" BAR PLUG CS					Reservation :	Item : 0022	Picklist:			
					0015914536					

0023	L	HE9791003068			17509278					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1 1/2" BAR PLUG CS					Reservation :	Item : 0023	Picklist:			
					0015914536					

0024	L	HY7246772103			17509279					
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : FLANGE BLIND CS 4" CL. 300 RAISED FACE					Reservation :	Item : 0024	Picklist:			
					0015914536					

0025	L	HY7142198184			17509280					
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M20X120					Reservation :	Item : 0025	Picklist:1000734483			
					0015914536					

0026	L	HY7240363074			17509281					
HY7240363		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : NAB M.S.W. GASKET SIZE 4" #300 PTFE					Reservation :	Item : 0026	Picklist:			
					0015914536					

0027	L	HE9711343169			17509282	QC				
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPH7AB S3 NOZZ					Reservation :	Item : 0027	Picklist:			
					0015914536					

0028	L	41750501525-01			17509283					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : PIPE (FOR CHANNEL TRUNNION)					Reservation :	Item : 0028	Picklist:			
					0015914536					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102198183	11.11.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032283700-17509	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17509001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501316-00	01		21750501316-00	HP HEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	76.740.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0029	L	41750501525-02	17509285						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : END PLATE (FOR CHANNEL TRUNNION)				Reservation : 0015914536		Item : 0029		Picklist:	

0030	L	HE9711343177	17509287	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB SH NOZZ				Reservation : 0015914536		Item : 0030		Picklist:	

0040	L	31750100343-00	17509288						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation : 0015914536		Item : 0031		Picklist:	

0050	L	TC9754250120	17509999						
TC54250-12		2.000	SET	0.000	0.000	0.000		0.000	ST06
Material Description : SET OF FILTER CARTR. 40 MIC CAP 1920 LPM				Reservation : 0015914536		Item : 0032		Picklist:1000737651	

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0013	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Hemi head Assly PWHT P-1032283700-17509:

S.R Temperature - 600°C to 650°C

Rate of Heating from 300°C- 55°C/Hour.(Heating/Cooling-210)

Soaking Time ( Minimum ) - 195 Minutes.(Soaking=168 mm )

Rate of Cooling upto 400°C - 55°C/Hour.

Further cooling in still air

NOTE : Thermocouples are to be placed close to weld joints

REFER PLANT STANDARD NO. HY 0640763 FOR S.R

If single hemi head is loaded then two thermocouples shall be placed on the hemi head, one at hemi head to manway nozzle weld joint and one at T1/T2 nozzle to hemi head joint. If multiple jobs are loaded, then all

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6



**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No:

102198183

11.11.2025

Type

Work Order / PGMA

Customer

Part No

P-1032283700-17509/  
17509

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17509001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501316-00

01

21750501316-00

HP HEATER 7A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

76,740.000

**Operation Details**

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

**Sub Operation Text**

the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

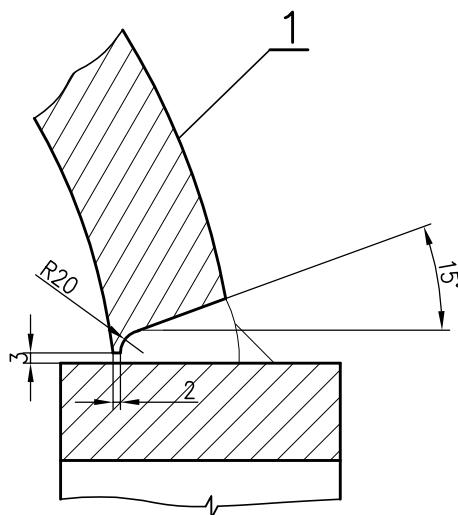
Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

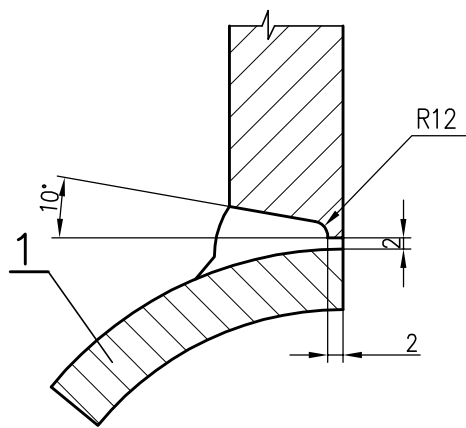
Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6

DRG. NO. 3-175-05-01563

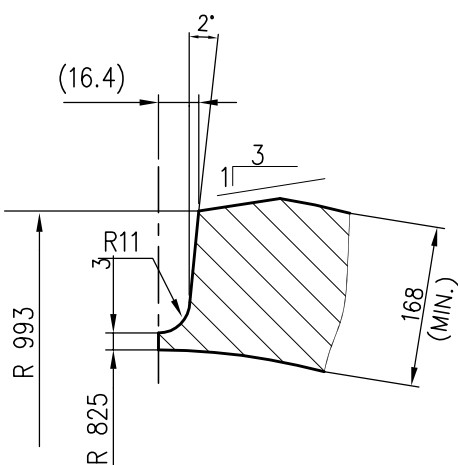
COMPUTER FILE NAME THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY  
 SIGN. AND DATE REF. DRG. NO.  
 INVENTORY NO



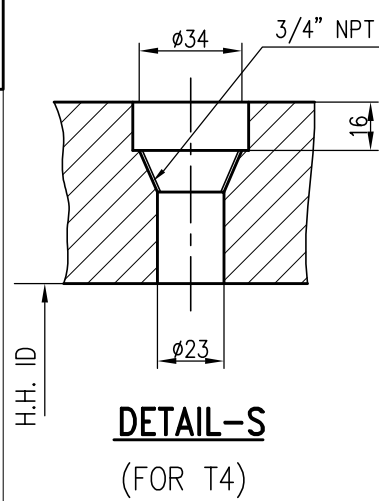
DETAIL-P (FOR MAN WAY)



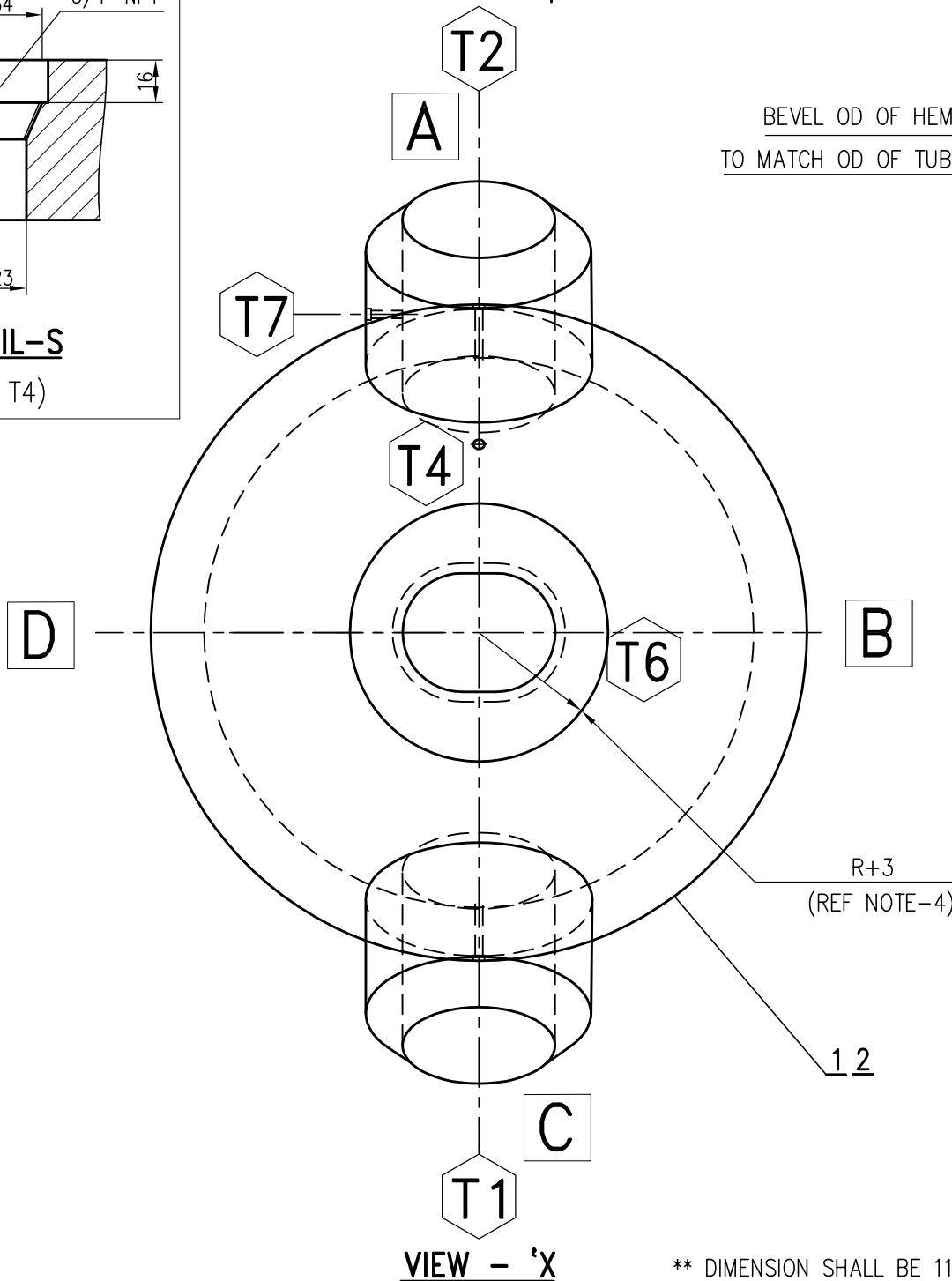
DETAIL-Q (FOR T1/T2)



DETAIL-R (FOR HEMI HEAD)

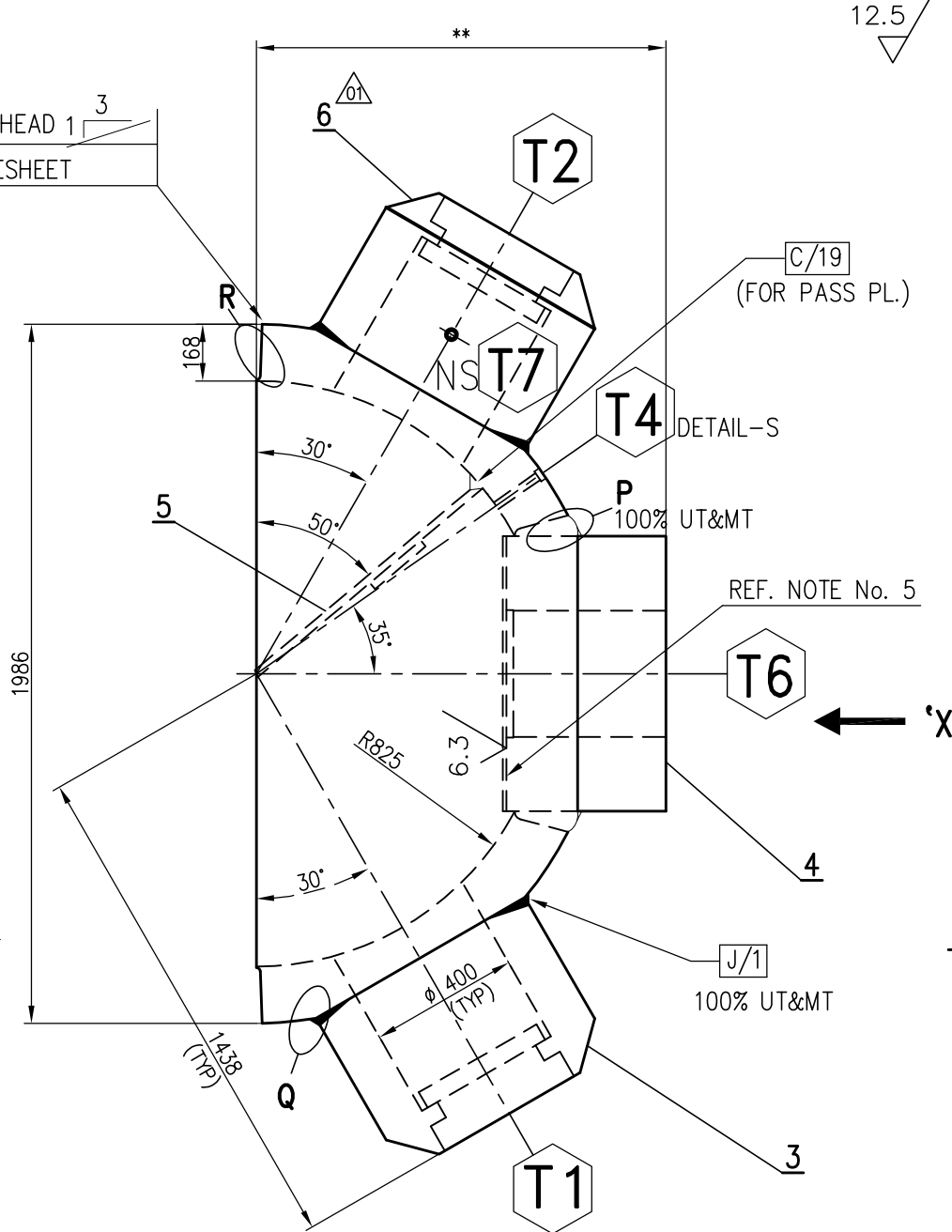


DETAIL-S (FOR T4)



VIEW - 'X'

BEVEL OD OF HEMIHEAD 1/3 TO MATCH OD OF TUBESHEET



NOTES:-

1. FOR PASS PARTITION DETAILS REFER DRG. No. 3-175-05-01124.
2. FOR WELD SYMBOLS & PROCEDURES REFER DRG. No. 3-175-01-00544.
3. MT REQUIRED ON WELD EDGE PREPARATION FOR TUBE SHEET JOINT.
4. WHERE R IS RADIUS IN ROUND OF MANWAY, REF. DRG. No. 3-175-05-01168.
5. PROTECT MANWAY GASKET SEATING SURFACE SUITABLY AS SHOWN. PROTECTION PLATE SHALL BE REMOVED JUST PRIOR TO ASSLY OF GASKET.

\*\* DIMENSION SHALL BE 1155 MM IN MACHINED CONDITION(Detail-R) WITH MANWAY NOZZLE LENGTH OF 450 MM.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		800 MW			
BHARAT HEAVY ELECTRICALS LTD. HYDERABAD	DRN.	V.C.C.SAGAR	V.C.C.S	09.10.24	NO.OF VAR.
	CHD.	AK SAHOO	AKS	14.10.24	
	APPD.	KISHORE KUMAR	KK	14.10.24	
DEPT. HEE	UNTOL. DIMS. GR. 405	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM NO.
	405	1 : 20	NA	NA	NA
TITLE		DRAWING NO.		REV.	
HEMI HEAD ASSLY. (FOR HPHs)		3-175-05-01563		01	
		SHT. No. 01		NO. OF SHT. 01	



**TECHNOLOGICAL PROCESS  
RE-PRINT**

**Production Order**

**Date**

Plant: P006		Equipment No: IIEII2949		102199593		11.11.2025	
<b>Type</b>		<b>WBS Element</b>		<b>Customer / Project Name</b>			<b>Part No</b>
		P-1032283900-17511		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17511001
<b>Drawing No.-Var</b>		<b>E.Rev.</b>	<b>T.Rev</b>	<b>Material No.</b>		<b>Name Of The Part</b>	
21750501318-00		01		21750501318-00		HP HEATER 8A MAIN ASSLY	
<b>Pos.No</b>	<b>BOM Qty</b>	<b>Ord Qty</b>	<b>MU</b>	<b>St.</b>	<b>Nt.Wt.</b>	<b>Remarks</b>	<b>MDCC</b>
	1.000	1.000	EA	IS06	107.740.000		Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750501546-TBS			17511002					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE ASSLY FOR HPH 8A/B T/S BAF SPA MC					Reservation : 0015917472	Item : 0001		Picklist:		

0002	L	31750501547-00B			17511113					
		30	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : SHELL ASSLY HPH 8A/B (NOZZ MC)					Reservation : 0015917472	Item : 0002		Picklist:		

0003	L	HE9791003033			17511148					
HE91003		10.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/4" BAR PLUG CS					Reservation : 0015917472	Item : 0003		Picklist:		

0004	L	HE9711343193			17511149					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPH 8A/B S2 NOZZ					Reservation : 0015917472	Item : 0004		Picklist:		

0005	L	HE9791003025			17511150					
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1/2" BAR PLUG CS (SA105)					Reservation : 0015917472	Item : 0005		Picklist:		

0006	L	41750101376-00			17511151					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : LIQ.LVL PLATE BRACKET					Reservation : 0015917472	Item : 0006		Picklist:		

0007	L	HE9715674097			17511156					
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : LIQUID LEVEL NAME PLATE					Reservation : 0015917472	Item : 0007		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No: HEH2949			102199593	11.11.2025
Type	WBS Element		Customer / Project Name			Part No
	P-1032283900-17511		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17511001
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501318-00	01		21750501318-00		HP HEATER 8A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	107.740.000	
						MDCC
						Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.		
0008	L	AA7174006035			17511157						
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : RIVET 4X12-CU FLAT CSK					Reservation :	Item : 0008		Picklist:			
					0015917472						

0009	L	41750102806-00			17511158						
		1.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : NAME PLATE HOLDER					Reservation :	Item : 0009		Picklist:			
					0015917472						

0010	L	31750100182-00			17511163						
		1.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : NAME PLATE FOR HPH					Reservation :	Item : 0010		Picklist:			
					0015917472						

0011	L	41750501239-00			17511165						
		2.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : SHELL ROLLER SUPPORT (HPH-8 A/B)					Reservation :	Item : 0011		Picklist:			
					0015917472						

0012	L	41750501004-00			17511176						
		4.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : ROLLER ASSLY (Dia 460, 100 Thk.)					Reservation :	Item : 0012		Picklist:			
					0015917472						

0013	L	31750501552-00A			17511189						
		1.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : SKIRT ASSLY HPH 8A/B (NOZZ MC)					Reservation :	Item : 0013		Picklist:			
					0015917472						

0014	L	41750501524-00			17511212						
		1.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : CHANNEL SUPPORT ASSLY (HPH-7,8,9 A/B)					Reservation :	Item : 0014		Picklist:			
					0015917472						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

**Production Order**

**Date**

Plant: P006		Equipment No: HEH2949		102199593		11.11.2025	
<b>Type</b>		<b>WBS Element</b>		<b>Customer / Project Name</b>			<b>Part No</b>
		P-1032283900-17511		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17511001
<b>Drawing No.-Var</b>		<b>E.Rev.</b>	<b>T.Rev</b>	<b>Material No.</b>		<b>Name Of The Part</b>	
21750501318-00		01		21750501318-00		HP HEATER 8A MAIN ASSLY	
<b>Pos.No</b>	<b>BOM Qty</b>	<b>Ord Qty</b>	<b>MU</b>	<b>St.</b>	<b>Nt.Wt.</b>	<b>Remarks</b>	<b>MDCC</b>
	1.000	1.000	EA	IS06	107,740.000		Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	31750501563-00A			17511221						
			1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : HEMIHEAD ASSLY HPH 7A/B (NOZZ MC)					Reservation : 0015917472	Item : 0015		Picklist:			

0016	L	31750501168-00A			17511247						
			1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)					Reservation : 0015917472	Item : 0016		Picklist:			

0017	L	HE9712514412			17511258						
NA			1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : MANWAY GASKET SS(SPIRAL WOUND)					Reservation : 0015917472	Item : 0017		Picklist:			

0018	L	41750501251-00			17511259						
			2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHIPPING CAP (FOR HPH T1 & T2)					Reservation : 0015917472	Item : 0018		Picklist:			

0019	L	41750501397-01A			17511266						
			2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : TEST COVER ASSEMBLY					Reservation : 0015917472	Item : 0019		Picklist:			

0020	L	HE9711343185			17511274						
HE51113-NA			1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPH8AB S1 NOZZ					Reservation : 0015917472	Item : 0020		Picklist:			

0021	L	21750501318-01			17511275						
			2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : HP HEATER 8A IDENTIFICATION RING					Reservation : 0015917472	Item : 0021		Picklist:			

Chkd. By	Dt.	ECR/ Rev No	DL	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No: HEH2949	102199593	11.11.2025
Type	WBS Element	Customer / Project Name	
	P-1032283900-17511	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var	E.Rev.	T.Rev.	Material No.
21750501318-00	01		21750501318-00
Name Of The Part			Part No
HP HEATER 8A MAIN ASSLY			17511001
Pos.No	BOM Qty	Ord Qty	MU
1.000	1.000	EA	IS06
Remarks			MDCC
			Yes

### BOM Details

Pos.No	IC	Material Code		P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0022	L	HE9791003017		17511277					
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation :	Item : 0022		Picklist:		
				0015917472					

0023	L	HE9791003068		17511278					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation :	Item : 0023		Picklist:		
				0015917472					

0024	L	HY7246761284		17511279					
HY7246761		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : CS BLIND FLANGE 3" # 600 RF				Reservation :	Item : 0024		Picklist:		
				0015917472					

0025	L	HY7142198192		17511280					
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M20X130				Reservation :	Item : 0025		Picklist:1000734483		
				0015917472					

0026	L	HY7240366065		17511281					
HY7240366		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 3"#600 GRPH				Reservation :	Item : 0026		Picklist:		
				0015917472					

0027	L	HE9711343207		17511282					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH8AB S3 NOZZ				Reservation :	Item : 0027		Picklist:		
				0015917472					

0028	L	41750501525-01		17511283					
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : PIPE (FOR CHANNEL TRUNNION)				Reservation :	Item : 0028		Picklist:		
				0015917472					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
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TECHNOLOGICAL PROCESS  
RE-PRINT

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No: HEH2949	102199593	11.11.2025
Type	WBS Element	Customer / Project Name	
	P-1032283900-17511	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501318-00	01		21750501318-00
Name Of The Part			Part No
HP HEATER 8A MAIN ASSLY			17511001
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			107,740.000
Remarks			MDCC
			Yes

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0029	L	41750501525-02	17511285							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : END PLATE (FOR CHANNEL TRUNNION)				Reservation : 0015917472		Item : 0029		Picklist:		

0030	L	HE9711343215	17511287						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH8AB S11 NOZZ				Reservation : 0015917472		Item : 0030		Picklist:	

0040	L	31750100343-00	17511288						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation : 0015917472		Item : 0031		Picklist:	

0050	L	TC9756557109	17511999						
TC56557-10		10.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : FLANGE 8" 150 SORF SS182F316L+IGC				Reservation : 0015917472		Item : 0032		Picklist:1000737616	

#### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-1032283900-17511:

PWHT Chart shall be approved by QC & CIB.

Support DC & DSH shrouds suitably to avoid deformation

S.R Temperature - 650 - 690°C

Rate of heating from 300°C- 55°C/Hour(Heating/Cooling-530 mm)

Soaking Time ( minimum ) - 155 Minutes(Soaking=63 mm)

Rate of cooling upto 400°C- 55°C / Hour

Further cooling in still air

REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be

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**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No: HEH2949

102199593

11.11.2025

Type

Work Order / PGMA

Customer

Part No

P-1032283900-17511/  
17511

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17511001

Drawing No.-Var

E.Rev.

I.Rev.

Material No.

Name Of The Part

21750501318-00

01

21750501318-00

HP HEATER 8A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

1806

107.740.000

**Operation Details**

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

**Sub Operation Text**

placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWIT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



DATE CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No: HEH2949	102199593	11.11.2025
Type	WBS Element	Customer / Project Name	
	P-1032283900-17511	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Part No	17511001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501318-00	01		21750501318-00
Name Of The Part		HP HEATER 8A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	IS06	Nt.Wt.	107.740.000
Remarks	MDCC		
	Yes		

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750501546-TBS	17511002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE ASSLY FOR HPH 8AB T/S BAF SPA MC				Reservation :	Item : 0001	Picklist:				
				0015917472						

0002	L	31750501547-00B	17511113						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSLY HPH 8A/B (NOZZ MC)				Reservation :	Item : 0002	Picklist:			
				0015917472					

0003	L	HE9791003033	17511148						
HE91003		10.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation :	Item : 0003	Picklist:			
				0015917472					

0004	L	HE9711343193	17511149						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH8AB S2 NOZZ				Reservation :	Item : 0004	Picklist:			
				0015917472					

0005	L	HE9791003025	17511150						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation :	Item : 0005	Picklist:			
				0015917472					

0006	L	41750101376-00	17511151						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET				Reservation :	Item : 0006	Picklist:			
				0015917472					

0007	L	HE9715674097	17511156						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE				Reservation :	Item : 0007	Picklist:			
				0015917472					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
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## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No: HEH2949			102199593	11.11.2025
Type	WBS Element		Customer / Project Name			Part No
	P-1032283900-17511		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17511001
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501318-00	01		21750501318-00		HP HEATER 8A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	107.740.000	
						MDCC
						Yes

### BOM Details

Pos.No	IC	Material Code		P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0008	L	AA7174006035		17511157						
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : RIVET 4X12-CU FLAT CSK				Reservation :	Item : 0008		Picklist:			
				0015917472						

0009	L	41750102806-00		17511158						
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE HOLDER				Reservation :	Item : 0009		Picklist:			
				0015917472						

0010	L	31750100182-00		17511163						
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR HPH				Reservation :	Item : 0010		Picklist:			
				0015917472						

0011	L	41750501239-00		17511165						
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT (HPH-8 A/B)				Reservation :	Item : 0011		Picklist:			
				0015917472						

0012	L	41750501004-00		17511176						
		4.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation :	Item : 0012		Picklist:			
				0015917472						

0013	L	31750501552-00A		17511189						
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SKIRT ASSLY 11PH 8A/B (NOZZ MC)				Reservation :	Item : 0013		Picklist:			
				0015917472						

0014	L	41750501524-00		17511212						
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : CHANNEL SUPPORT ASSLY (11PH-7,8,9 A/B)				Reservation :	Item : 0014		Picklist:			
				0015917472						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
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TECHNOLOGICAL PROCESS  
RE-PRINT

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No: HEH2949			102199593		11.11.2025		
Type		WBS Element		Customer / Project Name				Part No	
		P-1032283900-17511		ANUPPUR THERMAL ENERGY (MP) PRIVATE				17511001	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part			
21750501318-00		01		21750501318-00		HP HEATER 8A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks			MDCC
	1.000	1.000	EA	IS06	107,740.000				Yes

#### BOM Details

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	31750501563-00A			17511221						IS06
			1.000	EA	0.000	0.000	0.000		0.000		
Material Description : HEMIHEAD ASSLY HPH 7A/B (NOZZ MC)					Reservation : 0015917472		Item : 0015		Picklist:		
0016	L	31750501168-00A			17511247					IS06	
			1.000	EA	0.000	0.000	0.000		0.000		
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)					Reservation : 0015917472		Item : 0016		Picklist:		
0017	L	HE9712514412			17511258					ST06	
NA			1.000	EA	0.000	0.000	0.000		0.000		
Material Description : MANWAY GASKET SS(SPIRAL WOUND)					Reservation : 0015917472		Item : 0017		Picklist:		
0018	L	41750501251-00			17511259					IS06	
			2.000	EA	0.000	0.000	0.000		0.000		
Material Description : SHIPPING CAP (FOR HPH T1 & T2)					Reservation : 0015917472		Item : 0018		Picklist:		
0019	L	41750501397-01A			17511266					IS06	
			2.000	EA	0.000	0.000	0.000		0.000		
Material Description : TEST COVER ASSEMBLY					Reservation : 0015917472		Item : 0019		Picklist:		
0020	L	HE9711343185			17511274					ST06	
HE51113-NA			1.000	EA	0.000	0.000	0.000		0.000		
Material Description : TEST COVER HPH8AB S1 NOZZ					Reservation : 0015917472		Item : 0020		Picklist:		
0021	L	21750501318-01			17511275					IS06	
			2.000	EA	0.000	0.000	0.000		0.000		
Material Description : HP HEATER 8A IDENTIFICATION RING					Reservation : 0015917472		Item : 0021		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
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## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date -

Plant: P006		Equipment No: HEH2949			102199593	11.11.2025
Type	WBS Element	Customer / Project Name			Part No	
	P-1032283900-17511	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17511001	
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501318-00	01		21750501318-00		HP HEATER 8A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	107,740.000	
						MDCC
						Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.		
0022	L	HE9791003017			17511277						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : 3/8" BAR PLUG CS					Reservation :	Item : 0022		Picklist:			
					0015917472						

0023	L	HE9791003068			17511278						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : 1 1/2" BAR PLUG CS					Reservation :	Item : 0023		Picklist:			
					0015917472						

0024	L	HY7246761284			17511279						
HY7246761		1.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : CS BLND FLANGE 3" # 600 RF					Reservation :	Item : 0024		Picklist:			
					0015917472						

0025	L	HY7142198192			17511280						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41		
Material Description : STUD 2 NUTS M20X130					Reservation :	Item : 0025		Picklist:1000734483			
					0015917472						

0026	L	HY7240366065			17511281						
HY7240366		1.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : NAB M.S.W. GASKET SIZE 3" # 600 GRPH					Reservation :	Item : 0026		Picklist:			
					0015917472						

0027	L	HE9711343207			17511282						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : TEST COVER HPH8AB S3 NOZZ					Reservation :	Item : 0027		Picklist:			
					0015917472						

0028	L	41750501525-01			17511283						
		2.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : PIPE (FOR CHANNEL TRUNNION)					Reservation :	Item : 0028		Picklist:			
					0015917472						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No: HEH2949	102199593	11.11.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032283900-17511	ANUPPUR THERMAL ENERGY (MP) PRIVATE	17511001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501318-00	01		21750501318-00
			Name Of The Part
			HP HEATER 8A MAIN ASSLY
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			107.740.000
			Remarks
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.	
0029	L	41750501525-02	17511285							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : END PLATE (FOR CHANNEL TRUNNION)			Reservation :	Item : 0029		Picklist:				
			0015917472							

0030	L	HE9711343215	17511287						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	SI06
Material Description : TEST COVER HPH8AB S11 NOZZ			Reservation :	Item : 0030		Picklist:			
			0015917472						

0040	L	31750100343-00	17511288						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS			Reservation :	Item : 0031		Picklist:			
			0015917472						

0050	L	TC9756557109	17511999						
TC56557-10		10.000	EA	0.000	0.000	0.000		0.000	SI06
Material Description : FLANGE 8" 150 SORF SS182F316L+IGC			Reservation :	Item : 0032		Picklist:1009737616			
			0015917472						

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHIT P-1032283900-17511:

S.R Temperature --- 600 - 650°C

Rate of heating from 300°C -- 69°C / Hour (75 mm)

Soaking Time (Minimum) -- 130 Minutes(63 mm)

Rate of cooling upto 400°C -- 88°C / Hour

Further cooling in still air.

REFER PLANT STANDARD HY0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Pinr	Rate Fixr / Tool Pinr	Pg no	No.of Pgs
	21.04.2026					5	6



TECHNOLOGICAL PROCESS

Production Order

Date

Plant:P006

Equipment No: HEH2949

102199593

11.11.2025

Type

Work Order / PGMA

Customer

Part No

P-1032283900-17511/  
17511

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17511001

Drawing No.-Var	E.Rev.	T.Rev.	Material No.	Name Of The Part			
21750501318-00	01		21750501318-00	HIP HEATER 8A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	
	1.000	1.000	EA	IS06	107.740.000		

Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				

Sub Operation Text

furnace thermocouples shall be used.  
 If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.  
 Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.  
 Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



TE CARD

# TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No: HEH2951

102200074

11.11.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032284100-17523

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17523291

Drawing No.-Var

E.Rev

T.Rev

Material No.

Name Of The Part

21750501320-00

01

21750501320-00

HP HEATER 9A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

98,990.000

Yes

## BOM Details

Pos.No	IC	Material Code	P.No	Remarks				MPcs	St.
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key		
0001	L	31750501553-TBS	17523002						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : BUNDLE ASSLY FOR HPH 9AB T/S BAF SPA MC			Reservation : 0015918444	Item : 0001		Picklist:			

0002	L	31750501554-00B	17523111						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : SHELL ASSLY HPH 9A/B (NOZZ MC)			Reservation : 0015918444	Item : 0002		Picklist:			

0003	L	HE9791003033	17523143						ST06
HE91003		10.000	EA	0.000	0.000	0.000		0.000	
Material Description : 3/4" BAR PLUG CS			Reservation : 0015918444	Item : 0003		Picklist:			

0004	L	HE9711343231	17523144						ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER HPH9AB S2 NOZZ			Reservation : 0015918444	Item : 0004		Picklist:			

0005	L	HE9791003025	17523145						ST06
HE91003		7.000	EA	0.000	0.000	0.000		0.000	
Material Description : 1/2" BAR PLUG CS (SA105)			Reservation : 0015918444	Item : 0005		Picklist:			

0006	L	41750101376-00	17523146						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : LIQ.LVL. PLATE BRACKET			Reservation : 0015918444	Item : 0006		Picklist:			

0007	L	HE9715674097	17523151						ST06
NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : LIQUID LEVEL NAME PLATE			Reservation : 0015918444	Item : 0007		Picklist:			

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plncr	Rate Fixr / Tool Plncr	Pg no	No. of Pgs
	21.04.2026					1	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order: 102200074 Date: 11.11.2025

Plant: P006	Equipment No: HEH2951	102200074	11.11.2025
Type	WBS Element	Customer / Project Name	
	P-1032284100-17523	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var	E.Rev.	T.Rev.	Material No.
21750501320-00	01		21750501320-00
			Name Of The Part
			HP HEATER 9A MAIN ASSLY
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			98,990.000
			Remarks
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0008	L	AA7174006035	17523152							
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : RIVET 4X12-CU FLAT CSK				Reservation :	Item : 0008	Picklist:				
				0015918444						
0009	L	41750102806-00	17523153							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE HOLDER				Reservation :	Item : 0009	Picklist:				
				0015918444						
0010	L	31750100182-00	17523158							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR HPH				Reservation :	Item : 0010	Picklist:				
				0015918444						
0011	L	41750501240-00	17523160							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT (IPH-9 A/B)				Reservation :	Item : 0011	Picklist:				
				0015918444						
0012	L	41750501004-00	17523171							
		4.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation :	Item : 0012	Picklist:				
				0015918444						
0013	L	31750501559-00A	17523184							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SKIRT ASSLY HPH 9A/B (NOZZ MC)				Reservation :	Item : 0013	Picklist:				
				0015918444						
0014	L	41750501524-00	17523207							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : CHANNEL SUPPORT ASSLY (IPH-7,8,9 A/B)				Reservation :	Item : 0014	Picklist:				
				0015918444						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No: HEH2951	102200074	11.11.2025
Type	WBS Element	Customer / Project Name	
	P-103228410(-17523	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501320-00	01		21750501320-00
Name Of The Part			Part No
HP HEATER 9A MAIN ASSLY			17523291
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	
IS06	98,990.000		
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.	
0015	L	31750501563-00A	17523216						IS06	
		1.000	EA	0.000	0.000	0.000		0.000		
Material Description : HEMIHEAD ASSLY HPH 7A/B (NOZZ MC)				Reservation : 0015918444	Item : 0015		Picklist:			

0016	L	31750501168-00A	17523242						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation : 0015918444	Item : 0016		Picklist:		

0017	L	HE9712514412	17523253						ST06
NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation : 0015918444	Item : 0017		Picklist:		

0018	L	41750501251-00	17523254						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : SHIPPING CAP (FOR HPH T1 & T2)				Reservation : 0015918444	Item : 0018		Picklist:		

0019	L	41750501397-01A	17523261						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER ASSEMBLY				Reservation : 0015918444	Item : 0019		Picklist:		

0020	L	HE9711343223	17523269						ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER HPH9AB S1 NOZZ				Reservation : 0015918444	Item : 0020		Picklist:		

0021	L	21750501320-01	17523270						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : HP HEATER 9A IDENTIFICATION RING				Reservation : 0015918444	Item : 0021		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order      Date

Plant: P006		Equipment No: HEH2951			102200074		11.11.2025	
Type		WBS Element		Customer / Project Name			Part No	
		P-1032284100-17523		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17523291	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part		
21750501320-00		01		21750501320-00		HP HEATER 9A MAIN ASSLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks		MDCC
	1.000	1.000	EA	IS06	98.990.000			Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0022	L	HE9791003017			17523272					
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/8" BAR PLUG CS					Reservation : 0015918444	Item : 0022		Picklist:		

0023	L	HE9791003068			17523273					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1 1/2" BAR PLUG CS					Reservation : 0015918444	Item : 0023		Picklist:		

0024	L	HE9712294951			17523274					
HY7246761		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : CS BLIND FLANGE 3"-900# RF					Reservation : 0015918444	Item : 0024		Picklist:		

0025	L	HY7142198362			17523275					
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M22X150					Reservation : 0015918444	Item : 0025		Picklist:		

0026	L	HY7240367061			17523276					
HY7240367		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : NAB M.S.W. GASKET SIZE 3" #900 GRPH					Reservation : 0015918444	Item : 0026		Picklist:		

0027	L	41750501525-01			17523277					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : PIPE (FOR CHANNEL TRUNNION)					Reservation : 0015918444	Item : 0027		Picklist:		

0028	L	41750501525-02			17523279					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : END PLATE (FOR CHANNEL TRUNNION)					Reservation : 0015918444	Item : 0028		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No: HEH2951		102200074		11.11.2025	
Type		WBS Element		Customer / Project Name		Part No	
P-1032284100-17523		ANUPPUR THERMAL ENERGY (MP) PRIVATE				17523291	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501320-00		01		21750501320-00		HP HEATER 9A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	98,990.000		Yes

### BOM Details

Pos.No	IC	Material Code		P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0029	L	HE9711343240		17523281					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH9AB S11 NOZZ				Reservation : 0015918444		Item : 0029		Picklist:	

0040	L	31750100343-00		17523282					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation : 0015918444		Item : 0030		Picklist:	

0050	L	TC9756557087		17523999					
TC56557-08		15.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : FLANGE 6" 150 SORF SS182F316L+IGC				Reservation : 0015918444		Item : 0031		Picklist:1000737616	

### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Sub Operation Text

Skirt Assly PWHT P-1032284100-17523:  
 PWHT Chart shall be approved by QC & CIB.  
 Support DC & DSH shrouds suitably to avoid deformation  
 S.R Temperature - 650 - 690°C  
 Rate of heating from 300°C- 55°C/Hour(Heating/Cooling-530 mm)  
 Soaking Time ( minimum ) - 220 Minutes(Soaking=90 mm)  
 Rate of cooling upto 400°C- 55°C / Hour  
 Further cooling in still air  
 REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints. Contd.  
 If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6



**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant: P006

Equipment No: HEH2951

102200074

11.11.2025

Type

Work Order / PGMA

Customer

Part No

P-1032284100-17523/  
17523

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17523291

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501320-00

01

21750501320-00

HP HEATER 9A MAJN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

98,990.000

**Operation Details**

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

**Sub Operation Text**

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.  
Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No: HEH2951			102200074	11.11.2025
Type	WBS Element	Customer / Project Name			Part No	
	P-1032284100-17523	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17523291	
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501320-00	01-		21750501320-00		HP HEATER 9A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	98,990.000	
						MDCC
						Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.		
0001	L	31750501553-TBS			17523002						
		1.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : BUNDLE ASSLY FOR HPH 9AB T/S BAF SPA MC				Reservation : 0015918444		Item : 0001		Picklist:			

0002	L	31750501554-00B			17523111						
		1.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : SHELL ASSLY HPH 9A/B (NOZZ MC)				Reservation : 0015918444		Item : 0002		Picklist:			

0003	L	HE9791003033			17523143						
HE91003		10.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : 3/4" BAR PLUG CS				Reservation : 0015918444		Item : 0003		Picklist:			

0004	L	HE9711343231			17523144						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : TEST COVER (IPH9AR S2 NOZZ				Reservation : 0015918444		Item : 0004		Picklist:			

0005	L	HE9791003025			17523145						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0015918444		Item : 0005		Picklist:			

0006	L	41750101376-00			17523146						
		1.000	EA	0.000	0.000	0.000		0.000	IS06		
Material Description : LIQ.LVL PLATE BRACKET				Reservation : 0015918444		Item : 0006		Picklist:			

0007	L	HE9715674097			17523151						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06		
Material Description : LIQUID LEVEL NAME PLATE				Reservation : 0015918444		Item : 0007		Picklist:			

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Flxr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					1	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No: HEH2951

102200074

11.11.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032284100-17523

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17523291

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501320-00

01

21750501320-00

HP HEATER 9A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

98,990.000

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0008	L	AA7174006035	17523152							
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : RIVET 4X12-CU FLAT CSK				Reservation : 0015918444		Item : 0008		Picklist:		

0009	L	41750102806-00	17523153						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation : 0015918444		Item : 0009		Picklist:	

0010	L	31750100182-00	17523158						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR IIPH				Reservation : 0015918444		Item : 0010		Picklist:	

0011	L	41750501240-00	17523160						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT (HPH-9 A/B)				Reservation : 0015918444		Item : 0011		Picklist:	

0012	L	41750501004-00	17523171						
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation : 0015918444		Item : 0012		Picklist:	

0013	L	31750501539-00A	17523184						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY IIPH 9A/B (NOZZ MC)				Reservation : 0015918444		Item : 0013		Picklist:	

0014	L	41750501524-00	17523207						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY (HPH-7,8,9 A/B)				Reservation : 0015918444		Item : 0014		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	6



# TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No: HEH2951

102200074

11.11.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032284100-17523

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17523291

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501320-00

01

21750501320-00

HP HEATER 9A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

98,990.000

Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	31750501563-00A	17523216							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : HEMIHEAD ASSLY HPH 7A/B (NOZZ MC)				Reservation : 0015918444		Item : 0015		Picklist:		

0016	L	31750501168-00A	17523242						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation : 0015918444		Item : 0016		Picklist:	

0017	L	HE9712514412	17523253						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation : 0015918444		Item : 0017		Picklist:	

0018	L	41750501251-00	17523254						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP (FOR HPH T1 & T2)				Reservation : 0015918444		Item : 0018		Picklist:	

0019	L	41750501397-01A	17523261						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY				Reservation : 0015918444		Item : 0019		Picklist:	

0020	L	HE9711343223	17523269						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH9A/B S1 NOZZ				Reservation : 0015918444		Item : 0020		Picklist:	

0021	L	21750501320-01	17523270						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HP HEATER 9A IDENTIFICATION RING				Reservation : 0015918444		Item : 0021		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

102200074

11.11.2025

Plant: P006

Equipment No: HEH2951

Type

WBS Element

Customer / Project Name

Part No

P-1032284100-17523

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17523291

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501320-00

01

21750501320-00

HP HEATER 9A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

98,990.000

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0022	L	HE9791003017	17523272							
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/8" BAR PLUG CS				Reservation : 0015918444		Item : 0022		Picklist:		

0023	L	HE9791003068	17523273						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0015918444		Item : 0023		Picklist:	

0024	L	HE9712294951	17523274						
HY7246761		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : CS BLIND FLANGE 3"-900# RF				Reservation : 0015918444		Item : 0024		Picklist:	

0025	L	HY7142198362	17523275						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M22X150				Reservation : 0015918444		Item : 0025		Picklist:	

0026	L	HY7240367061	17523276						
HY7240367		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 3" #900 GRPII				Reservation : 0015918444		Item : 0026		Picklist:	

0027	L	41750501525-01	17523277						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : PIPE (FOR CHANNEL TRUNNION)				Reservation : 0015918444		Item : 0027		Picklist:	

0028	L	41750501525-02	17523279						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : END PLATE (FOR CHANNEL TRUNNION)				Reservation : 0015918444		Item : 0028		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No: HEH2951	102200074	11.11.2025
Type	WBS Element	Customer / Project Name	
	P-1032284100-17523	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501320-00	01		21750501320-00
			Name Of The Part
			HP HEATER 9A MAIN ASSLY
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			98.990.000
			Remarks
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0029	L	HE9711343240	17523281						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH9AB S11 NOZZ				Reservation :	Item :	Picklist:			
				0015918444	0029				

0040	L	31750100343-00	17523282						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation :	Item :	Picklist:			
				0015918444	0030				

0050	L	TC9756557087	17523999						
TC56557-08		15.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : FLANGE G" 150 SORF SS182F316L+JGC				Reservation :	Item :	Picklist:1000737616			
				0015918444	0031				


**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-1032284100-17523:  
 PWHT Chart shall be approved by QC & CIB.  
 S.R Temperature - 600°C - 650°C  
 Rate of heating from 300°- 64°C / Hour(Heating/Cooling-80 mm)  
 Soaking Time ( Minimum ) - 145 Minutes ( Soaking-80 mm )  
 Rate of cooling upto 400°C- 82°C / Hour  
 Further cooling in still air.  
 REFER PLANT STANDARD HY0640763 FOR S.R.  
 NOTE : Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the furnace thermocouples shall be used.  
 If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.  
 Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.  
 Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No.of Pgs
	21.04.2026					5	6

		<b>TECHNOLOGICAL PROCESS</b>				Production Order	Date	
Plant: P006		Equipment No: 11EH2951				102200074	11.11.2025	
Type		Work Order / PGMA		Customer		Part No		
		P-1032284100-17523/ 17523		ANUPPUR THERMAL ENERGY (MP) PRIVATE		17523291		
Drawing No.-Var		E.Rev.	T.Rev.	Material No.		Name Of The Part		
21750501320-00		01		21750501320-00		HP HEATER 9A MAIN ASSLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks		
	1.000	1.000	EA	IS06	98,990.000			
<b>Operation Details</b>								
Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs.
	21.04.2026					6	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102211038	20.01.2026
Type	WBS Element	Customer / Project Name	Part No
	P-1032298500-17501	M/s Hindalco Industries Ltd. (HIL)	17501001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101742	00		21750101742-00
Name Of The Part			
HP HEATER-5 (ADITYA 150MW)			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	MDCC
IS06	19,610.000	HP HEATER NO-5	Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750101788-00	17501002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS (HPH-5)				Reservation :	Item : 0001	Picklist:				
				0016021867						

0002	L	31750101795-00	17501097						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSLY HPH 5				Reservation :	Item : 0002	Picklist:			
				0016021867					

0003	L	31750101796-00	17501137						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY				Reservation :	Item : 0003	Picklist:			
				0016021867					

0004	L	31750101797-00	17501168						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMI HEAD ASSLY				Reservation :	Item : 0004	Picklist:			
				0016021867					

0005	L	41750102205-00	17501196						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SUPPORT DETAILS (FOR HPH)				Reservation :	Item : 0005	Picklist:			
				0016021867					

0006	L	41750102201-00A	17501203						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY COVER				Reservation :	Item : 0006	Picklist:			
				0016021867					

0007	L	HE9717684278	17501205	MA BY QC					
		12.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : STUD WITH ONE NUT M56X3X280				Reservation :	Item : 0007	Picklist:			
				0016021867					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Egs.
	21.04.2026					1	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

102211038

20.01.2026

Plant: P006

Equipment No:

Type

WBS Element

Customer / Project Name

Part No

P-1032298500-17501

M/s Hindalco Industries Ltd. (HIL)

17501001

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101742

00

21750101742-00

HP HEATER-5 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

19.610.000

HP HEATER NO-5

Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0008	L	HY7161096260	17501206						
HY7161096-00-00-01		12.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : WASHER MCD GAL 58-ST				Reservation : 0016021867		Item : 0008		Picklist:1000735375	

0009	L	41750101228-00	17501207						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MAN HOLE DIAPHRAGM				Reservation : 0016021867		Item : 0009		Picklist:	

0010	L	HE9791003068	17501209	MA BY QC & CIB					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0016021867		Item : 0010		Picklist:	

0011	L	HE9791003033	17501210	MA BY QC & CIB					
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0016021867		Item : 0011		Picklist:	

0012	L	41750101580-03	17501211						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER FOR T1/T2				Reservation : 0016021867		Item : 0012		Picklist:	

0013	L	41750101580-00	17501213						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP ASSLY.				Reservation : 0016021867		Item : 0013		Picklist:	

0014	L	HY7246772103	17501217						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BLIND CS 4" CL 300 RAISED FACE				Reservation : 0016021867		Item : 0014		Picklist:1000735376	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102211038	20.01.2026
Type	WBS Element	Customer / Project Name	Part No
	P-1032298500-17501	M/s Hindalco Industries Ltd. (HIL)	17501001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101742	00		21750101742-00
			Name Of The Part
			HP HEATER-5 (ADITYA 150MW)
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			St.
			IS06
			Nt.Wt.
			19.610.000
			Remarks
			HP HEATER NO-5
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	HY7142198206	17501218							
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M20X140				Reservation :	Item :	Picklist:1000734483				
				0016021867	0015					

0016	L	HY7240365077	17501219						
HY7240365		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 GRPH				Reservation :	Item :	Picklist:			
				0016021867	0016				

0017	L	21750101742-17	17501220						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER FOR S3				Reservation :	Item :	Picklist:			
				0016021867	0017				

0018	L	HE9791003025	17501222						
HE91003		8.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation :	Item :	Picklist:			
				0016021867	0018				

0019	L	41750101178-00	17501223						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation :	Item :	Picklist:			
				0016021867	0019				

0020	L	31750100182-00	17501228						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH				Reservation :	Item :	Picklist:			
				0016021867	0020				

0021	L	AA7174006035	17501230						
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : RIVET 4X12-CU FLAT CSK				Reservation :	Item :	Picklist:			
				0016021867	0021				

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102211038	20.01.2026
Type	WBS Element	Customer / Project Name			Part No
	P-1032298500-17501	M/s Hindalco Industries Ltd. (HIL)			17501001
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750101742	00		21750101742-00	HP HEATER-5 (ADITYA 150MW)	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	19,610.000
Remarks					MDCC
HP HEATER NO-5					Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.	
0022	L	41750101376-00	17501231						IS06	
		1.000	EA	0.000	0.000	0.000		0.000		
Material Description : LIQ.LVL PLATE (BRACKET)				Reservation :	Item : 0022	Picklist:				
				0016021867						

0023	L	HE9715674097	17501236						IS06
NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : LIQUID LEVEL NAME PLATE				Reservation :	Item : 0023	Picklist:			
				0016021867					

0024	L	21750101742-24	17501237						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : IDENTIFICATION RING (L-3315)				Reservation :	Item : 0024	Picklist:			
				0016021867					

0025	L	31750100343-00	17501239						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : NITROGEN BLANKETING DETAILS				Reservation :	Item : 0025	Picklist:			
				0016021867					

### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-1032298500-17501:  
PWHT chart shall be approved by CIB & QC.  
Support DC & DSH shrouds to avoid deformation.

S.R. Temperature - 650°C - 690°C  
Rate of Heating from 300°C - 55°C/Hour  
Soaking Time Minimum - 65 Minutes.  
Rate of cooling upto 400°C - 55°C/Hour.

Further cooling in still air.  
REFER PLANT STANDARD HY 0640763.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5



### TECHNOLOGICAL PROCESS

Production Order

Date

Plant:P006

Equipment No:

102211038

20.01.2026

Type

Work Order / PGMA

Customer

Part No

P-1032298500-17501/  
17501

M/s Hindalco Industries Ltd. (HIL)

17501001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750101742

00

21750101742-00

HP HEATER-5 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

19,610.000

HP HEATER NO-5

#### Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

#### Sub Operation Text

If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	5



## TECHNOLOGICAL PROCESS RE-PRINT

**Production Order**
**Date**

Plant: P006		Equipment No:		102211038	20.01.2026		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032298500-17501	M/s Hindalco Industries Ltd. (HIL)			17501001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750101742	00		21750101742-00	HP HEATER-5 (ADITYA 150MW)			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	19.610.000	HIP HEATER NO-5	Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0001	L	31750101788-00	17501002						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : BUNDLE DETAILS (HIPH-5)				Reservation :	Item : 0001	Picklist:			
				0016021867					

0002	L	31750101795-00	17501097						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSLY HPH 5				Reservation :	Item : 0002	Picklist:			
				0016021867					

0003	L	31750101796-00	17501137						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY				Reservation :	Item : 0003	Picklist:			
				0016021867					

0004	L	31750101797-00	17501168						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMI HEAD ASSLY				Reservation :	Item : 0004	Picklist:			
				0016021867					

0005	L	41750102205-00	17501196						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SUPPORT DETAILS (FOR HPH)				Reservation :	Item : 0005	Picklist:			
				0016021867					

0006	L	41750102201-00A	17501203						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY COVER				Reservation :	Item : 0006	Picklist:			
				0016021867					

0007	L	HB9717684278	17501205	MA BY QC					
HY7142299		12.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : STUD WITH ONE NUT M56X3X280				Reservation :	Item : 0007	Picklist:			
				0016021867					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

102211038

20.01.2026

Plant: P006

Equipment No:

Type

WBS Element

Customer / Project Name

Part No

P-1032298500-17501

M/s Hindalco Industries Ltd. (HIL)

17501001

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101742

00

21750101742-00

HP HEATER-5 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

19.610.000

HP HEATER NO-5

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0008	L	HY7161096260	17501206							
HY7161096-00-00-01		12.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : WASHER MCD GAL. 58-ST				Reservation : 0016021867		Item : 0008		Picklist: 1000735375		

0009	L	41750101228-00	17501207						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MAN HOLE DIAPHRAGM				Reservation : 0016021867		Item : 0009		Picklist:	

0010	L	HE9791003068	17501209	MA BY QC & CIB					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0016021867		Item : 0010		Picklist:	

0011	L	HE9791003033	17501210	MA BY QC & CIB					
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0016021867		Item : 0011		Picklist:	

0012	L	41750101580-03	17501211						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER FOR TI/T2				Reservation : 0016021867		Item : 0012		Picklist:	

0013	L	41750101580-00	17501213						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP ASSLY.				Reservation : 0016021867		Item : 0013		Picklist:	

0014	L	HY7246772103	17501217						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BLIND CS 4" CL 300 RAISED FACE				Reservation : 0016021867		Item : 0014		Picklist: 1000735376	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102211038	20.01.2026
Type	WBS Element	Customer / Project Name	Part No
	P-1032298500-17501	M/s Hindalco Industries Ltd. (HIL)	17501001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101742	00		21750101742-00
			Name Of The Part
			HP HEATER-5 (ADITYA 150MW)
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	
IS06	19.610.000	HP HEATER NO-5	
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0015	L	HY7142198206	17501218							
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M20X140				Reservation :	Item :	Picklist:1000734483				
				0016021867	0015					

0016	L	HY7240365077	17501219							
HY7240365		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : NAB M.S.W. GASKET SIZE 4" #300 GRPH				Reservation :	Item :	Picklist:				
				0016021867	0016					

0017	L	21750101742-17	17501220							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : TEST COVER FOR S3				Reservation :	Item :	Picklist:				
				0016021867	0017					

0018	L	HE9791003025	17501222							
HE91003		8.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation :	Item :	Picklist:				
				0016021867	0018					

0019	L	41750101178-00	17501223							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE HOLDER				Reservation :	Item :	Picklist:				
				0016021867	0019					

0020	L	31750100182-00	17501228							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR HP11				Reservation :	Item :	Picklist:				
				0016021867	0020					

0021	L	AA7174006035	17501230							
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : RIVET 4X12-CU FLAT CSK				Reservation :	Item :	Picklist:				
				0016021867	0021					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

102211038

20.01.2026

Plant: P006

Equipment No:

Type

WBS Element

Customer / Project Name

Part No

P-1032298500-17501

M/s Hindalco Industries Ltd. (HIL)

17501001

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101742

00

21750101742-00

HP HEATER-5 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

19.610.000

HP HEATER NO-5

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0022	L	41750101376-00	17501231							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : LIQ.LVL. PLATE BRACKET				Reservation : 0016021867		Item : 0022		Picklist:		

0023	L	HE9715674097	17501236						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE				Reservation : 0016021867		Item : 0023		Picklist:	

0024	L	21750101742-24	17501237						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING (L=3315)				Reservation : 0016021867		Item : 0024		Picklist:	

0025	L	31750100343-00	17501239						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation : 0016021867		Item : 0025		Picklist:	

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Hemi head Assly PWHT P-1032298500-17501:  
PWHT Chart shall be approved by QC & CIB

S.R. Temperature - 600°C - 650°C  
Rate of Heating from 300°C - 55°C/Hour  
Soaking Time Minimum - 175 Minutes.  
Rate of cooling upto 400°C - 55°C/Hour.

Further cooling in still air.

REFER PLANT STANDARD HY0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints.  
If single hemi head is loaded then two thermocouples shall be placed on the hemi head, one at hemi head to manway nozzle weld joint and one at

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5



### TECHNOLOGICAL PROCESS

Production Order

Date

Plant:P006

Equipment No:

102211038

20.01.2026

Type

Work Order / PGMA

Customer

Part No

P-1032298500-17501/  
17501

M/s Hindalco Industries Ltd. (HIL)

17501001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750101742

00

21750101742-00

HP HEATER-5 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

19,610.000

HP HEATER NO-5

#### Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

#### Sub Operation Text

T1/T2 nozzle to hemi head joint. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHIL QC only after PWHT chart is cleared by BHIL QC.

Send the assembly to 06-shop, BHIL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102213873	27.01.2026
Type	WBS Element	Customer / Project Name			Part No
	P-1032298600-17505	M/s Hindalco Industries Ltd. (HIL)			17505247
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750501349	(0)		21750501349-00	HP HEATER-6 (ADITYA 150MW)	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	22.260.000
Remarks					MDCC
					Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750500672-00	17505002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS (HPH-6)				Reservation :	Item : 0001	Picklist:				
				0016041693						

0002	L	31750500677-00	17505096						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSLY HPH 6				Reservation :	Item : 0002	Picklist:			
				0016041693					

0003	L	31750500678-00	17505134						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY				Reservation :	Item : 0003	Picklist:			
				0016041693					

0004	L	31750101797-00	17505169						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMI HEAD ASSLY				Reservation :	Item : 0004	Picklist:			
				0016041693					

0005	L	41750102205-00	17505197						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SUPPORT DETAILS (FOR HPH)				Reservation :	Item : 0005	Picklist:			
				0016041693					

0006	L	41750102201-00A	17505204						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY COVER				Reservation :	Item : 0006	Picklist:			
				0016041693					

0007	L	HE9717684278	17505206	MA by QC.					
HY7142299		12.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : STUD WITH ONE NUT M56X3X280				Reservation :	Item : 0007	Picklist:			
				0016041693					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102213873	27.01.2026		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032298600-17505	M/s Hindalco Industries Ltd. (HIL)			17505247		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501349	00		21750501349-00	HP HEATER-6 (ADITYA 150MW)			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	22.260.000		Yes

### BOM Details

Pos.No	IC	Material Code		P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.
0008	L	HY7161096260		17505207					
HY7161096-00-00-01		12.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : WASHER MCD GAL 58-ST				Reservation : 0016041693	Item : 0008		Picklist:1000735375		

0009	L	41750101228-00		17505208					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MAN HOLE DIAPHRAGM				Reservation : 0016041693	Item : 0009		Picklist:		

0010	L	HE9791003068		17505210					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0016041693	Item : 0010		Picklist:		

0011	L	HE9791003033		17505211					
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0016041693	Item : 0011		Picklist:		

0012	L	41750101580-03		17505212					
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER FOR T1/T2				Reservation : 0016041693	Item : 0012		Picklist:		

0013	L	41750101580-00		17505214					
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP ASSLY.				Reservation : 0016041693	Item : 0013		Picklist:		

0014	L	HY7246772103		17505218					
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BLIND CS 4" CL 300 RAISED FACE				Reservation : 0016041693	Item : 0014		Picklist:1000735376		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:			102213873	27.01.2026
Type	WBS Element	Customer / Project Name			Part No	
	P-1032298600-17505	M/s Hindalco Industries Ltd. (HIL)			17505247	
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part		
21750501349	00		21750501349-00	HP HEATER-6 (ADITYA 150MW)		
Pas.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	MDCC
	1.000	1.000	EA	IS06	22.260.000	Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.
0015	L	HY7142198206	17505219	MA BY QC					
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M20X140				Reservation : 0016041693		Item : 0015		Picklist:1000734483	

0016	L	HY7240365077	17505220						
HY7240365		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 GRPH				Reservation : 0016041693		Item : 0016		Picklist:	

0017	L	21750101742-24	17505221						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING (L=3315)				Reservation : 0016041693		Item : 0017		Picklist:	

0018	L	HE9791003025	17505223						
HE91003		8.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0016041693		Item : 0018		Picklist:	

0019	L	41750101178-00	17505224						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation : 0016041693		Item : 0019		Picklist:	

0020	L	31750100182-00	17505229						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH				Reservation : 0016041693		Item : 0020		Picklist:	

0021	L	AA7174006035	17505231						
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : RIVET 4X12-CU FLAT CSK				Reservation : 0016041693		Item : 0021		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102213873

27.01.2026

Type

WBS Element

Customer / Project Name

Part No

P-1032298600-17505

M/s Hindalco Industries Ltd. (HIL)

17505247

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501349

00

21750501349-00

HP HEATER-6 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

22,260.000

Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0022	L	41750101376-00	17505232						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET			Reservation : 0016041693		Item : 0022		Picklist:		

0023	L	HE9715674097	17505237						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE			Reservation : 0016041693		Item : 0023		Picklist:		

0024	L	31750100343-00	17505238						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS			Reservation : 0016041693		Item : 0024		Picklist:		

### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-1032298600-17505:

PWHT chart shall be approved by CIB &amp; QC

Support DC &amp; DSH shrouds to avoid deformation.

S.R. Temperature - 600°C - 650°C  
 Rate of Heating from 300°C - 55°C/Hour  
 Soaking Time Minimum - 65 Minutes.  
 Rate of cooling upto 400°C - 55°C/Hour.

Further cooling in still air.

REFER PLANT STANDARD HY 0640763.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5



### TECHNOLOGICAL PROCESS

Production Order

Date

Plant: P006

Equipment No:

102213873

27.01.2026

Type

Work Order / PGMA

Customer

Part No

P-1032298600-17505/  
17505

M/s Hindalco Industries Ltd. (HIL)

17505247

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501349

00

21750501349-00

HP HEATER-6 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

22.260.000

#### Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

#### Sub Operation Text

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHI' chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No.of Pgs
	21.04.2026					5	5



DUPLICATE CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102213873	27.01.2026
Type	WBS Element	Customer / Project Name	Part No
	P-1032298600-17505	M/s Hindalco Industries Ltd. (HIL)	17505247
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501349	00		21750501349-00
Name Of The Part			
HP HEATER-6 (ADITYA 150MW)			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			St.
			1S06
			Nt.Wt.
			22.260.000
Remarks			MDCC
			Yes

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750500672-00	17505002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS (HPH-6)			Reservation :	Item : 0001		Picklist:				
			0016041693							

0002	L	31750500677-00	17505096						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSLY HPH 6			Reservation :	Item : 0002		Picklist:			
			0016041693						

0003	L	31750500678-00	17505134						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY			Reservation :	Item : 0003		Picklist:			
			0016041693						

0004	L	31750101797-00	17505169						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMI HEAD ASSLY			Reservation :	Item : 0004		Picklist:			
			0016041693						

0005	L	41750102205-00	17505197						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SUPPORT DETAILS (FOR HPH)			Reservation :	Item : 0005		Picklist:			
			0016041693						

0006	L	41750102201-00A	17505204						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY COVER			Reservation :	Item : 0006		Picklist:			
			0016041693						

0007	L	HE9717684278	17505206	MA by QC.					
HY7142299		12.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : STUD WITH ONE NUT M56X3X280			Reservation :	Item : 0007		Picklist:			
			0016041693						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs.
	21.04.2026					1	4



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102213873

27.01.2026

Type

WBS Element

Customer / Project Name

Part No

P-1032298600-17505

M/s Hindalco Industries Ltd. (HIL)

17505247

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501349

00

21750501349-00

HP HEATER-6 (ADITYA 150MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

22.260.000

Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Mail.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0008	L	HY7161096260	17505207							
HY7161096-00-00-01		12.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : WASHER MCD GAL 58-ST				Reservation : 0016041693		Item : 0008		Picklist:1000735375		

0009	L	41750101228-00	17505208						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MAN HOLE DIAPHRAGM				Reservation : 0016041693		Item : 0009		Picklist:	

0010	L	HE9791003068	17505210						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0016041693		Item : 0010		Picklist:	

0011	L	HE9791003033	17505211						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0016041693		Item : 0011		Picklist:	

0012	L	41750101580-03	17505212						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER FOR T1/T2				Reservation : 0016041693		Item : 0012		Picklist:	

0013	L	41750101580-00	17505214						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP ASSLY.				Reservation : 0016041693		Item : 0013		Picklist:	

0014	L	HY7246772103	17505218						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BLIND CS 4" CI. 300 RAISED FACE.				Reservation : 0016041693		Item : 0014		Picklist:1000735376	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	4



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:			102213873	27.01.2026
Type	WBS Element		Customer / Project Name			Part No
	P-1032298600-17505		M/s Hindalco Industries Ltd. (HIL)			17505247
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501349	00		21750501349-00		HP HEATER-6 (ADITYA 150MW)	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	22,260.000	
						MDCC
						Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0015	L	HY7142198206			17505219	MA BY QC				
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M20X140				Reservation : 0016041693		Item : 0015		Picklist:1000734483		

0016	L	HY7240365077			17505220					
HY7240365		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : NAB M.S.W. GASKET SIZE 4" #300 GRPH				Reservation : 0016041693		Item : 0016		Picklist:		

0017	L	21750101742-24			17505221					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : IDENTIFICATION RING (L=3315)				Reservation : 0016041693		Item : 0017		Picklist:		

0018	L	HE9791003025			17505223					
HE91003		8.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0016041693		Item : 0018		Picklist:		

0019	L	41750101178-00			17505224					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE HOLDER				Reservation : 0016041693		Item : 0019		Picklist:		

0020	L	31750100182-00			17505229					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR HPH				Reservation : 0016041693		Item : 0020		Picklist:		

0021	L	AA7174006035			17505231					
AA7174006		6.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : RIVET 4X12-CU FLAT CSK				Reservation : 0016041693		Item : 0021		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No. of Pgs
	21.04.2026					3	4



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102213873	27.01.2026
Type	WBS Element	Customer / Project Name	
	P-1032298600-17505	M/s Hindalco Industries Ltd. (HIL)	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501349	00		21750501349-00
Name Of The Part			Part No
HP HEATER-6 (ADITYA 150MW)			17505247
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	
IS06	22,260.000		
			MDCC
			Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0022	L	41750101376-00	17505232						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ LVL PLATE BRACKET				Reservation :	Item : 0022	Picklist:			
				0016041693					

0023	L	10E9715674097	17505237						
NA		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQUID LEVEL NAME PLATE				Reservation :	Item : 0023	Picklist:			
				0016041693					

0024	L	31750100343-00	17505238						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation :	Item : 0024	Picklist:			
				0016041693					

### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-1032298600-17505:

S.R Temperature - 600°C - 650°C

Rate of heating from 300°C- 210°C / Hour

Soaking Time ( Minimum ) - 65 Minutes

Rate of cooling upto 400°C- 270°C / Hour

Further cooling in still air.

REFER PLANT STANDARD HY0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	4



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102184803	10.09.2025				
Type	WBS Element	Customer / Project Name	Part No				
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg	17511313				
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501296	00		21750501296-00	HP HEATER -8A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	118,460.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0001	L	31750102843-00	17511002						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : BUNDLE DETAILS				Reservation :	Item : 0001	Picklist:			
				0015816194					

0002	L	31750102849-0T	17511119						
		30	1.000	EA	0.000	0.000	0.000		ST06
Material Description : SHELL ASSEMBLY -HPH-8A/B				Reservation :	Item : 0002	Picklist:			
				0015816194					

0003	L	31750102850-00	17511156						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY FOR HPH 8A				Reservation :	Item : 0003	Picklist:			
				0015816194					

0004	L	31750102833-00	17511179						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSEMBLY				Reservation :	Item : 0004	Picklist:			
				0015816194					

0005	L	31750501168-00B	17511205						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation :	Item : 0005	Picklist:			
				0015816194					

0006	L	HU9712514412	17511216						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation :	Item : 0006	Picklist:			
				0015816194					

0007	L	41750103693-00	17511217						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL TRUNNION ASSLY				Reservation :	Item : 0007	Picklist:			
				0015816194					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102184803	10.09.2025				
Type	WBS Element	Customer / Project Name	Part No				
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg	17511313				
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501296	00		21750501296-00	HIP HEATER -8A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	118,460.000		Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.
0009	L	41750103679-00	17511222						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT(HIP-8A/B)			Reservation :	Item : 0008	Picklist:				
			0015816194						

0010	L	41750103692-00	17511233						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY			Reservation :	Item : 0009	Picklist:				
			0015816194						

0011	L	HE9791003068	17511242						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS			Reservation :	Item : 0010	Picklist:				
			0015816194						

0012	L	HE9791003033	17511243						
HE91003		11.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS			Reservation :	Item : 0011	Picklist:				
			0015816194						

0013	L	HE9791003017	17511244						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS			Reservation :	Item : 0012	Picklist:				
			0015816194						

0014	L	HE9791003025	17511245						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)			Reservation :	Item : 0013	Picklist:				
			0015816194						

0015	L	HY7246761284	17511246						
HY7246761		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : CS BLIND FLANGE 3" # 600 RF			Reservation :	Item : 0014	Picklist:				
			0015816194						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs.
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102184803	10.09.2025
Type	WBS Element	Customer / Project Name	
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501296	00		21750501296-00
Name Of The Part			Part No
HP HEATER -8A ASSEMBLY			17511313
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	
IS06	118,460.000		
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0016	L	HY7142198192	17511247							
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M20X130				Reservation :	Item : 0015	Picklist:1000721542				
				0015816194						

0017	L	HY7240366065	17511248						
HY7240366		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 3"#600 GRPH				Reservation :	Item : 0016	Picklist:			
				0015816194					

0018	L	41750103696-00A	17511249						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY				Reservation :	Item : 0017	Picklist:			
				0015816194					

0019	L	HE9711344483	17511257	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH8AB S1 NOZ				Reservation :	Item : 0018	Picklist:			
				0015816194					

0020	L	HE9711344491	17511258	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH8AB S2 NOZ				Reservation :	Item : 0019	Picklist:			
				0015816194					

0021	L	HE9711344505	17511259	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH8AB S3 NOZ				Reservation :	Item : 0020	Picklist:			
				0015816194					

0022	L	21750501296-21	17511260						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation :	Item : 0021	Picklist:			
				0015816194					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102184803	10.09.2025
Type		WBS Element		Customer / Project Name	
		P-1032281700-17511		1x800 MW NTPC Sipat EPC Pkg	
Drawing No.-Var		E.Rev.		T.Rev	
21750501296		00		21750501296-00	
				Name Of The Part	
				HP HEATER -8A ASSEMBLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	118,460.000
Remarks					MDCC
					Yes

### BOM Details

Pos.No	IC	Material Code		P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0023	L	41750103694-00		17511262						
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHIPPING CAP FOR T1 & T2				Reservation :	Item : 0022		Picklist:			
				0015816194						

0024	L	41750501004-00		17511267					
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation :	Item : 0023		Picklist:		
				0015816194					

0025	L	41750102806-00		17511280					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation :	Item : 0024		Picklist:		
				0015816194					

0026	L	31750100182-00		17511285					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH				Reservation :	Item : 0025		Picklist:		
				0015816194					

0027	L	AA7124102219		17511287					
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : SCREW SLT CHS A P M5X25-4.8				Reservation :	Item : 0026		Picklist:1000721542		
				0015816194					

0028	L	41750101376-00		17511288					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET				Reservation :	Item : 0027		Picklist:		
				0015816194					

0029	L	HE9715674097		17511293					
NA		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQUID LEVEL NAME PLATE				Reservation :	Item : 0028		Picklist:		
				0015816194					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102184803	10.09.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg	17511313
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501296	00		21750501296-00
Name Of The Part			
HP HEATER -8A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			St.
			1806
			Nt.Wt.
			118.460.000
Remarks			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0030	L	HE9711344513	17511294	MA by QC						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPH8AB S11 NOZ				Reservation :		Item : 0029		Picklist:		
				0015816194						

0098	L	31750100343-0A	17511295						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE 219.I				Reservation :		Item : 0030		Picklist:	
				0015816194					

0108	L	TC9756368039	17511999						
TC56368-03		350.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SS STUD WITH TWO NUTS M20X140				Reservation :		Item : 0031		Picklist:1000737616	
				0015816194					

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-1032281700-17511:  
 PWHT Chart shall be approved by QC & CIB.  
 Support DC & DSH shrouds suitably to avoid deformation  
 S.R Temperature - 650 - 690°C  
 Rate of heating from 300°C- 55°C/Hour(Heating/Cooling-530 mm)  
 Soaking Time ( minimum ) - 175 Minutes(Soaking=70 mm)  
 Rate of cooling upto 400°C- 55°C / Hour  
 Further cooling in still air  
 REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6

**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No:

102184803

10.09.2025

Type

Work Order / PGMA

Customer

Part No

P-1032281700-17511/  
17511

1x800 MW NTPC Sipat HPC Pkg

17511313

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501296

00

21750501296-00

HP HEATER -8A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

118,460,000

## Operation Details

Opr No

W.C.

Plant

Cl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

## Sub Operation Text

cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102184803	10.09.2025
Type	WBS Element	Customer / Project Name	
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501296	00		21750501296-00
Name Of The Part			Part No
HP HEATER -8A ASSEMBLY			17511313
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	
IS06	118,460.000		
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Mat.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750102843-00	17511002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS				Reservation :	Item : 0001	Picklist:				
				0015816194						

0002	L	31750102849-0T	17511119						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSEMBLY -HPH-8A/B				Reservation :	Item : 0002	Picklist:			
				0015816194					

0003	L	31750102850-00	17511156						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY FOR HPH 8A				Reservation :	Item : 0003	Picklist:			
				0015816194					

0004	L	31750102833-00	17511179						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSEMBLY				Reservation :	Item : 0004	Picklist:			
				0015816194					

0005	L	31750501168-00B	17511205						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation :	Item : 0005	Picklist:			
				0015816194					

0006	L	HE9712514412	17511216						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation :	Item : 0006	Picklist:			
				0015816194					

0007	L	41750103693-00	17511217						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL TRUNNION ASSLY				Reservation :	Item : 0007	Picklist:			
				0015816194					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102184803	10.09.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg	17511313
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501296	00		21750501296-00
Name Of The Part			
HP HEATER -8A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			118.460.000
Remarks			MDCC
			Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0009	L	41750103679-00	17511222						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT(HPH-8A/B)				Reservation :	Item :	Picklist:			
				0015816194	0008				

0010	L	41750103692-00	17511233						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY				Reservation :	Item :	Picklist:			
				0015816194	0009				

0011	L	HE9791003068	17511242						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation :	Item :	Picklist:			
				0015816194	0010				

0012	L	HE9791003033	17511243						
HE91003		11.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation :	Item :	Picklist:			
				0015816194	0011				

0013	L	HE9791003017	17511244						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation :	Item :	Picklist:			
				0015816194	0012				

0014	L	HE9791003025	17511245						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation :	Item :	Picklist:			
				0015816194	0013				

0015	L	HY7246761284	17511246						
HY7246761		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : CS BLIND FLANGE 3" # 600 RF				Reservation :	Item :	Picklist:			
				0015816194	0014				

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	6



WORK CARD

TECHNOLOGICAL PROCESS  
RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102184803		10.09.2025	
Type		WBS Element		Customer / Project Name			Part No
		P-1032281700-17511		1x800 MW NTPC Sipat EPC Pkg			17511313
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501296		00		21750501296-00		HP HEATER -8A ASSEMBLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	118,460.000		Yes

BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0016	L	HY7142198192			17511247					
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M20X130					Reservation : 0015816194		Item : 0015		Picklist:1000721542	

0017	L	HY7240366065			17511248					
HY7240366		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : NAB M.S.W. GASKET SIZE 3"#600 GRPH					Reservation : 0015816194		Item : 0016		Picklist:	

0018	L	41750103696-00A			17511249					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : TEST COVER ASSEMBLY					Reservation : 0015816194		Item : 0017		Picklist:	

0019	L	HE9711344483			17511257	MA by QC				
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPH8AB S1 NOZ					Reservation : 0015816194		Item : 0018		Picklist:	

0020	L	HE9711344491			17511258	MA by QC				
HR51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPH8AB S2 NOZ					Reservation : 0015816194		Item : 0019		Picklist:	

0021	L	HE9711344505			17511259	MA by QC				
HR51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPH8AB S3 NOZ					Reservation : 0015816194		Item : 0020		Picklist:	

0022	L	21750501296-21			17511260					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : IDENTIFICATION RING					Reservation : 0015816194		Item : 0021		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102184803	10.09.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg	17511313
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501296	00		21750501296-00
Name Of The Part			
HIP HEATER -8A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	IS06	Nt.Wt.	118.460.000
Remarks			
MDCC	Yes		

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0023	L	41750103694-00	17511262							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHIPPING CAP FOR T1 & T2				Reservation :	Item : 0022	Picklist:				
				0015816194						

0024	L	417501004-00	17511267						
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation :	Item : 0023	Picklist:			
				0015816194					

0025	L	41750102806-00	17511280						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation :	Item : 0024	Picklist:			
				0015816194					

0026	L	31750100182-00	17511285						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH				Reservation :	Item : 0025	Picklist:			
				0015816194					

0027	L	AA7124102219	17511287						
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : SCREW SLT CHS A P M5X25-4.8				Reservation :	Item : 0026	Picklist: 1000721542			
				0015816194					

0028	L	41750101376-00	17511288						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET				Reservation :	Item : 0027	Picklist:			
				0015816194					

0029	L	HE9715674097	17511293						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE				Reservation :	Item : 0028	Picklist:			
				0015816194					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102184803	10.09.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032281700-17511	1x800 MW NTPC Sipat EPC Pkg			17511313		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501296	00		21750501296-00	HP HEATER -8A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	118,460.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0030	L	HE9711344513	17511294	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH8AB S11 NOZ				Reservation : 0015816194		Item : 0029		Picklist:	

0098	L	31750100343-0A	17511295						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE, 219.1				Reservation : 0015816194		Item : 0030		Picklist:	

0108	L	TC9756368039	17511999						
TC56368-03		350.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SS STUD WITH TWO NUTS M20X110				Reservation : 0015816194		Item : 0031		Picklist:1000737616	

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-1032281700-17511:

S.R Temperature -- 600 - 650°C

Rate of heating from 300°C -- 68°C / Hour(76 mm)

Soaking Time (Minimum) -- 130 Minutes(63 mm)

Rate of cooling upto 400°C --- 87°C / Hour

Further cooling in still air.

REFER PLANT STANDARD HY0640763 FOR S.R.

NOTE: Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6

**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No:

102184803

10.09.2025

Type

Work Order / PGMA

Customer

Part No

P-1032281700-17511/  
17511

1x800 MW NTPC Sipat EPC Pkg

17511313

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501296

00

21750501296-00

HP HEATER -8A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

118,460.000

## Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

Sub Operation Text

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No:

102185337

11.09.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281900-17523

1x800 MW NTPC Sipat EPC Pkg

17523304

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501298

00

21750501298-00

HP HEATER -9A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

105.470.000

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0001	L	31750102852-00	17523002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS				Reservation :	Item : 0001		Picklist:			
				0015819042						

0002	L	31750102858-0Y	17523115						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ASSEMBLY -HPH-9A/B				Reservation :	Item : 0002		Picklist:		
				0015819042					

0003	L	31750102859-00	17523148						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSEMBLY(HPH 9A)				Reservation :	Item : 0003		Picklist:		
				0015819042					

0004	L	31750102833-00	17523171						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSEMBLY				Reservation :	Item : 0004		Picklist:		
				0015819042					

0005	L	31750501168-00B	17523197						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation :	Item : 0005		Picklist:		
				0015819042					

0006	L	HE9712514412	17523208						
NA		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation :	Item : 0006		Picklist:		
				0015819042					

0007	L	41750103693-00	17523209						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL TRUNNION ASSLY				Reservation :	Item : 0007		Picklist:		
				0015819042					

Clkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:				102185337	11.09.2025
Type	WBS Element		Customer / Project Name			Part No	
	P-1032281900-17523		1x800 MW NTPC Sipat EPC Pkg			17523304	
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part		
21750501298	00		21750501298-00		HP HEATER -9A ASSEMBLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	105,470.000		Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0009	L	41750103697-00			17523214						IS06
			2.000	EA	0.000	0.000	0.000		0.000		
Material Description : STEEL ROLLER SUPPORT (HPH-9 A/B)					Reservation :	Item : 0008		Picklist:			
					0015819042						

0010	L	41750103692-00			17523225						IS06
			1.000	EA	0.000	0.000	0.000		0.000		
Material Description : C/JANNIL SUPPORT ASSLY					Reservation :	Item : 0009		Picklist:			
					0015819042						

0011	L	HE9791003068			17523234						ST06
HE91003			4.000	EA	0.000	0.000	0.000		0.000		
Material Description : 1 1/2" BAR PLUG CS					Reservation :	Item : 0010		Picklist:			
					0015819042						

0012	L	HE9791003033			17523235						ST06
HE91003			11.000	EA	0.000	0.000	0.000		0.000		
Material Description : 3/4" BAR PLUG CS					Reservation :	Item : 0011		Picklist:			
					0015819042						

0013	L	HE9791003017			17523236						ST06
HE91003			2.000	EA	0.000	0.000	0.000		0.000		
Material Description : 3/8" BAR PLUG CS					Reservation :	Item : 0012		Picklist:			
					0015819042						

0014	L	HE9791003025			17523237						ST06
HE91003			7.000	EA	0.000	0.000	0.000		0.000		
Material Description : 1/2" BAR PLUG CS (SA105)					Reservation :	Item : 0013		Picklist:			
					0015819042						

0015	L	HE9712294951			17523238						ST06
(FY7246761			1.000	EA	0.000	0.000	0.000		0.000		
Material Description : CS BLIND FLANGE 3"-900# RF					Reservation :	Item : 0014		Picklist:			
					0015819042						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102185337

11.09.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281900-17523

1x800 MW NTPC Sipat EPC Pkg

17523304

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501298

00

21750501298-00

HP HEATER -9A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

105.470.000

Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0016	L	HY7142198362	17523239							
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STD 2 NUTS M22X150				Reservation : 0015819042		Item : 0015		Picklist:1000719962		

0017	L	HY7240367061	17523240						
HY7240367		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 3" #900 GRPH				Reservation : 0015819042		Item : 0016		Picklist:	

0018	L	41750103696-00A	17523241						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY				Reservation : 0015819042		Item : 0017		Picklist:	

0019	L	HE9711344521	17523249	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH9AB S1 NOZ				Reservation : 0015819042		Item : 0018		Picklist:	

0020	L	HE9711344530	17523250	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH9AB S2 NOZ				Reservation : 0015819042		Item : 0019		Picklist:	

0022	L	21750501298-21	17523251						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation : 0015819042		Item : 0020		Picklist:	

0023	L	41750103694-00	17523253						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP FOR T1 & T2				Reservation : 0015819042		Item : 0021		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: F006		Equipment No:		102185337	11.09.2025	
Type	WBS Element	Customer / Project Name			Part No	
	P-1032281900-17523	1x800 MW NTPC Sipat EPC Pkg			17523304	
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part		
21750501298	00		21750501298-00	HP HEATER -9A ASSEMBLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	
	1.000	1.000	EA	IS06	105,470.000	
					Remarks	MDCC
						Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.	
0024	L	41750501004-00A			17523258						
			4.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)					Reservation :	Item : 0022		Picklist:			
					0015819042						

0025	L	41750102806-00			17523271					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER					Reservation :	Item : 0023		Picklist:		
					0015819042					

0026	L	31750100182-00			17523276					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH					Reservation :	Item : 0024		Picklist:		
					0015819042					

0027	L	AA7124102219			17523278					
AA7124102			6.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : SCREW SLT CHS A P M5X25-4.8					Reservation :	Item : 0025		Picklist:1000719962		
					0015819042					

0028	L	41750101376-00			17523279					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET					Reservation :	Item : 0026		Picklist:		
					0015819042					

0029	L	HE9715674097			17523284					
NA			1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE					Reservation :	Item : 0027		Picklist:		
					0015819042					

0030	L	HE9711344548			17523285	MA by QC				
HE51113-NA			1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPI19AB S11 NOZ					Reservation :	Item : 0028		Picklist:		
					0015819042					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5



RE-PRINT CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102185337	11.09.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032281900-17523	1x800 MW NTPC Sipal EPC Pkg	17523304
Drawing No.-Var	E.Rev	T.Rev	Material No.
21750501298	00		21750501298-00
Name Of The Part			
HP HEATER -9A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt
			105.470.000
Remarks			MDCC
			Yes

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0098	L	31750100343-0A	17523286						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE				Reservation :		Item : 0029		Picklist:	
219.1				0015819042					

0108	L	CPPA87352001	17523999						
TC66553-00		5.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : CS GATE VALVE 2" 150RF -LOCK OPEN				Reservation :		Item : 0030		Picklist:1000737651	
				0015819042					

#### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-1032281900-17523:  
 PWHT Chart shall be approved by QC & CIB.  
 Support DC & DSH shrouds suitably to avoid deformation  
 S.R Temperature - 650 - 690°C  
 Rate of heating from 300°C- 55°C/Hour(Heating/Cooling-530 mm)  
 Soaking Time ( minimum ) - 220 Minutes(Soaking=90 mm)  
 Rate of cooling upto 400°C- 55°C / Hour  
 Further cooling in still air  
 REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.  
Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102185337	11.09.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032281900-17523	1x800 MW NTPC Sipat EPC Pkg	17523304
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501298	00		21750501298-00
Name Of The Part			
HP HEATER -9A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			105.470.000
			Remarks
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750102852-00	17523002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS				Reservation : 0015819042		Item : 0001		Picklist:		

0002	L	31750102858-0Y	17523115						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ASSEMBLY -HPH-9A/B				Reservation : 0015819042		Item : 0002		Picklist:	

0003	L	31750102859-00	17523148						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSEMBLY(HPH 9A)				Reservation : 0015819042		Item : 0003		Picklist:	

0004	L	31750102833-00	17523171						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSEMBLY				Reservation : 0015819042		Item : 0004		Picklist:	

0005	L	31750501168-00B	17523197						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation : 0015819042		Item : 0005		Picklist:	

0006	L	HE9712514412	17523208						
NA		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation : 0015819042		Item : 0006		Picklist:	

0007	L	41750103693-00	17523209						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL TRUNNION ASSLY				Reservation : 0015819042		Item : 0007		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs.
	21.04.2026					1	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102185337

11.09.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281900-17523

1x800 MW NTPC Sipat EPC Pkg

17523304

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501298

00

21750501298-00

HP HEATER -9A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

105.470.000

Yes

## BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0009	L	41750103697-00	17523214							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT (HPH-9 A/B)				Reservation : 0015819042		Item : 0008		Picklist:		

0010	L	41750103692-00	17523225						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY				Reservation : 0015819042		Item : 0009		Picklist:	

0011	L	HE9791003068	17523234						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0015819042		Item : 0010		Picklist:	

0012	L	HE9791003033	17523235						
HE91003		11.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0015819042		Item : 0011		Picklist:	

0013	L	HE9791003017	17523236						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation : 0015819042		Item : 0012		Picklist:	

0014	L	HE9791003025	17523237						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0015819042		Item : 0013		Picklist:	

0015	L	HE9712294951	17523238						
HE97246761		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : CS BLIND FLANGE 3"-900# RF				Reservation : 0015819042		Item : 0014		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102185337	11.09.2025
Type	WBS Element	Customer / Project Name			Part No
	P-1032281900-17523	1x800 MW NTPC Sipat EPC Pkg			17523304
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750501298	00		21750501298-00	HP HEATER -9A ASSEMBLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	105.470.000
Remarks					MDCC
					Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0016	L	HY7142198362	17523239							
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M22X150				Reservation : 0015819042		Item : 0015		Picklist: 1000719962		

0017	L	HY7240367061	17523240						
HY7240367		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 3" #900 GRPH				Reservation : 0015819042		Item : 0016		Picklist:	

0018	L	41750103696-00A	17523241						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY				Reservation : 0015819042		Item : 0017		Picklist:	

0019	L	HE9711344521	17523249	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH9AB S1 NOZ				Reservation : 0015819042		Item : 0018		Picklist:	

0020	L	HE9711344530	17523250	MA by QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH9AB S2 NOZ				Reservation : 0015819042		Item : 0019		Picklist:	

0022	L	21750501298-21	17523251						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation : 0015819042		Item : 0020		Picklist:	

0023	L	41750103694-00	17523253						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP FOR '11 & 12				Reservation : 0015819042		Item : 0021		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs.
	21.04.2026					3	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102185337

11.09.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281900-17523

1x800 MW NTPC Sipat EPC Pkg

17523304

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501298

00

21750501298-00

HP HEATER -9A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

105,470.000

Ycs

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0024	L	41750501004-00A			17523258					
		4.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)					Reservation :	Item : 0022	Picklist:			
					0015819042					

0025	L	41750102806-00			17523271					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE HOLDER					Reservation :	Item : 0023	Picklist:			
					0015819042					

0026	L	31750100182-00			17523276					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR HPH					Reservation :	Item : 0024	Picklist:			
					0015819042					

0027	L	AA7124102219			17523278					
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : SCREW SET CHS A P M5X25-4.8					Reservation :	Item : 0025	Picklist:1000719962			
					0015819042					

0028	L	41750101376-00			17523279					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : LIQ.LVL PLATE BRACKET					Reservation :	Item : 0026	Picklist:			
					0015819042					

0029	L	11E9715674097			17523284					
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : LIQUID LEVEL NAME PLATE					Reservation :	Item : 0027	Picklist:			
					0015819042					

0030	L	11E9711344548			17523285	MA by QC				
11E51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER HPM19AB S11 NOZ					Reservation :	Item : 0028	Picklist:			
					0015819042					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No:

102185337

11.09.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281900-17523

1x800 MW NTPC Sipat EPC Pkg

17523304

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501298

00

21750501298-00

HP HEATER -9A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

SL

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

105,470.000

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0098	L	31750100343-0A	17523286						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE 219.1				Reservation : 0015819042		Item : 0029		Picklist:	

0108	L	CPPA87352001	17523999						
TC66553-00		5.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : CS GATE VALVE 2" 150RF -LOCK OPEN 219.1				Reservation : 0015819042		Item : 0030		Picklist:1000737651	

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-1032281900-17523:

S.R Temperature - 600°C - 650°C

Rate of heating from 300°- 56°C / Hour(Heating/Cooling-90 mm)

Soaking Time ( Minimum ) - 150 Minutes ( Soaking-90 mm )

Rate of cooling upto 400°C- 72°C / Hour

Further cooling in still air.

REFER PLANT STANDARD HY0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	Part No
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66	17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
Name Of The Part			
HP HEATER-6 ASSLY(RRVUNL-660MW)			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			97,000.000
Remarks			MDCC
			No

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750102236-00A	17505002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : TUBE BUNDLE DETAILS FOR HPH-6			Reservation :	Item : 0001		Picklist:				
			0016081057							

0002	L	31750102971-00	17505114						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSEMBLY-HPH 6			Reservation :	Item : 0002		Picklist:			
			0016081057						

0003	L	31750102972-00	17505154						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY FOR UPH-6			Reservation :	Item : 0003		Picklist:			
			0016081057						

0004	L	31750102245-00A	17505178						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSLY(FOR HPHs-6,7,8)			Reservation :	Item : 0004		Picklist:			
			0016081057						

0005	L	31750102246-00A	17505207						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS(FOR HPHs-6,7,8)			Reservation :	Item : 0005		Picklist:			
			0016081057						

0006	L	HE9712514412	17505218						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)			Reservation :	Item : 0006		Picklist:			
			0016081057						

0007	L	41750103047-01	17505219						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : PIPE FOR CHNL. TRUNNION			Reservation :	Item : 0007		Picklist:			
			0016081057						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

102218939

13.02.2026

Plant: P006

Equipment No:

Type

WBS Element

Customer / Project Name

Part No

P-5032227801-17505

RVUNL SURATGARH TPS UNIT 7 &amp; 8 2x66

17505001

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101736

00

21750101736-00

HP HEATER-6 ASSLY(RRVUNL-660MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

97.000.000

No

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0008	L	41750103047-02	17505221							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : END PLATE (FOR CHNL. TRUNNION)				Reservation : 0016081057		Item : 0008		Picklist:		

0009	L	41750103052-00	17505223						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT (FOR HPH-6)				Reservation : 0016081057		Item : 0009		Picklist:	

0010	L	41750103045-00	17505234						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT (FOR HPHs-6,7,8)				Reservation : 0016081057		Item : 0010		Picklist:	

0011	L	HE9791003068	17505243						
HE91003		5.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0016081057		Item : 0011		Picklist:	

0012	L	HE9791003033	17505244						
HE91003		9.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0016081057		Item : 0012		Picklist:	

0013	L	HE9791003017	17505245						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation : 0016081057		Item : 0013		Picklist:	

0014	L	HE9791003025	17505246						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0016081057		Item : 0014		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No.of Pgs.
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	Part No
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66	17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
			Name Of The Part
			HP HEATER-6 ASSLY(RRVUNL-660MW)
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			97,000.000
			Remarks
			No
			MDCC
			No

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Mat.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	HY7246772103	17505247	MA BY QC						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : FLANGE BLIND CS 4" CL 300 RAISED FACE			Reservation : 0016081057		Item : 0015		Picklist:			

0016	L	HY7142198184	17505248						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M20X120			Reservation : 0016081057		Item : 0016		Picklist:1000734483		

0017	L	HY7240363074	17505249						
HY7240363		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 PTFE			Reservation : 0016081057		Item : 0017		Picklist:		

0018	L	41750103046-00A	17505250						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER FOR T1/T2			Reservation : 0016081057		Item : 0018		Picklist:		

0019	L	HE9711344696	17505252						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER FOR S1 NOZZLE			Reservation : 0016081057		Item : 0019		Picklist:		

0020	L	HE9711344700	17505253						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER FOR S2 NOZZLE			Reservation : 0016081057		Item : 0020		Picklist:		

0021	L	HE9711344726	17505254						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER FOR S11 NOZZLE			Reservation : 0016081057		Item : 0021		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixe / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

102218939

13.02.2026

Plant: P006

Equipment No:

Type

WBS Element

Customer / Project Name

Part No

P-5032227801-17505

RVUNL SURATGARH TPS UNIT 7 &amp; 8 2x66

17505001

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101736

00

21750101736-00

HP HEATER-6 ASSLY(RRVUNL-660MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

97,000.000

No

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0022	L	41750501004-00A			17505255					
		4.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)					Reservation : 0016081057	Item : 0022		Picklist:		

0023	L	41750102806-00			17505268					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE HOLDER					Reservation : 0016081057	Item : 0023		Picklist:		

0024	L	31750100182-00			17505273					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR HPH					Reservation : 0016081057	Item : 0024		Picklist:		

0025	L	AA7124102219			17505275					
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : SCREW SLT CHS A P M5X25-4.8					Reservation : 0016081057	Item : 0025		Picklist:		

0026	L	41750101376-00			17505276					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : LIQ.LVL. PLATE BRACKET					Reservation : 0016081057	Item : 0026		Picklist:		

0027	L	HE9715674097			17505281					
NA		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : LIQUID LEVEL NAME PLATE					Reservation : 0016081057	Item : 0027		Picklist:		

0028	L	41750103060-00			17505282					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHIPPING CAP FOR TU/12 (HPHs-6,7,8)					Reservation : 0016081057	Item : 0028		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	Part No
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66	17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
Name Of The Part			
HP HEATER-6 ASSLY(RRVUNL-660MW)			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			97.000.000
Remarks			MDCC
			No

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.	
0029	L	21750101736-29	17505289							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : IDENTIFICATION RING				Reservation :	Item : 0029	Picklist:				
				0016081057						

0030	L	HE9711344718	17505291						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER FOR S3 NOZZLE				Reservation :	Item : 0030	Picklist:			
				0016081057					

0031	L	31750100343-0A	17505292						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE 219.1				Reservation :	Item : 0031	Picklist:			
				0016081057					

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.	PRT Description						
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-5032227801-17505:  
 PWHT Chart shall be approved by QC& CIB.  
 Support DC & DSH shrouds suitably to avoid deformation  
 S.R Temperature - 650 - 690°C  
 Rate of heating from 300°C- 55°C/Hour(Heating/Cooling-525 mm)  
 Soaking Time ( minimum ) - 155 Minutes(Soaking=63 mm)  
 Rate of cooling upto 400°C- 55°C / Hour  
 Further cooling in still air  
 REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs.
	21.04.2026					5	6

**TECHNOLOGICAL PROCESS**

Production Order

Date

102218939

13.02.2026

Plant:P006

Equipment No:

Type

Work Order / PGMA

Customer

Part No

P-5032227801-17505/  
17505

RVUNL SURATGARH TPS UNIT 7 &amp; 8 2x66

17505001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750101736

00

21750101736-00

JIP HEATER-6 ASSLY(RRVUNL-660MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

97,000.000

**Operation Details**

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

**Sub Operation Text**

cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No.of Pgs
	21.04.2026					6	6



WHITE CARD

TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	Part No
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66	17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
Name Of The Part			
HP HEATER-6 ASSLY(RRVUNL-660MW)			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			97.000.000
Remarks			MBCC
			No

BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Mat.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0001	L	31750102236-00A	17505002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : TUBE BUNDLE DETAILS FOR HPH-6				Reservation :	Item : 0001	Picklist:				
				0016081057						

0002	L	31750102971-00	17505114						
		30	1.000	EA	0.000	0.000	0.000	0.000	ST06
Material Description : SHELL ASSEMBLY-HPH 6				Reservation :	Item : 0002	Picklist:			
				0016081057					

0003	L	31750102972-00	17505154						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY FOR HPH-6				Reservation :	Item : 0003	Picklist:			
				0016081057					

0004	L	31750102245-00A	17505178						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSLY(FOR HPHs-6,7,8)				Reservation :	Item : 0004	Picklist:			
				0016081057					

0005	L	31750102246-00A	17505207						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS(FOR HPHs-6,7,8)				Reservation :	Item : 0005	Picklist:			
				0016081057					

0006	L	HE9712514412	17505218						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation :	Item : 0006	Picklist:			
				0016081057					

0007	L	41750103047-01	17505219						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : PIPE FOR CHNL. TRUNNION				Reservation :	Item : 0007	Picklist:			
				0016081057					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102218939	13.02.2026		
Type	WBS Element	Customer / Project Name			Part No		
	P-5032227801-17505	RVUNI. SURATGARH TPS UNIT 7 & 8 2x66			17505001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750101736	00		21750101736-00	HP HEATER-6 ASSLY(RRVUNL-660MW)			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	97,000.000		No

### BOM Details

Pos.No	IC	Material Code		P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0008	L	41750103047-02		17505221					
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : END PLATE (FOR CHNL. TRUNNION)				Reservation :	Item : 0008		Picklist:		
				0016081057					

0009	L	41750103052-00		17505223					
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT (FOR HPH-6)				Reservation :	Item : 0009		Picklist:		
				0016081057					

0010	L	41750103045-00		17505234					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT (FOR HPHs-6,7,8)				Reservation :	Item : 0010		Picklist:		
				0016081057					

0011	L	HE9791003068		17505243					
HE91003		5.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation :	Item : 0011		Picklist:		
				0016081057					

0012	L	HE9791003033		17505244					
HE91003		9.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation :	Item : 0012		Picklist:		
				0016081057					

0013	L	HE9791003017		17505245					
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation :	Item : 0013		Picklist:		
				0016081057					

0014	L	HE9791003025		17505246					
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation :	Item : 0014		Picklist:		
				0016081057					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	5



DATE CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

102218939

13.02.2026

Plant: P006

Equipment No:

Customer / Project Name

Part No

Type

WBS Element

P-5032227801-17505

RVUNL SURATGARH TPS UNIT 7 & 8 2x66

17505001

Name Of The Part

Drawing No.-Var

E.Rev.

T.Rev

Material No.

HP HEATER-6 ASSLY(RRVUNL-660MW)

21750101736

00

21750101736-00

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

97.000.000

No

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	HY7246772103	17505247	MA BY QC						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : FLANGE BLIND CS 4" CL. 300 RAISED FACE				Reservation : 0016081057	Item : 0015		Picklist:			

0016	L	HY7142198184	17505248						ST41
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	
Material Description : STUD 2 NUTS M20X120				Reservation : 0016081057	Item : 0016		Picklist:1000734483		

0017	L	HY7240363074	17505249						ST06
HY7240363		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : NAB M.S.W. GASKET SIZE 4" #300 PTFE				Reservation : 0016081057	Item : 0017		Picklist:		

0018	L	41750103046-00A	17505250						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER FOR T1/T2				Reservation : 0016081057	Item : 0018		Picklist:		

0019	L	HE9711344696	17505252						ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER FOR S1 NOZZLE				Reservation : 0016081057	Item : 0019		Picklist:		

0020	L	HE9711344700	17505253						ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER FOR S2 NOZZLE				Reservation : 0016081057	Item : 0020		Picklist:		

0021	L	HE9711344726	17505254						ST06
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : TEST COVER FOR S11 NOZZLE				Reservation : 0016081057	Item : 0021		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No.of Pgs
	21.04.2026					3	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order      Date

Plant: P006		Equipment No:			102218939		13.02.2026		
Type		WBS Element		Customer / Project Name				Part No	
		P-5032227801-17505		RVUNL SURATGARH TPS UNIT 7 & 8 2x66				17505001	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part			
21750101736		00		21750101736-00		HP HEATER-6 ASSLY(RRVUNL-660MW)			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks			MDCC
	1.000	1.000	EA	IS06	97.000.000				No

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0022	L	41750501004-00A		17505255						
		4.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation : 0016081057		Item : 0022		Picklist:		

0023	L	41750102806-00		17505268					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation : 0016081057		Item : 0023		Picklist:	

0024	L	31750100182-00		17505273					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH				Reservation : 0016081057		Item : 0024		Picklist:	

0025	L	AA7124102219		17505275					
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : SCREW SLT CHS A P M5X25-4.8				Reservation : 0016081057		Item : 0025		Picklist:	

0026	L	41750101376-00		17505276					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET				Reservation : 0016081057		Item : 0026		Picklist:	

0027	L	HE9715674097		17505281					
NA		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQUID LEVEL NAME PLATE				Reservation : 0016081057		Item : 0027		Picklist:	

0028	L	41750103060-00		17505282					
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP FOR T1/T2 (HP1Is-6,7,8)				Reservation : 0016081057		Item : 0028		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No:		102218939	13.02.2026
Type	WBS Element	Customer / Project Name			Part No
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66			17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part	
21750101736	00		21750101736-00	HP HEATER-6 ASSLY(RRVUNL-660MW)	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.
	1.000	1.000	EA	IS06	97.000.000
					MDCC
					No

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0029	L	21750101736-29	17505289						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation :	Item : 0029		Picklist:		
				0016081057					

0030	L	HE9711344718	17505291						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER FOR S3 NOZZLE				Reservation :	Item : 0030		Picklist:		
				0016081057					

0031	L	31750100343-0A	17505292						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE				Reservation :	Item : 0031		Picklist:		
219.1				0016081057					

### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-5032227801-17505:

S.R Temperature - 600°C - 650°C

Rate of heating from 300°- 69°C / Hour(Heating/Cooling-75 mm)

Soaking Time ( Minimum )- 80 Minutes ( Soaking-32 mm )

Rate of cooling upto 400°C- 88°C / Hour

Further cooling in still air.

REFER PLANT STANDARD HY0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Flxr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					5	5



DATE CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order      Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
Name Of The Part			Part No
HP HEATER-6 ASSLY(RRVUNL-660MW)			17505001
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	IS06	Nt.Wt.	97.000.000
Remarks			MDCC
			No

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0001	L	31750102236-00A	17505002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : TUBE BUNDLE DETAILS FOR HPH-6				Reservation :	Item : 0001		Picklist:			
				0016081057						

0002	L	31750102971-00	17505114						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSEMBLY-HPH 6				Reservation :	Item : 0002		Picklist:		
				0016081057					

0003	L	31750102972-00	17505154						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY FOR HPH-6				Reservation :	Item : 0003		Picklist:		
				0016081057					

0004	L	31750102245-00A	17505178						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSLY(FOR HPHs-6,7,8)				Reservation :	Item : 0004		Picklist:		
				0016081057					

0005	L	31750102246-00A	17505207						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS(FOR HPHs-6,7,8)				Reservation :	Item : 0005		Picklist:		
				0016081057					

0006	L	HE97125144J2	17505218						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation :	Item : 0006		Picklist:		
				0016081057					

0007	L	41750103047-01	17505219						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : PIPE FOR CHNL. TRUNNION				Reservation :	Item : 0007		Picklist:		
				0016081057					

Chkd. By	Dt.	ECR/ Rev No	DL	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order      Date

Plant: P006		Equipment No:			102218939	13.02.2026
Type	WBS Element	Customer / Project Name			Part No	
P-5032227801-17505		RVUNL SURATGARH TPS UNIT 7 & 8 2x66			17505001	
Drawing No.-Var	E.Rev.	T.Rev	Material No.		Name Of The Part	
21750101736	00		21750101736-00		HP HEATER-6 ASSLY(RRVUNL-660MW)	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks
	1.000	1.000	EA	IS06	97.000.000	
						MDCC No

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.			
0008	L	41750103047-02			17505221							
		2.000	EA	0.000	0.000	0.000				0.000	IS06	
Material Description : END PLATE (FOR CHNL. TRUNNION)					Reservation :	Item :	Picklist:					
					0016081057	0008						

0009	L	41750103052-00			17505223							
		2.000	EA	0.000	0.000	0.000				0.000	IS06	
Material Description : SHELL ROLLER SUPPORT (FOR HPH-6)					Reservation :	Item :	Picklist:					
					0016081057	0009						

0010	L	41750103045-00			17505234							
		1.000	EA	0.000	0.000	0.000				0.000	IS06	
Material Description : CHANNEL SUPPORT (FOR HPHs-6,7,8)					Reservation :	Item :	Picklist:					
					0016081057	0010						

0011	L	HE9791003068			17505243							
HE91003		5.000	EA	0.000	0.000	0.000				0.000	ST06	
Material Description : 1 1/2" BAR PLUG CS					Reservation :	Item :	Picklist:					
					0016081057	0011						

0012	L	HE9791003033			17505244							
HE91003		9.000	EA	0.000	0.000	0.000				0.000	ST06	
Material Description : 3/4" BAR PLUG CS					Reservation :	Item :	Picklist:					
					0016081057	0012						

0013	L	HE9791003017			17505245							
HE91003		2.000	EA	0.000	0.000	0.000				0.000	ST06	
Material Description : 3/8" BAR PLUG CS					Reservation :	Item :	Picklist:					
					0016081057	0013						

0014	L	HE9791003025			17505246							
HE91003		7.000	EA	0.000	0.000	0.000				0.000	ST06	
Material Description : 1/2" BAR PLUG CS (SA105)					Reservation :	Item :	Picklist:					
					0016081057	0014						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	6



TECHNOLOGICAL PROCESS  
RE-PRINT

Production Order

Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	Part No
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66	17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
Name Of The Part			
HP HEATER-6 ASSLY(RRVUNL-660MW)			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	MDCC
IS06	97.000.000		No

BOM Details

Pos.No	IC	Material Code	P.No	Remarks
Matl.Spec	SPK	Qty	MU	Size 1
Size 2	Size 3	Formula Key	MPes	St.
0015	L	HY7246772103	17505247	MA BY QC
HY7246772-02		1.000	EA	0.000
				0.000
				0.000
Material Description : FLANGE BLIND CS 4" CL. 300 RAISED FACE		Reservation :	Item : 0015	Picklist:
		0016081057		

0016	L	HY7142198184	17505248	
HY7142198-04		8.000	EA	0.000
				0.000
				0.000
Material Description : STUD 2 NUTS M20X120		Reservation :	Item : 0016	Picklist:1400734483
		0016081057		

0017	L	HY7240363074	17505249	
HY7240363		1.000	EA	0.000
				0.000
				0.000
Material Description : NAB M.S.W. GASKET SIZE 4" #300 PTFE		Reservation :	Item : 0017	Picklist:
		0016081057		

0018	L	41750103046-00A	17505250	
		2.000	EA	0.000
				0.000
				0.000
Material Description : TEST COVER FOR T1/T2		Reservation :	Item : 0018	Picklist:
		0016081057		

0019	L	HE9711344696	17505252	
HE51113-NA		1.000	EA	0.000
				0.000
				0.000
Material Description : TEST COVER FOR S1 NOZZLE		Reservation :	Item : 0019	Picklist:
		0016081057		

0020	L	HE9711344700	17505253	
HE51113-NA		1.000	EA	0.000
				0.000
				0.000
Material Description : TEST COVER FOR S2 NOZZLE		Reservation :	Item : 0020	Picklist:
		0016081057		

0021	L	HE9711344726	17505254	
HE51113-NA		1.000	EA	0.000
				0.000
				0.000
Material Description : TEST COVER FOR S11 NOZZLE		Reservation :	Item : 0021	Picklist:
		0016081057		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	Part No
	P-5032227801-17505	RVUNL SURATGARH TPS UNIT 7 & 8 2x66	17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
			Name Of The Part
			HP HEATER-6 ASSLY(RRVUNL-660MW)
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			St.
			1S06
			Nt.Wt.
			97,000.000
			Remarks
			MDCC
			No

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0022	L	41750501004-00A	17505255						
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation :	Item :	Picklist:			
				0016081057	0022				

0023	L	41750102806-00	17505268						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation :	Item :	Picklist:			
				0016081057	0023				

0024	L	31750100182-00	17505273						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH				Reservation :	Item :	Picklist:			
				0016081057	0024				

0025	L	AA7124102219	17505275						
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : SCREW SLT CHS A P M5X25-4.8				Reservation :	Item :	Picklist:			
				0016081057	0025				

0026	L	41750101376-00	17505276						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL PLATE BRACKET				Reservation :	Item :	Picklist:			
				0016081057	0026				

0027	L	HE9715674097	17505281						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE				Reservation :	Item :	Picklist:			
				0016081057	0027				

0028	L	41750103060-00	17505282						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP FOR F1/T2 (HPHs-6,7,8)				Reservation :	Item :	Picklist:			
				0016081057	0028				

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No:	102218939	13.02.2026
Type	WBS Element	Customer / Project Name	Part No
	P-5032227801-17505	RVUNL SURATGARH IPS UNIT 7 & 8 2x66	17505001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101736	00		21750101736-00
Name Of The Part			
HP HEATER-6 ASSLY(RRVUNL-660MW)			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	MDCC
IS06	97,000.000		No

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks
Matl.Spec	SPK	Qty	MU	Size 1
0029	L	21750101736-29	17505289	
		2.000	EA	0.000
				0.000
				0.000
Material Description : IDENTIFICATION RING			Reservation :	Item : 0029
			0016081057	Picklist:

Pos.No	IC	Material Code	P.No	Remarks
Matl.Spec	SPK	Qty	MU	Size 1
0030	L	HE9711344718	17505291	
HE51113-NA		1.000	EA	0.000
				0.000
				0.000
Material Description : TEST COVER FOR S3 NOZZLE			Reservation :	Item : 0030
			0016081057	Picklist:

Pos.No	IC	Material Code	P.No	Remarks
Matl.Spec	SPK	Qty	MU	Size 1
0031	L	31750100343-0A	17505292	
		1.000	EA	0.000
				0.000
				0.000
Material Description : NITROGEN BLANKETING DETAILS PIPE			Reservation :	Item : 0031
219.1			0016081057	Picklist:

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0013	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Hemi head Assly PWHT P-5032227801-17505:

PWHT chart shall be approved by QC,CIB.

S.R Temperature - 600°C to 650°C

Rate of Heating from 300°C- 55°C/Hour.(Heating/Cooling-170)

Soaking Time ( Minimum ) - 195 Minutes.(Soaking=170 min )

Rate of Cooling upto 400°C - 55°C/Hour.

Further cooling in still air

NOTE : Thermocouples are to be placed close to weld joints

REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

If single hemi head is loaded then two thermocouples shall be placed on the hemi head, one at hemi head to manway nozzle weld joint and one at T1/T2 nozzle to hemi head joint. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No.of Pgs
	21.04.2026					5	6



### TECHNOLOGICAL PROCESS

Production Order

Date .

Plant:P006

Equipment No:

102218939

13.02.2026

Type

Work Order / PGMA

Customer

Part No

P-5032227801-17505/  
17505

RVUNL SURATGARH TPS UNIT 7 &amp; 8 2x66

17505001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750101736

00

21750101736-00

IIP HEATER-6 ASSLY(RRVUNL-660MW)

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

97,000.000

## Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

## Sub Operation Text

cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order      Date

Plant: P006	Equipment No:	102180396	02.08.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032281500-17509	1x800 MW NTPC Sipat EPC Pkg	17509311
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101725	00		21750101725-00
Name Of The Part			
HP HEATER -7A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.	Remarks	MDCC
IS06	82.830.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
MatLSpec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0001	L	31750102835-00	17509002						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : BUNDLE DETAILS(HPH-7A/B)				Reservation :	Item : 0001	Picklist:			
				0015766550					

0002	L	31750102841-0S	17509117						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSEMBLY -HPH-7A/B				Reservation :	Item : 0002	Picklist:			
				0015766550					

0003	L	31750102842-00	17509154						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY FOR HPH 7A/B				Reservation :	Item : 0003	Picklist:			
				0015766550					

0004	L	31750102833-00	17509177						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSEMBLY				Reservation :	Item : 0004	Picklist:			
				0015766550					

0005	L	31750501168-00B	17509203						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation :	Item : 0005	Picklist:			
				0015766550					

0006	L	HE9712514412	17509214						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation :	Item : 0006	Picklist:			
				0015766550					

0007	L	41750103693-00	17509215						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL TRUNNION ASSLY				Reservation :	Item : 0007	Picklist:			
				0015766550					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	Nu.of Pgs
	21.04.2026					1	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281500-17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

82.830.000

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Mat.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0009	L	41750103676-00	17509220							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT(HPH-7A/B)				Reservation : 0015766550		Item : 0008		Picklist:		

0010	L	41750103692-00	17509231						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY				Reservation : 0015766550		Item : 0009		Picklist:	

0011	L	HE9791003068	17509240						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0015766550		Item : 0010		Picklist:	

0012	L	HE9791003033	17509241						
HE91003		11.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0015766550		Item : 0011		Picklist:1000723539	

0013	L	HE9791003017	17509242						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation : 0015766550		Item : 0012		Picklist:	

0014	L	HE9791003025	17509243						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0015766550		Item : 0013		Picklist:	

0015	L	HY7246772103	17509244						
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BLIND CS 4" CL 300 RAISED FACE				Reservation : 0015766550		Item : 0014		Picklist:1000719962	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order      Date

Plant: P006	Equipment No:	102180396	02.08.2025
Type:	WBS Element	Customer / Project Name	Part No
	P-1032281500-17509	1x800 MW NTPC Sipat EPC Pkg	17509311
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101725	00		21750101725-00
Name Of The Part			
HP HEATER -7A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			82.830.000
Remarks			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0016	L	HY7142198184	17509245						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M20X120			Reservation :	Item : 0015		Picklist:1000719962			
			0015766550						

0017	L	HY7240365077	17509246						
HY7240365		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 GRPH			Reservation :	Item : 0016		Picklist:			
			0015766550						

0018	L	41750103696-00A	17509247						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY			Reservation :	Item : 0017		Picklist:			
			0015766550						

0019	L	HE9711344440	17509255	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S1 NOZZ			Reservation :	Item : 0018		Picklist:			
			0015766550						

0020	L	HE9711344459	17509256	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S2 NOZ			Reservation :	Item : 0019		Picklist:			
			0015766550						

0021	L	HE9711344467	17509257	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S3 NOZ			Reservation :	Item : 0020		Picklist:			
			0015766550						

0022	L	21750101725-21	17509258						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING			Reservation :	Item : 0021		Picklist:			
			0015766550						

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281500-17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

82.830.000

Ycs

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0023	L	41750103694-00	17509260						IS06
		2.000	EA	0.000	0.000	0.000		0.000	
Material Description : SHIPPING CAP FOR T1 & T2				Reservation :	Item : 0022	Picklist:			
				0015766550					

0024	L	41750501004-00A	17509265						IS06
		4.000	EA	0.000	0.000	0.000		0.000	
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation :	Item : 0023	Picklist:			
				0015766550					

0025	L	41750102806-00	17509278						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : NAME PLATE HOLDER				Reservation :	Item : 0024	Picklist:			
				0015766550					

0026	L	31750100182-00	17509283						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : NAME PLATE FOR HPH				Reservation :	Item : 0025	Picklist:			
				0015766550					

0027	L	AA7124102219	17509285						ST41
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	
Material Description : SCREW SLT CHS A P M5X25-4.8				Reservation :	Item : 0026	Picklist:1000721542			
				0015766550					

0028	L	41750101376-00	17509286						IS06
		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : LIQ.LVL PLATE BRACKET				Reservation :	Item : 0027	Picklist:			
				0015766550					

0029	L	HE9715674097	17509291						ST06
NA		1.000	EA	0.000	0.000	0.000		0.000	
Material Description : LIQUID LEVEL NAME PLATE				Reservation :	Item : 0028	Picklist:			
				0015766550					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order      Date

Plant: P006	Equipment No:	102180396	02.08.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032281500-17509	1x800 MW NTPC Sipat EPC Pkg	17509311
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101725	00		21750101725-00
Name Of The Part			
HP HEATER -7A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			82.830.000
Remarks			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0030	L	HE9711344475	17509292	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HP47AB S11 NOZ				Reservation :	Item : 0029	Picklist:			
				0015766550					

0098	L	31750100343-0A	17509293						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE 219.1				Reservation :	Item : 0030	Picklist:			
				0015766550					

0108	L	HY7246375724	17509999						
HY7246375		20.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : FLANGE 2" SCH 40S ANSI 300 WNRFS				Reservation :	Item : 0031	Picklist:1000737616			
				0015766550					

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Skirt Assly PWHT P-1032281500-17509:  
 PWHT Chart shall be approved by QC & CIB.  
 Support DC & DSH shrouds suitably to avoid deformation  
 S.R Temperature - 650 - 690°C  
 Rate of heating from 300°C- 55°C/Hour(Heating/Cooling-530 mm)  
 Soaking Time ( minimum ) - 115 Minutes(Soaking-45 mm)  
 Rate of cooling upto 400°C- 55°C / Hour  
 Further cooling in still air  
 REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6

**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No:

102180396

02.08.2025

Type

Work Order / PGMA

Customer

Part No

P-1032281500-17509/  
17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

I.Rev.

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

82,830.000

## Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

## Sub Operation Text

cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWIT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order      Date

Plant: P006	Equipment No:	102180396	02.08.2025
Type	WBS Element	Customer / Project Name	
	P-1032281500-17509	Lx800 MW NTPC Sipat EPC Pkg	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101725	00		21750101725-00
Name Of The Part			Part No
HP HEATER -7A ASSEMBLY			17509311
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	Nt.Wt.		Remarks
IS06	82,830.000		
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750102835-00			17509002					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS(HPH-7A/B)					Reservation :	Item : 0001	Picklist:			
					0015766550					

0002	L	31750102841-0S			17509117					
		30	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ASSEMBLY -HPH-7A/B					Reservation :	Item : 0002	Picklist:			
					0015766550					

0003	L	31750102842-00			17509154					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SKIRT ASSLY FOR HPH 7A/B					Reservation :	Item : 0003	Picklist:			
					0015766550					

0004	L	31750102833-00			17509177					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : HEMIHEAD ASSEMBLY					Reservation :	Item : 0004	Picklist:			
					0015766550					

0005	L	31750501168-00D			17509203					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)					Reservation :	Item : 0005	Picklist:			
					0015766550					

0006	L	HE9712514412			17509214					
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : MANWAY GASKET SS(SPIRAL WOUND)					Reservation :	Item : 0006	Picklist:			
					0015766550					

0007	L	41750103693-00			17509215					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : CHANNEL TRUNNION ASSLY					Reservation :	Item : 0007	Picklist:			
					0015766550					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	Nu.of Pgs
	21.04.2026					1	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281500-17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

F.Rev.

T.Rev

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

82,830.000

Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0009	L	41750103676-00	17509220							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT(HPH-7A/B)				Reservation : 0015766550		Item : 0008		Picklist:		

0010	L	41750103692-00	17509231						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL SUPPORT ASSLY				Reservation : 0015766550		Item : 0009		Picklist:	

0011	L	HE9791003068	17509240						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0015766550		Item : 0010		Picklist:	

0012	L	HE9791003033	17509241						
HE91003		11.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation : 0015766550		Item : 0011		Picklist:1000723539	

0013	L	HE9791003017	17509242						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation : 0015766550		Item : 0012		Picklist:	

0014	L	HE9791003025	17509243						
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0015766550		Item : 0013		Picklist:	

0015	L	11Y7246772103	17509244						
11Y7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : FLANGE BOUND CS 4" CL 300 RAISED FACE				Reservation : 0015766550		Item : 0014		Picklist:1000719962	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plar	Rate Fixr / Tool Plar	Pg no	No.of Pgs
	21.04.2026					2	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order      Date

Plant: P006	Equipment No:	102180396	02.08.2025
Type	WBS Element	Customer / Project Name	
	P-1032281500-17509	1x800 MW NTPC Sipat EPC Pkg	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101725	00		21750101725-00
Name Of The Part			Part No
HP HEATER -7A ASSEMBLY			17509311
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	IS06	Nt.Wt.	82.830.000
Remarks			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0016	L	HY7142198184	17509245						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M20X120				Reservation :	Item : 0015	Picklist:1000719962			
				0015766550					

0017	L	HY7240365077	17509246						
HY7240365		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 GRPH				Reservation :	Item : 0016	Picklist:			
				0015766550					

0018	L	41750103696-00A	17509247						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY				Reservation :	Item : 0017	Picklist:			
				0015766550					

0019	L	HE9711344440	17509255	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S1 NOZZ				Reservation :	Item : 0018	Picklist:			
				0015766550					

0020	L	HE9711344459	17509256	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S2 NOZ				Reservation :	Item : 0019	Picklist:			
				0015766550					

0021	L	HE9711344467	17509257	QC,					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S3 NOZ				Reservation :	Item : 0020	Picklist:			
				0015766550					

0022	L	21750101725-21	17509258						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation :	Item : 0021	Picklist:			
				0015766550					

Chkd. By	DL	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No:		102180396		02.08.2025			
Type		WBS Element		Customer / Project Name		Part No			
		P-1032281500-17509		1x800 MW NTPC Sipat EPC Pkg		17509311			
Drawing No.-Var		E.Rev.		T.Rev		Material No.		Name Of The Part	
21750101725		00				21750101725-00		HP HEATER -7A ASSEMBLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks			MDCC
	1.000	1.000	EA	IS06	82.830.000				Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0023	L	41750103694-00			17509260					IS06
		2.000	EA	0.000	0.000	0.000		0.000		
Material Description : SHIPPING CAP FOR T1 & T2					Reservation : 0015766550		Item : 0022		Picklist:	

0024	L	41750501004-00A			17509265					IS06
		4.000	EA	0.000	0.000	0.000		0.000		
Material Description : ROLLER ASSLY. (Dia 460. 100 Thk.)					Reservation : 0015766550		Item : 0023		Picklist:	

0025	L	41750102806-00			17509278					IS06
		1.000	EA	0.000	0.000	0.000		0.000		
Material Description : NAME PLATE HOLDER					Reservation : 0015766550		Item : 0024		Picklist:	

0026	L	31750100182-00			17509283					IS06
		1.000	EA	0.000	0.000	0.000		0.000		
Material Description : NAME PLATE FOR HPH					Reservation : 0015766550		Item : 0025		Picklist:	

0027	L	AA7124102219			17509285					ST41
AA7124102		6.000	EA	0.000	0.000	0.000		0.000		
Material Description : SCREW SLT CHS A P M5X25-4.8					Reservation : 0015766550		Item : 0026		Picklist:1000721542	

0028	L	41750101376-00			17509286					IS06
		1.000	EA	0.000	0.000	0.000		0.000		
Material Description : LIQ.LVL. PLATE BRACKET					Reservation : 0015766550		Item : 0027		Picklist:	

0029	L	11E9715674097			17509291					ST06
NA		1.000	EA	0.000	0.000	0.000		0.000		
Material Description : LIQUID LEVEL NAME PLATE					Reservation : 0015766550		Item : 0028		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order      Date

Plant: P006		Equipment No:		102180396	02.08.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032281500-17509	1x800 MW NTPC Sipat EPC Pkg			17509311		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750101725	00		21750101725-00	HP HEATER -7A ASSEMBLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	82,830.000		Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0030	L	HE9711344475		17509292	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : TEST COVER IHPH7AB S11 NOZ				Reservation :	Item : 0029	Picklist:				
				0015766550						

0098	L	31750100343-0A		17509293					
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE 219.1				Reservation :	Item : 0030	Picklist:			
				0015766550					

0108	L	HY7246375724		17509999					
HY7246375		20.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : FLANGE 2" SCH 40S ANSI 300 WNRF SS				Reservation :	Item : 0031	Picklist:1000737616			
				0015766550					

### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
Sub Operation Text								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-1032281500-17509:

S.R Temperature --- 600 - 650°C

Rate of heating from 300°C --- 95°C / Hour (55 mm)

Soaking Time (Minimum) --- 80 Minutes(32 mm)

Rate of cooling upto 400°C --- 122°C / Hour

Further cooling in still air.

REFER PLANT STANDARD HY0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-scan. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6



### TECHNOLOGICAL PROCESS

Production Order

Date

Plant:P006

Equipment No:

102180396

02.08.2025

Type

Work Order / PGMA

Customer

Part No

P-1032281500-17509/  
17509

1x800 MW NTPC Sipal EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

1506

82.830.000

#### Operation Details

Opr No

W.C.

Plant

Cd. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

#### Sub Operation Text

Send the assembly to 06-shop, BHEL, Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281500-17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

82.830.000

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0001	L	31750102835-00	17509002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE DETAILS(HPH-7A/B)				Reservation : 0015766550		Item : 0001		Picklist:		

0002	L	31750102841-0S	17509117						
		30	EA	0.000	0.000	0.000		0.000	ST06
Material Description : SHELL ASSEMBLY -HPH-7A/B				Reservation : 0015766550		Item : 0002		Picklist:	

0003	L	31750102842-00	17509154						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY FOR HPH 7A/B				Reservation : 0015766550		Item : 0003		Picklist:	

0004	L	31750102833-00	17509177						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSEMBLY				Reservation : 0015766550		Item : 0004		Picklist:	

0005	L	31750501168-00B	17509203						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY DETAILS (FOR HPHs 800 MW)				Reservation : 0015766550		Item : 0005		Picklist:	

0006	L	HE9712514412	17509214						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : MANWAY GASKET SS(SPIRAL WOUND)				Reservation : 0015766550		Item : 0006		Picklist:	

0007	L	41750103693-00	17509215						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CHANNEL TRUNNION ASSLY				Reservation : 0015766550		Item : 0007		Picklist:	

Chkd. By	Dt	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					1	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281500-17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

82.830.000

Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0009	L	41750103676-00			17509220					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT(HPH-7A/B)				Reservation : 0015766550		Item : 0008		Picklist:		

0010	L	41750103692-00			17509231					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : CHANNEL SUPPORT ASSLY				Reservation : 0015766550		Item : 0009		Picklist:		

0011	L	HE9791003068			17509240					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1 1/2" BAR PLUG CS				Reservation : 0015766550		Item : 0010		Picklist:		

0012	L	HE9791003033			17509241					
HE91003		11.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/4" BAR PLUG CS				Reservation : 0015766550		Item : 0011		Picklist:1000723539		

0013	L	HE9791003017			17509242					
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/8" BAR PLUG CS				Reservation : 0015766550		Item : 0012		Picklist:		

0014	L	HE9791003025			17509243					
HE91003		7.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation : 0015766550		Item : 0013		Picklist:		

0015	L	HY7246772103			17509244					
HY7246772-02		1.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : FLANGE BLIND CS 4" CL. 300 RAISED FACE				Reservation : 0015766550		Item : 0014		Picklist:1000719962		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	6



CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281500-17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101725

(0)

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

82.830.000

Yes

#### BOM Details

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0016	L	HY7142198184	17509245						
HY7142198-04		8.000	EA	0.000	0.000	0.000		0.000	ST11
Material Description : STUD 2 NUTS M20X120				Reservation : 0015766550	Item : 0015	Picklist: 1000719962			

0017	L	HY7240365077	17509246						
HY7240365		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 4" #300 GRPH				Reservation : 0015766550	Item : 0016	Picklist:			

0018	L	41750103696-00A	17509247						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY				Reservation : 0015766550	Item : 0017	Picklist:			

0019	L	HE9711344440	17509255	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S1 NOZZ				Reservation : 0015766550	Item : 0018	Picklist:			

0020	L	HE9711344459	17509256	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S2 NOZ				Reservation : 0015766550	Item : 0019	Picklist:			

0021	L	HE9711344467	17509257	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HPH7AB S3 NOZ				Reservation : 0015766550	Item : 0020	Picklist:			

0022	L	21750101725-21	17509258						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation : 0015766550	Item : 0021	Picklist:			

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	6



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032281500-17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

82,830.000

Yes

### BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0023	L	41750103694-00	17509260							
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHIPPING CAP FOR T1 & T2				Reservation : 0015766550		Item : 0022		Picklist:		

0024	L	41750501004-00A	17509265						
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSLY. (Dia 460, 100 Thk.)				Reservation : 0015766550		Item : 0023		Picklist:	

0025	L	41750102806-00	17509278						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation : 0015766550		Item : 0024		Picklist:	

0026	L	31750100182-00	17509283						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HP11				Reservation : 0015766550		Item : 0025		Picklist:	

0027	L	AA7124102219	17509285						
AA7124102		6.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : SCREW SLT CHS A P M5X25-4.8				Reservation : 0015766550		Item : 0026		Picklist: 1000721542	

0028	L	41750101376-00	17509286						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : LIQ.LVL. PLATE BRACKET				Reservation : 0015766550		Item : 0027		Picklist:	

0029	L	HE9715674097	17509291						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : LIQUID LEVEL NAME PLATE				Reservation : 0015766550		Item : 0028		Picklist:	

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	6



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order      Date

Plant: P006	Equipment No:	102180396	02.08.2025
Type	WBS Element	Customer / Project Name	
	P-1032281500-17509	1x800 MW NTPC Sipat EPC Pkg	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750101725	00		21750101725-00
Name Of The Part			Part No
HP HEATER -7A ASSEMBLY			17509311
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			82,830.000
Remarks			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0030	L	HE9711344475	17509292	QC					
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER HP117AB S11 NOZ				Reservation :	Item :	Picklist:			
				0015766550	0029				

0098	L	31750100343-0A	17509293						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS PIPE				Reservation :	Item :	Picklist:			
219.1				0015766550	0030				

0108	L	HY7246375724	17509999						
HY7246375		20.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : FLANGE 2" SCH 40S ANSI 300 WNRF SS				Reservation :	Item :	Picklist:			
				0015766550	0031	1000737616			

**Operation Details**

Opr No	W.C.	Plant	Ctrl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.		PRT Description					
0013	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Hemi head Assly PWHT P-1032281500-17509:  
 S.R Temperature - 600°C to 650°C  
 Rate of Heating from 300°C- 55°C/Hour.(Heating/Cooling-210)  
 Soaking Time ( Minimum ) - 200 Minutes.(Soaking=172 mm )  
 Rate of Cooling upto 400°C - 55°C/Hour.

Further cooling in still air

NOTE : Thermocouples are to be placed close to weld joints  
 REFER PLANT STANDARD NO. HY 0640763 FOR S.R

If single hemi head is loaded then two thermocouples shall be placed on the hemi head, one at hemi head to manway nozzle weld joint and one at T1/T2 nozzle to hemi head joint. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	6



### TECHNOLOGICAL PROCESS

Production Order

Date

Plant: P006

Equipment No:

102180396

02.08.2025

Type

Work Order / PGMA

Customer

Part No

P-1032281500-17509/  
17509

1x800 MW NTPC Sipat EPC Pkg

17509311

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750101725

00

21750101725-00

HP HEATER -7A ASSEMBLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

82.830.000

## Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

## Sub Operation Text

Dispatch clearance shall be issued by BHEL QC only after PWIT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL, Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					6	6



TECHNOLOGICAL PROCESS  
RE-PRINT

TECHNOLOGICAL PROCESS  
RE-PRINT

Production Order

Date

Plant: P006	Equipment No: HEI42953	102193312	25.10.2025
Type	WBS Element	Customer / Project Name	
	P-1032284300-17521	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501322-00	01		21750501322-00
Name Of The Part			Part No
DESUPERHEATER 7A MAIN ASSLY			17521001
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	IS06	Nt.Wt.	31,400.000
Remarks			MDCC
			Yes

BOM Details

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPes	St.	
0001	L	31750501145-TBS	17521002							
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE ASSLY FOR DSH 7A/B T/S BAF SPA MC				Reservation :	Item : 0001	Picklist:				
				0015883532						

0002	L	31750501561-00A	17521041						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ASSLY DSH 7A/B (NOZZ MC)				Reservation :	Item : 0002	Picklist:			
				0015883532					

0003	L	31750501609-00	17521064						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SKIRT ASSLY DSH 8A/B (NOZZ MC) LIFTING L				Reservation :	Item : 0003	Picklist:			
				0015883532					

0004	L	31750501151-01A	17521080						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : HEMIHEAD ASSLY DSH 7A/B (NOZZ MC)				Reservation :	Item : 0004	Picklist:			
				0015883532					

0005	L	31750501156-00A	17521106						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : MANWAY ASSLY				Reservation :	Item : 0005	Picklist:			
				0015883532					

0006	L	HE9812514015	17521117						
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : I/A OBOUND GASKET FOR MANWAY				Reservation :	Item : 0006	Picklist:			
				0015883532					

0007	L	41750501236-00	17521118						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHELL ROLLER SUPPORT FOR DESUPERHEATER				Reservation :	Item : 0007	Picklist:			
				0015883532					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No: HEH2953		102193312		25.10.2025	
Type		WBS Element		Customer / Project Name			Part No
		P-1032284300-17521		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17521001
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501322-00		01		21750501322-00		DESUPERHEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
1.000	1.000	EA	IS06	31.400.000			Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.			
0008	L	41750501538-00			17521129							
		1.000	EA	0.000	0.000	0.000				0.000	IS06	
Material Description : CHANNEL SUPPORT ASSLY FOR DESUPERHEATER					Reservation : 0015883532		Item : 0008		Picklist:			

0009	L	HE9791003033			17521140						
HE91003		10.000	EA	0.000	0.000	0.000				0.000	ST06
Material Description : 3/4" BAR PLUG CS					Reservation : 0015883532		Item : 0009		Picklist:		

0010	L	HE9791003017			17521141						
HE91003		2.000	EA	0.000	0.000	0.000				0.000	ST06
Material Description : 3/8" BAR PLUG CS					Reservation : 0015883532		Item : 0010		Picklist:		

0011	L	HE9791003025			17521142						
HE91003		5.000	EA	0.000	0.000	0.000				0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)					Reservation : 0015883532		Item : 0011		Picklist:		

0012	L	HE9791003068			17521143						
HE91003		4.000	EA	0.000	0.000	0.000				0.000	ST06
Material Description : 1 1/2" BAR PLUG CS					Reservation : 0015883532		Item : 0012		Picklist:		

0013	L	HY7246762124			17521144						
HY7246762		1.000	EA	0.000	0.000	0.000				0.000	ST06
Material Description : AS BLIND FLANGE 6"CT.600 RF (A182GRF11)					Reservation : 0015883532		Item : 0013		Picklist:		

0014	L	HY7142198680			17521145						
HY7142198-04		12.000	EA	0.000	0.000	0.000				0.000	ST41
Material Description : STUD 2 NUTS M27X180					Reservation : 0015883532		Item : 0014		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006

Equipment No: HEH2953

102193312

25.10.2025

Type

WBS Element

Customer / Project Name

Part No

P-1032284300-17521

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17521001

Drawing No.-Var

E.Rev.

T.Rev

Material No.

Name Of The Part

21750501322-00

01

21750501322-00

DESUPERHEATER 7A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

MDCC

1.000

1.000

EA

IS06

31.400.000

Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0015	L	HY7240366081	17521146							
HY7240366		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : NAB M.S.W. GASKET SIZE 6" #600 GRPH				Reservation : 0015883532	Item : 0015		Picklist:			

0016	L	41750501521-00B	17521147						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY T1/T2				Reservation : 0015883532	Item : 0016		Picklist:		

0017	L	HE9711343258	17521155						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER DSH7AB S1 NOZZ				Reservation : 0015883532	Item : 0017		Picklist:		

0018	L	HE9711343266	17521156						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER DSH7AB S2 NOZZ				Reservation : 0015883532	Item : 0018		Picklist:		

0019	L	21750501276-01	17521157						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation : 0015883532	Item : 0019		Picklist:		

0020	L	41750102161-00	17521159						
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSEMBLY (Dia 380, 90 Thk.)				Reservation : 0015883532	Item : 0020		Picklist:		

0021	L	41750102806-00	17521172						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation : 0015883532	Item : 0021		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plur	Rate Fixr / Tool Plur	Pg no	No. of Pgs
	21.04.2026					3	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order      Date

Plant: P006		Equipment No: HEH2953			102193312		25.10.2025		
Type		WBS Element		Customer / Project Name				Part No	
		P-1032284300-17521		ANUPPUR THERMAL ENERGY (MP) PRIVATE				17521001	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part			
21750501322-00		01		21750501322-00		DESUPERHEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks			MDCC
	1.000	1.000	EA	IS06	31,400.000				Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0022	L	31750100182-00			17521177					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAME PLATE FOR 13PH					Reservation : 0015883532	Item : 0022		Picklist:		

0023	L	AA7174006035			17521179					
AA7174006		4.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : RIVET 4X12-CU FLAT CSK					Reservation : 0015883532	Item : 0023		Picklist:		

0024	L	41750501522-00			17521180					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHIPPING CAP FOR T1 & T2					Reservation : 0015883532	Item : 0024		Picklist:		

0040	L	31750100343-00			17521187					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NITROGEN BLANKETING DETAILS					Reservation : 0015883532	Item : 0025		Picklist:		

0050	L	TC9756557176			17521999					
TC56557-17		20.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : FLANGE 3" 300 WNRF S10S SS182F316L+IGC					Reservation : 0015883532	Item : 0026		Picklist:1000737653		

### Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0011	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	
Skirt Assly PWHT P-1032284300-17521; PWHT Chart shall be approved by QC & CIB.								
S.R. Temperature      --650°C - 690°C Rate of Heating from 300°C-- 55°C/Hour (Heating/Cooling-440mm) Soaking Time Minimum      -- 115 Minutes.(Soaking-45 mm)								

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5

**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant: P006

Equipment No: HEH2953

102193312

25.10.2025

Type

Work Order / PGMA

Customer

Part No

P-1032284300-17521/  
17521

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17521001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501322-00

01

21750501322-00

DESUPERHEATER 7A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

31,400.000

## Operation Details

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				

## Sub Operation Text

Rate of cooling upto 400°C-- 55°C/Hour.

Further cooling in still air.

REFER PLANT STANDARD HY 0640763.

NOTE : Thermocouples are to be placed close to weld joints. Contd.

If single skirt assembly is loaded then two thermocouples shall be placed on the skirt to tube sheet joint, one at 0 deg. and another at 180 deg. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHF chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No: HEH2953		102193312		25.10.2025	
Type		WBS Element		Customer / Project Name			Part No
		P-1032284300-17521		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17521001
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501322-00		01		21750501322-00		DESUPERHEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	31.400.000		Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks					
Matl.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750501145-TBS			17521002						
			1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE ASSLY FOR DSH 7AB T/S BAF SPA MC					Reservation : 0015883532		Item : 0001		Picklist:		
0002	L	31750501561-00A			17521041						
			1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ASSLY DSH 7A/B (NOZZ MC)					Reservation : 0015883532		Item : 0002		Picklist:		
0003	L	31750501609-00			17521064						
			1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SKIRT ASSLY DSH 8A/B (NOZZ MC) LIFTING L					Reservation : 0015883532		Item : 0003		Picklist:		
0004	L	31750501151-01A			17521080						
			1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : HEMIHEAD ASSLY DSH 7A/B (NOZZ MC)					Reservation : 0015883532		Item : 0004		Picklist:		
0005	L	31750501156-00A			17521106						
			1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : MANWAY ASSLY					Reservation : 0015883532		Item : 0005		Picklist:		
0006	L	HE9812514015			17521117						
NA			1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : IJA OBROUND GASKET FOR MANWAY					Reservation : 0015883532		Item : 0006		Picklist:		
0007	L	41750501236-00			17521118						
			2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT FOR DESUPERHEATER					Reservation : 0015883532		Item : 0007		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No: HEH2953		102193312	25.10.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032284300-17521	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17521001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501322-00	01		21750501322-00	DESUPERHEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	31,400.000		Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.	
0008	L	41750501538-00			17521129					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : CHANNEL SUPPORT ASSLY FOR DESUPERHEATER					Reservation :	Item : 0008	Picklist:			
					0015883532					

0009	L	HE9791003033			17521140					
HE91003		10.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/4" BAR PLUG CS					Reservation :	Item : 0009	Picklist:			
					0015883532					

0010	L	HE9791003017			17521141					
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 3/8" BAR PLUG CS					Reservation :	Item : 0010	Picklist:			
					0015883532					

0011	L	HE9791003025			17521142					
HE91003		5.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1/2" BAR PLUG CS (SA105)					Reservation :	Item : 0011	Picklist:			
					0015883532					

0012	L	HE9791003068			17521143					
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : 1 1/2" BAR PLUG CS					Reservation :	Item : 0012	Picklist:			
					0015883532					

0013	L	HY7246762124			17521144					
HY7246762		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : AS BLIND FLANGE 6"CL600 RF (A182GRF11)					Reservation :	Item : 0013	Picklist:			
					0015883532					

0014	L	HY7142198680			17521145					
HY7142198-04		12.000	EA	0.000	0.000	0.000		0.000	ST41	
Material Description : STUD 2 NUTS M27X180					Reservation :	Item : 0014	Picklist:			
					0015883532					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					2	5



## TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No: HUH2953			102193312		25.10.2025	
Type		WBS Element		Customer / Project Name			Part No	
		P-1032284300-17521		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17521001	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part		
21750501322-00		01		21750501322-00		DESUPERHEATER 7A MAIN ASSLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks		MDCC
	1.000	1.000	EA	IS06	31,400.000			Yes

### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0015	L	HY7240366081			17521146					
HY7240366			1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : NAB M.S.W. GASKET SIZE 6"X600 GRPH					Reservation :		Item : 0015		Picklist:	
					0015883532					

0016	L	41750501521-00B			17521147					
			2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY T1/T2					Reservation :		Item : 0016		Picklist:	
					0015883532					

0017	L	HE9711343258			17521155					
HE51113-NA			1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER DSH7AB S1 NOZZ					Reservation :		Item : 0017		Picklist:	
					0015883532					

0018	L	HE9711343266			17521156					
HE51113-NA			1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : TEST COVER DSH7AB S2 NOZZ					Reservation :		Item : 0018		Picklist:	
					0015883532					

0019	L	21750501276-01			17521157					
			2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING					Reservation :		Item : 0019		Picklist:	
					0015883532					

0020	L	41750102161-00			17521159					
			4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSEMBLY (Dia 380. 90 Thk.)					Reservation :		Item : 0020		Picklist:	
					0015883532					

0021	L	41750102806-00			17521172					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER					Reservation :		Item : 0021		Picklist:	
					0015883532					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No. of Pgs
	21.04.2026					3	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No: JU112953				102193312	25.10.2025
Type		WBS Element		Customer / Project Name		Part No	
		P-1032284300-17521		ANUPPUR THERMAL ENERGY (MP) PRIVATE		17521001	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part	
21750501322-00		01		21750501322-00		DESUPERHEATER 7A MAIN ASSLY	
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	31,400.000		Yes

**BOM Details**

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec		SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.
0022	L	31750100182-00			17521177					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH					Reservation :	Item : 0022	Picklist:			
					0015883532					

0023	L	AA7174006035			17521179					
AA7174006			4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : RIVET 4X12-CU FLAT CSK					Reservation :	Item : 0023	Picklist:			
					0015883532					

0024	L	41750501522-00			17521180					
			2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP FOR T1 & T2					Reservation :	Item : 0024	Picklist:			
					0015883532					

0040	L	31750100343-00			17521187					
			1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS					Reservation :	Item : 0025	Picklist:			
					0015883532					

0050	L	TC9756557176			17521999					
TC56557-17			20.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : FLANGE 3" 300 WNRFS10S SS182F316L+IGC					Reservation :	Item : 0026	Picklist: 1000737653			
					0015883532					

**Operation Details**

Opr No	W.C.	Plant	Ctrl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
<b>Sub Operation Text</b>								
0012	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Shell Assy PWHT P-1032284300-17521:  
 PWHT Chart shall be approved by QC & CTB.  
 S.R Temperature - 650°C - 690°C  
 Rate of heating from 300°- 80°C / Hour(Heating/Cooling-65 mm)  
 Soaking Time ( Minimum ) - 115 Minutes ( Soaking-45 mm )  
 Rate of cooling upto 400°C-102°C / Hour

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5



### TECHNOLOGICAL PROCESS

Production Order

Date

Plant:P006

Equipment No: HEH2953

102193312

25.10.2025

Type

Work Order / PGMA

Customer

Part No

P-1032284300-17521/  
17521

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17521001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501322-00

01

21750501322-00

DESUPERHEATER 7A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

31.400.000

#### Operation Details

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ FC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

#### Sub Operation Text

Further cooling in still air.

REFER PLANT STANDARD I1Y0640763 FOR S.R.

NOTE : Thermocouples are to be placed close to weld joints.

If single shell is loaded then three couples shall be placed on the shell, one each at C-seam. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

SAP PRINT  
RE-PRINT

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plor	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	5



TECHNICAL CARD

### TECHNOLOGICAL PROCESS RE-PRINT

Production Order

Date

Plant: P006		Equipment No: HEH2953			102193312		25.10.2025	
Type		WBS Element		Customer / Project Name			Part No	
		P-1032284300-17521		ANUPPUR THERMAL ENERGY (MP) PRIVATE			17521001	
Drawing No.-Var		E.Rev.	T.Rev	Material No.		Name Of The Part		
21750501322-00		01		21750501322-00		DESUPERHEATER 7A MAIN ASSLY		
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks		MDCC
	1.000	1.000	EA	IS06	31,400.000			Yes

#### BOM Details

Pos.No	IC	Material Code			P.No	Remarks				
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPcs	St.	
0001	L	31750501145-TBS			17521002					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : BUNDLE ASSLY FOR DSH 7AB 1/S BAF SPA MC				Reservation : 0015883532		Item : 0001		Picklist:		

0002	L	31750501561-00A			17521041					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ASSLY DSH 7A/B (NOZZ MC)				Reservation : 0015883532		Item : 0002		Picklist:		

0003	L	31750501609-00			17521064					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SKIRT ASSLY DSH 8A/B (NOZZ MC) LIFTING L				Reservation : 0015883532		Item : 0003		Picklist:		

0004	L	31750501151-01A			17521080					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : HEMIHEAD ASSLY DSH 7A/B (NOZZ MC)				Reservation : 0015883532		Item : 0004		Picklist:		

0005	L	31750501156-00A			17521106					
		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : MANWAY ASSLY				Reservation : 0015883532		Item : 0005		Picklist:		

0006	L	HE9812514015			17521117					
NA		1.000	EA	0.000	0.000	0.000		0.000	ST06	
Material Description : IJA OBROND GASKET FOR MANWAY				Reservation : 0015883532		Item : 0006		Picklist:		

0007	L	41750501236-00			17521118					
		2.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : SHELL ROLLER SUPPORT FOR DESUPERHEATER				Reservation : 0015883532		Item : 0007		Picklist:		

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					1	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006		Equipment No: HEH2953		102193312	25.10.2025		
Type	WBS Element	Customer / Project Name			Part No		
	P-1032284300-17521	ANUPPUR THERMAL ENERGY (MP) PRIVATE			17521001		
Drawing No.-Var	E.Rev.	T.Rev	Material No.	Name Of The Part			
21750501322-00	01		21750501322-00	DESUPERHEATER 7A MAIN ASSLY			
Pos.No	BOM Qty	Ord Qty	MU	St.	Nt.Wt.	Remarks	MDCC
	1.000	1.000	EA	IS06	31,400.000		Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.
0008	L	41750501538-00	17521129						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : CIANNEL SUPPORT ASSLY FOR DESUPERHEATER				Reservation :	Item : 0008	Picklist:			
				0015883532					

0009	L	HE9791003033	17521140						
HE91003		10.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/4" BAR PLUG CS				Reservation :	Item : 0009	Picklist:			
				0015883532					

0010	L	HE9791003017	17521141						
HE91003		2.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 3/8" BAR PLUG CS				Reservation :	Item : 0010	Picklist:			
				0015883532					

0011	L	HE9791003025	17521142						
HE91003		5.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1/2" BAR PLUG CS (SA105)				Reservation :	Item : 0011	Picklist:			
				0015883532					

0012	L	HE9791003068	17521143						
HE91003		4.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : 1 1/2" BAR PLUG CS				Reservation :	Item : 0012	Picklist:			
				0015883532					

0013	L	HY7246762124	17521144						
HY7246762		1.000	EA	0.000	0.000	0.000		0.000	ST06
Material Description : AS BLIND FLANGE 6"CL.600 RF (A182GRF11)				Reservation :	Item : 0013	Picklist:			
				0015883532					

0014	L	HY7142198680	17521145						
HY7142198-04		12.000	EA	0.000	0.000	0.000		0.000	ST41
Material Description : STUD 2 NUTS M27X180				Reservation :	Item : 0014	Picklist:			
				0015883532					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					2	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No: IIFH2953	102193312	25.10.2025
Type	WBS Element	Customer / Project Name	
	P-1032284300-17521	ANUPPUR THERMAL ENERGY (MP) PRIVATE	
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501322-00	01		21750501322-00
Name Of The Part			Part No
DESUPERHEATER 7A MAIN ASSLY			17521001
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
St.	IS06	Nt.Wt.	31,400.000
Remarks			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks						
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St.	
0015	L	HY7240366081	17521146							
HY7240366		1.000	EA	0.000	0.000	0.000		0.000	IS06	
Material Description : NAB M.S.W. GASKET SIZE 6"#600 GRPH				Reservation :	Item : 0015	Picklist:				
				0015883532						

0016	L	41750501521-00B	17521147						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER ASSEMBLY T1/T2				Reservation :	Item : 0016	Picklist:			
				0015883532					

0017	L	HE9711343258	17521155						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER DSH7AB S1 NOZZ				Reservation :	Item : 0017	Picklist:			
				0015883532					

0018	L	HE9711343266	17521156						
HE51113-NA		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : TEST COVER DSH7AB S2 NOZZ				Reservation :	Item : 0018	Picklist:			
				0015883532					

0019	L	21750501276-01	17521157						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : IDENTIFICATION RING				Reservation :	Item : 0019	Picklist:			
				0015883532					

0020	L	41750102161-00	17521159						
		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : ROLLER ASSEMBLY (Dia 380, 90 Thk.)				Reservation :	Item : 0020	Picklist:			
				0015883532					

0021	L	41750102806-00	17521172						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE HOLDER				Reservation :	Item : 0021	Picklist:			
				0015883532					

Chkd. By	Dt.	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					3	5



**TECHNOLOGICAL PROCESS  
RE-PRINT**

Production Order

Date

Plant: P006	Equipment No: HEH2953	102193312	25.10.2025
Type	WBS Element	Customer / Project Name	Part No
	P-1032284300-17521	ANUPPUR THERMAL ENERGY (MP) PRIVATE	17521001
Drawing No.-Var	E.Rev.	T.Rev	Material No.
21750501322-00	01		21750501322-00
			Name Of The Part
			DESUPERHEATER 7A MAIN ASSLY
Pos.No	BOM Qty	Ord Qty	MU
	1.000	1.000	EA
			IS06
			Nt.Wt.
			31,400.000
			Remarks
			MDCC
			Yes

**BOM Details**

Pos.No	IC	Material Code	P.No	Remarks					
Matl.Spec	SPK	Qty	MU	Size 1	Size 2	Size 3	Formula Key	MPCs	St
0022	L	31750100182-00	17521177						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NAME PLATE FOR HPH				Reservation :	Item : 0022	Picklist:			
				0015883532					

0023	L	AA7174006035	17521179						
AA7174006		4.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : RIVET 4X12-CU FLAT CSK				Reservation :	Item : 0023	Picklist:			
				0015883532					

0024	L	41750501522-00	17521180						
		2.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : SHIPPING CAP FOR T1 & T2				Reservation :	Item : 0024	Picklist:			
				0015883532					

0040	L	31750100343-00	17521187						
		1.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : NITROGEN BLANKETING DETAILS				Reservation :	Item : 0025	Picklist:			
				0015883532					

0050	L	TC9756557176	17521999						
TC56557-17		20.000	EA	0.000	0.000	0.000		0.000	IS06
Material Description : FLANGE 3" 300 WNRF S10S SS182F316L-HGC				Reservation :	Item : 0026	Picklist:1000737653			
				0015883532					

**Operation Details**

Opr No	W.C.	Plant	Ctl. ky	Prep Time	Time/ PC(M)	Time/ PC(L)	Total Time	QC Signature
PRT Cat	PRT No.			PRT Description				
Sub Operation Text								
0013	DA9995	P006	ZP04	0.000	0.000	0.000	0.000	

Hemi head Assly PWHT P-1032284300-17521:  
 S.R Temperature - 600°C to 650°C  
 Rate of Heating from 300°C - 55°C/Hour.(Heating/Cooling-150)  
 Soaking Time ( Minimum ) - 185 Minutes. (Soaking-150)  
 Rate of Cooling upto 400°C - 55°C/Hour.

Chkd. By	Dt	ECR/ Rev No	Dt.	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					4	5

**TECHNOLOGICAL PROCESS**

Production Order

Date

Plant:P006

Equipment No: HEH2953

102193312

25.10.2025

Type

Work Order / PGMA

Customer

Part No

P-1032284300-17521/  
17521

ANUPPUR THERMAL ENERGY (MP) PRIVATE

17521001

Drawing No.-Var

E.Rev.

T.Rev.

Material No.

Name Of The Part

21750501322-00

01

21750501322-00

DESUPERHEATER 7A MAIN ASSLY

Pos.No

BOM Qty

Ord Qty

MU

St.

Nt.Wt.

Remarks

1.000

1.000

EA

IS06

31.400.000

**Operation Details**

Opr No

W.C.

Plant

Ctl. ky

Prep Time

Time/ PC(M)

Time/ PC(L)

Total Time

QC Signature

PRT Cat

PRT No.

PRT Description

**Sub Operation Text**

Further cooling in still air

NOTE : Thermocouples are to be placed close to weld joints

REFER PLANT STANDARD NO. HY 0640763 FOR S.R.

If single hemi head is loaded then two thermocouples shall be placed on the hemi head, one at hemi head to manway nozzle weld joint and one at T1/T2 nozzle to hemi head joint. If multiple jobs are loaded, then all the furnace thermocouples shall be used.

If multiple jobs are loaded then furnace loading cycle shall be with maximum soaking time of clubbed cycles, rate of heating and rate of cooling shall be minimum of clubbed cycles.

Dispatch clearance shall be issued by BHEL QC only after PWHT chart is cleared by BHEL QC.

Send the assembly to 06-shop, BHEL Hyd.

Chkd. By	DL	ECR/ Rev No	DL	Pro.Plnr	Rate Fixr / Tool Plnr	Pg no	No.of Pgs
	21.04.2026					5	5

**Pre-Qualification Criteria for PWHT of Sub-assemblies more than 9 m Length**

The BIDDER has to compulsorily meet the Qualifying criteria indicated in section 1 to get qualified.  
Otherwise the technical offer will not be considered.

**SECTION: 1**

S.NO	Requirement	Vendors Response
1.1	Only those vendors shall quote who mandatorily meets the clause nos : 1.2 to 1.4	
1.2	Vendor shall have furnace of size(minimum) : 5m (width)X 4 m(height) X 10m(length), Furnace bed(load carrying capacity shall not be less than 33 Tons) and shall have carried out atleast one PWHT of sub-assembly without any deviation. PO Copy, Inspection report copy of the same shall be submitted. Phone number and e-mail of the organization who placed the order shall be submitted.	
1.3	Vendor shall not offload PWHT activities to other parties	
1.4	BHEL reserves the right to accept or reject the offer based on the assessment of their technical capability. BHEL reserves the right to verify the information provided by the Vendor by taking feed back or by visit to vendor works. In case the information provided by vendor is found to be false / incorrect, the offer shall be rejected.	

Prepared by		Approved by	
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**K. NAGARAJ**  
Sr. Manager / HE & F - Tech  
BHEL HYD-3

**Pre-Qualification Criteria for PWHT of Sub-assemblies less than 9m Length**

**The BIDDER has to compulsorily meet the Qualifying criteria indicated in section 1 to get qualified. Otherwise the technical offer will not be considered.**


**SECTION: 1**

<b>S.NO</b>	<b>Requirement</b>	<b>Vendors Response</b>
1.1	Only those vendors shall quote who mandatorily meets the clause nos : 1.2 to 1.4	
1.2	Vendor shall have furnace of size(minimum) : 5m (width)X 3.5m(height) X 9m(length), Furnace bed(load carrying capacity shall not be less than 33 Tons) and shall have carried out atleast one PWHT of sub-assembly without any deviation. PO Copy, Inspection report copy of the same shall be submitted. Phone number and e-mail of the organization who placed the order shall be submitted.	
1.3	Vendor shall not offload PWHT activities to other parties	
1.4	BHEL reserves the right to accept or reject the offer based on the assessment of their technical capability. BHEL reserves the right to verify the information provided by the Vendor by taking feed back or by visit to vendor works. In case the information provided by vendor is found to be false / incorrect, the offer shall be rejected.	

Prepared by



Approved by



**K. AGARAJ**  
Sr Manager / HE & F - Tech  
BHEL, Hyderabad

**SPECIAL CONDITIONS OF CONTRACT (SCC) FOR THE ENQUIRY of FRAMEWORK AGREEMENT No: E9AZS00011 Dt 13.05.2026 of Heat treatment of Hemi Head Assly, Shell Assly and Skirt Assly of HP Heaters and De-super Heaters Tender Due date: 20.05.2026**

**ENQ. NO. E9AZS00011 Dt:13.05.2026**

**DUE DATE:20.05.2026**

SI.NO	DESCRIPTION	BHEL REQUIREMENT	VENDOR'S CONFIRMATION
1	NATURE OF CONTRACT	Enquiry is for Framework Agreement of Heat treatment of various components namely Hemi Head Assly, Shell Assly and Skirt Assly of HP Heaters & De-super Heaters.	
2	TWO-PART BID	Offer shall be submitted in two part bid system against this enquiry. Part-I shall consist of Techno-Commercial bid with all required documents and Price shall be fed in Part-II.	
3	TECHNO-COMMERCIAL BID	<p>Techno-Commercial Bid shall essentially consist of:</p> <p>(i) Bidder's confirmation of BHEL drawing/Specification &amp; technological scope.</p> <p>(ii) Bidder's confirmation of BHEL Quality plan (if applicable)</p> <p>(iii) Duly filled in signed and stamped Special Contract Conditions (SCC).</p> <p>(iv) Duly filled in signed and stamped Instructions to Bidder (ITB).</p> <p>(v) Duly filled in and completed in all respect ITB ANNEXURE-II (Framework Confidentiality Agreement cum undertaking)</p> <p>(vi) Udyam Registration Certificate for MSE vendors.</p> <p>(vii) Duly signed and stamped Un-price bid.</p> <p>All the above documents shall be duly authenticated by signature and official seal of the company.</p> <p><u>Note:</u> Bid shall be complete in all respects including all the documents / information required for techno-commercial evaluation. Incomplete offers shall be liable for rejection.</p>	
4	PRICE BID	<p>Vendor shall quote Rate <b>per kg</b> basis only.</p> <p>The rate quoted shall be inclusive of conversion charges, all consumables, handling charges and transportation charges (<b>Only one way</b>) from charges from vendor to BHEL (HPEP) Stores. Quoted price shall be on firm basis. No revision of prices will be entertained after the tender is opened.</p>	
5	DETAILS OF JOB / WORK	<p>Heat treatment of Hemi head Assembly, shell assembly and Skirt assembly of HP heaters and De-super Heaters as per technological scope with BHEL materials &amp; in line with NIT/SCC Terms &amp; Conditions.</p> <p>Refer Annexure I and II, reference drawings and tender documents.</p>	
6	QUANTITY (Approximately)	<p>Total quantity: 237 No.s &amp; Total Weight : 3765121 kg (Refer Annexure II)</p> <p>Item No: 1 -- Quantity 70 No.s and weight: 800501.00 kg</p> <p>Item No: 2 -- Quantity: 142 No.s and Weight: 2297790.00 kg</p> <p>Item No: 3 -- Quantity: 05 No.s and Weight: 47534.00 kg</p> <p>Item No: 4 -- Quantity: 20 No.s and Weight: 619296.00 kg</p>	
7	DELIVERY	<p><b>Delivery Conditions</b></p> <p><b>The heat-treated items shall be delivered to BHEL Hyderabad Store in the following manner from the date of dispatch of materials through PPMIV from BHEL Ramachandrapuram to vendor's works.</b></p> <p><b>For Item No.s 1 or 3 (soaking time less than 2hrs):</b> BHEL will dispatch item(s) with a total weight of 20,000 kg ± 5,000 kg approx. as single / multiple consignments from BHEL Hyderabad to vendor's works</p> <p><b>The heat-treatment-completed items (20,000 kg ± 5,000 kg approx.) shall be delivered to BHEL Hyderabad Store within 10 days from the date of dispatch of last PPMIV item from BHEL Hyderabad.</b></p> <p><b>For Item No. 2 or 4 (soaking time more than 2hrs):</b> BHEL will dispatch item(s) with a total weight of 45,000 kg ± 5,000 kg approx. as single / multiple consignments from BHEL Hyderabad to vendor's works.</p> <p><b>The heat-treatment-completed items (45,000 kg ± 5,000 kg approx.) shall be delivered to BHEL Hyderabad Store within 10 days from the date of dispatch of last PPMIV item from BHEL Hyderabad..</b></p>	

8	SCOPE OF MATERIAL SUPPLY AND TRANSPORTATION CHARGES	Sending of items, i.e., transportation (including freight and insurance), from BHEL Hyderabad to the respective vendor's works shall be in BHEL's scope. Dispatch of heat treatment completed items from the vendor's works to BHEL Hyderabad shall be in the vendor's scope (including freight and insurance).	
9	PAYMENT TERM	75% payment will be made within 45/60/90 (MSE/Medium Enterprise/Non MSME) days from the date of receipt of finished items at our works against GR and 25% will be paid after material accounting is done. Note: A. Above due date is reckoned from the date of Receipt of material or 15 days from the date of submission of complete set of documents as per PO whichever is later. Payment will be made on acceptance of Material. B. MSEs (covered under MSME Act) need to register and renew periodically and update the same with BHEL C. The taxes that are reimbursed are limited to applicable taxes as on the Purchase Order delivery date or the amount actually paid whichever is less. D. Adherence to the above time schedule of payment is contingent upon Bidder complying with GST provisions and availment of Input Tax Credit by BHEL before the date of payment. E. In case of packaged items, 10% of supply value will be retained till completion of total supplies. F. Bidders to comply with clause 11 on GST requirements	
10	VALIDITY OF OFFER	Your Offers must be kept valid for a period of 90 days from the date of part-1 bid opening and in the event of our acceptance of your offer the prices finalized should remain firm for "one year" from the date of finalisation of tender (i.e approval of PO note). However same may be extended for another one year based on mutual agreement.	
11	PENALTY	In the event of delay in supply of goods, a penalty of 0.5% per week or part there of shall be levied on the delayed order value subject to a maximum of 10%. Reckoning date for penalty is c-note date / GR date.	
12	TOOLS	Tools, gauges, jigs & fixtures and instruments will not be supplied by BHEL.	
13	REJECTION OF CONDITIONAL OFFERS	Conditional offers if any submitted by the firms will not be acceptable.	
14	MODE OF TENDER FINALIZATION	There shall be no reverse auction in this tender and thus tender shall be finalized with opening of sealed cover price bids.	
15	BREACH OF CONTRACT, REMEDIES AND TERMINATION	In case of Breach of Contract, BHEL shall recover 10% amount of the contract value from the vendor in any of the following manners: (i) Forfeiture/ encashment of Security instruments (Performance security, EMD etc.) available against the said contract. (ii) Pending / Available bills of the vendor , any amount available with BHEL HPEP or any other units of BHEL. (iii) In case recovery is not possible from security instruments or from financial remedies mentioned above, legal remedies shall be pursued. Important Notes: (1) Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.	
16	BASIS OF TENDER EVALUATION	Tender will be evaluated on Item wise basis. Vendor quoting lowest against each item shall qualify as L1 for that item.	
17	QUANTITY DISTRIBUTION	<b>Total contract value will be distributed maximum among the bidders in the manner given below:</b> <b>Case-1: In case of single qualified bidder: Total value of contract will be loaded on L1 vendor only.</b> <b>Case-2: In case of only two qualified bidders: Out of total value of contract 60%(+/- 10%) will be given to L1 vendor and 40%(+/- 10%) will be counter offered to L2 vendor at L1 price subject to approval of competent authority. If L2 vendor does not accept the L1 rate through counter offer then total quantity will be loaded on L1 vendor.</b> <b>Case-3: In case of three qualified bidders: Distribution will be limited to two bidders (i.e N-1, where N is number of qualified bidders). Out of total value of contract 60%(+/- 10%) will be offered to L1 vendor and 40% (+/- 10%) will be counter offered to L2 vendor at L1 price. If L2 vendor is not accepting the counter offer then the same quantity shall be counter offered to L3 vendor. If none of the vendor is accepting the same counter offer ,then that quantity will be loaded on L1 vendor only.</b> <b>Case-4: In case of more than three qualified bidders: Distribution will be limited to N-1 (maximum three bidders) bidders (where N is number of qualified bidders). Out of total value of contract 50%(+/- 5%) will be offered to L1 vendor, 30% (+/- 5%) will be counter offered to L2 vendor at L1 price and 20% (+/- 5%) will be counter offered to L3 vendor at L1 price . If any of the vendor is not accepting the counter offer then the same quantity shall be counter offered to next ranking vendor. If none of the vendor is accepting the same counter offer ,then that quantity will be loaded on L1 vendor only.</b>	

18	Re-Distribution of Quantity	After finalization of the Framework Agreement, in the event that any vendor fails to execute the order in accordance with the terms and conditions of the NIT, BHEL shall have the absolute and exclusive right, at its sole discretion, to re-distribute and load the quantity allocated to the defaulting vendor on to the remaining vendors, in order of tender priority, based on the recommendations of the EMPOWERED Committee.	
19	Vendor qualification	Vendor has to comply with PQC (Pre-qualification criteria) requirement. Only those vendor's offers shall be qualified for technical evaluation, whose works is falling within the range of 75 Kms from BHEL HPEP ADMIN building.	
20	CHANGE IN WEIGHT	Any change in weight of components either lower or higher side due to non-availability of particular raw material and subsequent change proposal to higher thickness/lower thickness shall not attract for amendment of PO and therefore payment of increased or decreased cost. Amendment of PO will be done only when net weight of drawing has increased/decreased due to Engineering oversight.	
21	INSPECTION AT VENDOR WORKS	Stage and final inspection shall be carried out by <b>BHEL QC/BHEL TPIA</b> . Tests & Inspection shall be in line with drawing and technological scope and approved quality plan. Vendor shall raise inspection call accordingly.	
22	DRAWINGS	a) These drawings are the property of BHEL. Copying or circulating or misuse of these drawings or parts of it by vendor is not permitted and will have to face legal consequences if found so. b) Assembly drawings shall be provided along with enquiry. However complete drawings will be given at the time of placement of order.	
23	CLARIFICATION	If any further clarification is required kindly depute your representative for discussion before submitting your offer. Contact phone no: 040-23184758 mob: 8978571886/9751928957/9959477023. Mail ID: sivaprasadj@bhel.in, pykrishna@bhel.in and nagarjunasagar339@bhel.in	
24	GUARANTEE	Equipment shall be guaranteed against all manufacturing defects for a period of 24 months after supply or 18 months after commissioning whichever is later. Defects noticed shall be replaced / rectified at free of cost by the supplier.	
25	LOADING/UNLOADING FACILITIES	You must have adequate material handling facilities for safe unloading of raw materials/loading of finished products.	
26	INSPECTION at BHEL HYDERABAD	The goods will be cleared for dispatch on provisional basis. On receipt of the goods at our BHEL shop/site, the goods shall be subjected to inspection. And any defects noticed during assembly, testing or use, notwithstanding the same may have been passed, certified and paid for – is to be rectified by the subcontractor, in whole or in part, as the case may require, at their own cost. In the event of his failure to do so within reasonable period, BHEL will rectify or remove and re-execute the work at the risk & cost of subcontractor. The cost of rework or rejection, and any cost of freight incidental to such work will be to the subcontractor's account. Thus, Our acceptability of the goods shall be final.	
27	CONSEQUENCES OF REJECTION	In the event of any rejection arising due to the workmanship or due to mishandling of assemblies or components or any kind of damage which renders the assemblies unfit for use, the cost of each assembly shall be recovered along with taxes & duties as per BHEL norms from the bank guarantee being furnished by vendor.	
28	RIGHT OF CANCELLATION	BHEL shall have the right to cancel the contract wholly or in part in case it is obliged to do so on account of any decline, diminution, curtailment or stoppage of business.	
29	CONSEQUENCE OF FAILURE TO EXECUTE THE ORDER	After placing PO, in case vendor fails to execute the order due to reasons attributable to vendor, it is vendor's obligation to return the raw material to BHEL, failing which BHEL will bring back material as per transport contract and the amount will be taken/deducted from available bills of vendor. Further action will be initiated on vendor for non performance of contract as per BHEL norms.	
30	PACKING	For any loss or damages arising out of improper packing and dispatch, the vendor will be held responsible	
31	TAXES & DUTIES	Applicable taxes and duties to be mentioned in the offer.	
32	BANK GUARANTEE	For material valuing upto Rs. 50,000/- per SCO no BG is required. For material valuing more than Rs. 50,000/- per SCO, 10% of the material value shall be provided as BG specific to enquiry with sufficient validity minimum six months or any other financial instrument as specified by BHEL without which PO will not be released.	
33	DISCRETION OF ACCEPTANCE	BHEL reserves right to accept or reject any tender or a portion thereof without assigning any reason whatsoever. BHEL has the right to refloat or short-close the Tender if L1 price is not the lowest acceptable price, or for other reasons.	
34	MSE CLAUSE	"MSE suppliers can avail the intended benefits only if they submit along with the offer, Udyam Registration Certificate. Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through E-Procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted Officer."	

35	INDEMNITY	Subcontractors shall indemnify BHEL against the following: (A)All claims for injury or damage caused by the sub contractor's negligence or the negligence of subcontractor's employees or arising from any defect in the goods supplied or on the work carried out by the subcontractor's. (B)All claims for injury to the subcontractor employees or agents employed whilst on BHEL premises.	
36	GENERAL	Any change in the address/reduction in qualified workplaces/ownership of the subcontractor's unit during the operation of the contract will have to be made only after getting the specific written approval from BHEL. Any deviation found later will be dealt with as deemed fit, including cancellation of registration.	
37	ACTION AND COMPENSATION IN CASE OF BAD WORKMANSHIP	<i>If any work has been executed with unsound, imperfect or bad workmanship or with materials of inferior quality, the Sub-contractor shall on demand in writing from BHEL specifying the work, material/articles complained of, not with standing that the same may have been passed, certified and paid for, forthwith, rectify the work so specified in whole or in part as the case may require, at their own cost and in the event of his failure to do so within reasonable period, BHEL will rectify or remove and re-execute the work at the risk and cost of the Sub-contractor.</i>	
38	CONFLICT OF INTEREST	A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder, found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if: a) they have controlling partner (s) in common; or b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or c) they have the same legal representative/agent for purposes of this bid; or d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from. one bidding manufacturer in more than one bid; of) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following: 1. The principal manufacturer directly or through one Indian agent on his behalf; and 2. Indian/foreign agent on behalf of only one principal, or g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid, or h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business.	

39	INTEGRITY PACT (IP)	<p>(a) IP is a tool to ensure that activities and transactions between the Company and its Bidders / Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.  <u>Details of IEM for this tender is furnished below:</u>  i) Name: Shri Otem Dai, IAS (Retd.)  E-mail: iem1@bhel.in</p> <p>ii) Name: Shri Bishwamitra Pandey IRAS (Retd.)  E-mail: iem2@bhel.in</p> <p>iii) Name: Shri Mukesh Mittal, IRS (Retd.)  E-mail: iem3@bhel.in</p> <p>(b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into the Pact would be a preliminary qualification.</p> <p>(c) Please refer Section-8 of the IP for the Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the panel of IEMs. All correspondence with the IEMs shall be done thru' e-mail only.</p> <p>Note:  No routine correspondence shall be addressed to the IEM (phone / post / email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarifications / issues shall be addressed directly to the tender issuing (procurement) department officials.</p>	
<b>Note: The above terms and conditions are applicable for this tender. All the remaining terms and conditions are as per ITB.</b>			

Annexure - I						
Item No	SR details	No of components	Weight (kg)	Component Name and Dimension Details	SR Cycle Details	Quoted/ Not quoted
1	Soaking time less than two hours and Length of the Job <= 9 mtrs	70	800501	Refer Annexure -II	Refer Scope	
2	Soaking time more than two hours and Length of the Job <= 9 mtrs	142	2297790	Refer Annexure -II	Refer Scope	
3	Soaking time less than two hours and Length of the Job > 9 mtrs	5	47534	Refer Annexure -II	Refer Scope	
4	Soaking time more than two hours and Length of the Job > 9 mtrs	20	619296	Refer Annexure -II	Refer Scope	
		237	3765121			
		Total Quantity (No.s)		237		
		Total Weight (kg)		3765121		

**Notes:**

1. The total quantity mentioned in the Annexure-I is indicative only. The actual quantity may differ as per BHEL requirements.
2. Vendor has to clearly mention quoted or not quoted against each item.

## Annexure-II

Sl. No.	Project & Equipment	WBSE	Sub Assly for SR	Qty	Wt (Kg) for 01 No	Total Weight (kg)	L (mm)	B (mm)	H (mm)	Item No
1	Adani-11 HPH 7A	P-1032283700-17509	Skirt Assly	12	16411	196932	4800	1970	1970	Item No: 1
2	Adani-11 DSH	P-1032284300-17521	Skirt Assly	12	7473	89676	1350	1603	1603	Item No: 1
3	Adani-11 DSH	P-1032284300-17521	Shell Assy	12	6356	76272	4300	1970	1290	Item No: 1
4	Hindalco HP-5	P-1032298500-17501	Skirt Assly	3	4145	12435	3650	1130	1130	Item No: 1
5	Hindalco HP-6	P-1032298600-17505	Skirt Assly	3	3850	11550	3550	1130	1130	Item No: 1
6	Adani-11 HPH 7A	P-1032283700-17509	Shell Assy	12	13125	157500	8500	2500	2500	Item No: 1
7	Sipat HPH 7A	P-1032281500-17509	Skirt Assly	8	19197	153576	5600	2500	2500	Item No: 2
8	Sipat HPH 7A	P-1032281500-17509	Shell Assy	8	12820	102560	7800	2300	2600	Item No: 1
Total Weight of Item No: 1 = 800501 kg										
9	Adani-11 HPH 7A	P-1032283700-17509	Hemi head Assly	36	10730	386280	2100	3000	1155	Item No: 2
10	Adani-11 HPH 9A	P-1032284100-17523	Skirt Assly	12	20856	250272	3400	1970	1970	Item No: 2
11	Adani-11 DSH	P-1032284300-17521	Hemi head Assly	12	6300	75600	1700	2500	1000	Item No: 2
12	Sipat HPH 7A	P-1032281500-17509	Hemi head Assly	24	11018	264432	2100	3100	1300	Item No: 2
13	Sipat HPH 9A	P-1032281900-17523	Skirt Assly	8	21248	169984	3000	2500	2500	Item No: 2
14	Suratgarh HPH-6	P-5032227801-17505	Skirt Assly	2	22253	44506	4700	2340	2340	Item No: 2
15	Suratgarh HPH-6	P-5032227801-17505	Hemi head Assly	2	14380	28760	3300	3300	1390	Item No: 2
16	Hindalco HP-5	P-1032298500-17501	Hemi head Assly	6	2030	12180	1720	1720	750	Item No: 2
17	Adani-11 HPH 8A	P-1032283900-17511	Skirt Assly	12	21541	258492	5900	1970	1970	Item No: 2
18	Adani-11 HPH 9A	P-1032284100-17523	Shell Assy	12	29711	356532	8100	2350	2600	Item No: 2
19	Sipat HPH 8A	P-1032281700-17511	Skirt Assly	8	23094	184752	7100	2500	2500	Item No: 2
20	Sipat HPH 9A	P-1032281900-17523	Shell Assy	8	33250	266000	7700	2300	2600	Item No: 2
Total Weight of Item No: 2 = 2297790 kg										
21	Hindalco HP-6	P-1032298600-17505	Shell Assy	3	6410	19230	9500	1640	2000	Item No: 3
22	Suratgarh HPH-6	P-5032227801-17505	Shell Assy	2	14152	28304	10200	2800	2800	Item No: 3
Total Weight of Item No: 3 = 47534 kg										
23	Adani-11 HPH 8A	P-1032283900-17511	Shell Assy	12	29818	357816	10000	2350	2600	Item No: 4
24	Sipat HPH 8A	P-1032281700-17511	Shell Assy	8	32685	261480	10500	2300	2600	Item No: 4
Total Weight of Item No: 4 = 619296 kg										
Total Cumulative Weight of Items in Enquiry = 3765121 kg & Total Quantity = 237 No.s										
Note: The dimensions mentioned in this Annexure-II are indicative only. The actual dimensions may differ as per BHEL requirements.										



(Attachment to Enquiry No. XXXXXXXXXX Due on Date XX.XX.XXXX for submission by 11.00 hrs to open from 14.00 hrs.)

**INSTRUCTIONS TO BIDDER (ITB)****NOTE: Bidder to confirm in affirmative by typing "YES" or "Applicable Data" in the response column. Deviations, if any shall be recorded in deviations/comments column (Separate sheet can be attached if needed). Non deviatable clauses are indicated as "NON DEVIATABLE".**

Sl. No.	DETAILED TERMS & CONDITIONS	BIDDER RESPONSE (YES/NO)	DEVIATIONS / COMMENT
<b>1</b>	<b>SCOPE OF SUPPLY:</b>		
	Signed & Sealed offers are invited for the Scope of Supply of goods or services or both as detailed in the enquiry. Relevant enclosures/supporting documents / catalogue, if any shall be enclosed to the technical offer.		
<b>2</b>	<b>DEFINITIONS</b>		
A	'The Buyer' means BHEL-HPEP, Ramachandrapuram, Hyderabad-502 032 of Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the companies Act having its registered office at BHEL House, Siri fort, New Delhi-110049, India and shall be deemed to include its successors and assigns. It may also be referred to as BHEL.		
B	'The Bidder' means the persons, firm, company or organization on whom the Purchase order is placed and shall be deemed to include the bidder's successors, representatives, heirs, executors and administrator as the case may be. It may also be referred to as Contractor, supplier or bidder.		
C	'Contract' shall mean and include the Purchase order incorporating various documents viz., Notice Inviting Tender (NIT), Offer, Letter Of Intent/Acceptance (LOI/LOA), Instruction to Bidders (ITB) and Special Conditions of Contract (SCC), specifications, inspection/quality plan, schedule of prices and quantities, drawings, if any, enclosed by Bidder/ provided by the Buyer or his authorized nominee and the samples or patterns if any to be provided under the provision of the contract. In case of any inconsistency or contradiction between any of the documents, the order of precedence shall be Purchase Order, LOI/LOA followed by Minutes Of Meeting (MOM), NIT, SCC, ITB.		
D	'Parties to the contract' shall mean the bidder and the buyer as named in the main body of the Purchase Order.		
E	'Goods/Material' shall include Works and Services which are incidental or consequential to supply.		
<b>3</b>	<b>GENERAL INSTRUCTIONS:</b>		
A	Mode of submission of offer shall be as indicated in SCC		<b>Non Deviatable</b>
B	The quotation should be neatly typed and free from over writing/ erasures. Any correction or addition must be authenticated. The offer including annexures and brochures should be submitted in English / Hindi. All Pages of Techno Commercial Bids (Main Pages), ITB, SCC should be signed and Stamped. If there is a conflict in case of bilingual submission, the submission in English will be final. Prices shall be quoted both in figures and words. In case of any discrepancy in value, the prices quoted in words shall be considered for evaluation and establishing L1 Status. Any discount / revised offer / bids submitted by a bidder on his own shall be considered, provided it is received on or before the due date and time of offer / bid submission (Part-1). Conditional discounts shall not be considered for evaluation of tenders.		<b>Non Deviatable</b>
C	Incomplete offers are liable for rejection.		<b>Non Deviatable</b>
D	Bidders to please note that the Terms & conditions contained in this document and SCC are to be read fully before submission of quotations.		<b>Non Deviatable</b>
E	Bidders are advised to comply with ITB and SCC, should there be any deviations (where deviations are permitted), it shall be entered in the deviation column. BHEL reserves the right to reject such offers or load the bid suitably for evaluation.		<b>Non Deviatable</b>
F	Offers shall be submitted directly, only by the bidder or by their authorized representative / agent and the offer should be in line with the regulatory guidelines (i.e. A valid Agency agreement between principal bidder and agent / representative shall be attached and the agreement shall cover the scope of services rendered by Agent, Agency Commission and any other information called for as per the regulatory guidelines). OEM / Mill details shall be provided if bidder is not a manufacturer. Bid envelops shall bear the name of Bidder. In case of submission through authorized representative/agent, the name of representative/agent should also be mentioned apart from bidder name.		<b>Non Deviatable</b>
G	Offer received after the specified time and date of submission will be rejected. No further correspondence shall be entertained.		<b>Non Deviatable</b>
H	Unsolicited offers will not be considered.		<b>Non Deviatable</b>
<b>4</b>	<b>OTHER PARTICULARS (Please indicate applicable data)</b>		
A	Name of the Bid currency (freely tradable foreign currency for imports and Indian Rupees for indigenous purchase).		
B	Name of the Port of loading and Port of Discharge (applicable to imports).		



<b>5</b>	<b>BID SUBMISSION PROCEDURE FOR CONVENTIONAL TENDER:</b>		
<b>A</b>	<b>For Single Part Bids:</b>		
	The complete bid shall be submitted in a single sealed cover superscribing the Tender number and due date, addressed to Sr DGM/CMM, Vendor Complex, BHEL, Hyderabad and sent by appropriate mode to above address or dropped in tender box located at vendor complex on or before the specified time and date of submission of offers, preferably in the bidder's envelope. E- mail bids shall be sent to mail ID <a href="mailto:pricebid_hyd@bhel.in">pricebid_hyd@bhel.in</a> only as an attachment.		<b>Non Deviatable</b>
<b>B.</b>	<b>For two-Part Bids:</b>		
i	The offer is to be submitted in two parts viz., Techno-commercial Bid - (Part-I), with all technical specification & scope including bill of material etc., Earnest Money Deposit (EMD)(wherever applicable) and unpriced bid with all applicable Commercial Terms and Conditions, rates of agency commission, duties, taxes and other charges, Signed and Stamped ITB and SCC, <u>except the price</u> , shall be kept in a separate sealed cover, superscribing enquiry No. (Techno-Commercial Bid) and due date AND Price Bid (Part-II), containing ONLY the price (including agency commission, if any) and the applicable duties/taxes/other charges shall be kept in a separate sealed cover superscribing Enquiry no. (Price bid) & due date.  Both the above covers (Part –I & II) shall be kept in a Third cover superscribing Enquiry no. & due date.  Bidder can also submit offer through email. Technical offer to be submitted to mail ID <a href="mailto:technicalbid_hyd@bhel.in">technicalbid_hyd@bhel.in</a> , and price bid to be submitted to mail ID <a href="mailto:pricebid_hyd@bhel.in">pricebid_hyd@bhel.in</a> only as an attachment. Interchanging the information in the mails may lead to rejection of the offer. Bidder shall have no claim on e-mail offers sent to any other e-mail ID.  In case of e-mail offers, the mail subject should contain Enquiry Number, Due date and Bidder name. Bidder address including contact details shall be mentioned in the content of the mail. Without these details, the offer is liable for rejection.  All techno commercial terms & conditions mutually agreed prior to price bid opening shall prevail and supersede any terms and conditions specified otherwise in price bid.		<b>Non Deviatable</b>
ii	The bidders whose bids are techno commercially not accepted will be informed and EMD shall be returned wherever submitted.		
iii	Bidders will be allowed to submit the impact on their quoted prices due to changes in technical scope, specifications, and commercial terms/conditions as specified in NIT which in the opinion of BHEL , warrant changes in prices.		<b>Non Deviatable</b>
<b>C</b>	Bids shall be opened on due time and date in the presence of bidders who may like to be present. Only one representative of each bidder shall be permitted to attend the bid opening. Only the price bids of bidder (in case of two part bid) whose techno commercial bids are accepted will be opened later on a specified date.		<b>Non Deviatable</b>
<b>6</b>	<b>DELIVERY TERMS</b>		
<b>A</b>	<b>Indigenous Purchase</b>		
	a. Terms of Delivery for dispatches to BHEL Hyderabad (HPEP) shall be FOR Destination. b. Terms of Delivery for Direct Dispatch (DD) items shall be Ex Works. i. In case specified in SCC that insurance is in customer/BHEL scope, price quoted shall include Freight charges up to Destination. ii. Otherwise, price quoted shall include Freight and Insurance upto Destination. However, beneficiary for insurance shall be BHEL.		
<b>B.</b>	<b>Imports</b>		
	The goods shall be delivered on FCA capital airport basis in case of freight by Air and CIP basis in case of freight by Sea.		
<b>7</b>	<b>Documentation for Payment</b>		
<b>A</b>	<b>Indigenous Purchase</b>		
	Following documents shall be submitted immediately on dispatch of material to BHEL HPEP / Site a. Two numbers of Original Tax Invoice (Refer ITB clause no 11 for Tax Compliance)/ e-invoice of GST Portal if applicable) b. Packing List - clearly showing number of packages, gross weight and net weight. c. Test/Warranty/Guarantee certificates, O&M Manual (If specified in SCC) d. Insurance intimation/declaration certificate e. Pre-dispatch Inspection report /Third Party Inspection Certificates. f. Consignee copy of LR signed & stamped by Customer/Site representative for DD Items g. e-waybill h. Any other documents as specified in SCC.		<b>Non Deviatable</b>



B	<p>Softcopies of the above documents shall be uploaded in SUVIDHA portal <a href="https://suvidha.bhel.in/suvidha/">https://suvidha.bhel.in/suvidha/</a> or <a href="https://hpep.bhel.com/mm/main.jsp">https://hpep.bhel.com/mm/main.jsp</a> Vendor Bills tab. immediately after dispatch of the material. Upload of Documents is mandatory for material Entry.</p> <p><b>Imports</b></p> <p>i) Bidder shall inform BHEL the readiness of material along with packing details 30 days in advance from the date of delivery. For Hazardous cargo/DG cargo, supplier must provide the following documents prior to handing over shipment to freight forwarder, wherever freight is in BHEL scope:</p> <ol style="list-style-type: none"><li>1. Valid MSDS</li><li>2. DGD certificate with appropriate UN numbers.</li><li>3. Labelling and marking on DG cargo along with photo of packaging.</li><li>4. Self-declaration for consignment</li><li>5. Packaging Certificate as per DG Standards</li><li>6. TSA Approved Truckers details to be provided to forwarder at the time of shipment</li></ol> <p>In addition to the above, supplier should ensure to comply all IATA DG regulations, if any new requirement is added in future.</p> <p>ii). Bidder shall also upload the soft copy of the dispatch documents consisting of BL / AWB, Invoice, delivery note, packing list, country of origin &amp; Test certificates and other documents as specifically indicated in the SCC in PRADAN Portal (<a href="https://hpep.bhel.com/mm">https://hpep.bhel.com/mm</a>) within Five days from the B/L date for sea shipment and One day from AWB date for Air shipment and sent to email ids: mssea@bhel.in, msair@bhel.in, cmmfe@bhel.in.</p> <p>iii) AWB/BL must contain the information of BHEL GST no., and PAN no.</p> <p>iv) <b>Air Shipments:</b> Bidder shall ensure the following</p> <ol style="list-style-type: none"><li>a) Port of discharge -- Mumbai/Chennai/Hyderabad (as indicated in SCC).</li><li>b) Consignee shall be BHEL, Hyderabad. Material shall be air freighted through cargo mode only and not through Courier.</li><li>c) Upon handing over the cargo to the forwarder, bidder shall ensure the acknowledgement receipt with wordings "Cargo handed over in sound condition for Air freighting". Note: Warehouse receipt will not be considered for penalty calculations.</li><li>d) In case of CIF/ shipments, bidder shall also inform BHEL the information about discharge port agent details and cargo arrival information within one day from the date of Shipment.</li><li>e) Following dimensions of single package may be noted.<ol style="list-style-type: none"><li>i). Maximum dimension of the cargo(ODC) -- 125" x 88" x 63"</li><li>ii). Maximum weight of the cargo -- 3.5 MT.</li></ol>If any package dimension or weight exceeds the above set limits, it will be treated as Over Dimension Cargo (ODC) or Over Weight Cargo and bidder shall inform BHEL 30 days in advance to the delivery date to enable BHEL to finalize the freight forwarder.</li><li>f). If package falls under Hazardous category, bidder shall communicate BHEL 30 days in advance period with document support.</li></ol> <p>v) <b>Sea Shipments:-</b> bidder shall ensure the following</p> <ol style="list-style-type: none"><li>a). Port of discharge -- Nhavaseva/Mumbai/Chennai.</li><li>b). Place of Delivery / Final Destination for CIP shipments - Nhavaseva CFS / Chennai CFS.</li><li>c). In case of FOB shipments, bidder shall handover the material to BHEL nominated forwarder and obtain the cargo receipt.</li><li>d). If the material cannot be containerized in 20 or 40 GP containers, an advance information of 30 days prior to the delivery date shall be communicated to BHEL for necessary arrangements and finalisation of freight forwarder.</li><li>e). <b>For CIP shipments</b><ol style="list-style-type: none"><li>1. In case of FCL shipments, Detention free period must be 14 days.</li><li>2. Bidder shall also inform BHEL the information about discharge port agent details and cargo arrival information within 5 days from the date of Shipment.</li><li>3. No charges for the services rendered till place of destination will be payable by BHEL. In case liner / forwarder insist for charges, not in the scope of BHEL, the same will be adjusted from bidder account.</li><li>4. In case of CIF shipments -- Bidder must select a forwarder/liner whose discharge port published tariff for THC and other services is available. Any charges over and above the published tariff will not be borne by BHEL or will be adjusted from the bidder's bill.</li><li>5. bidder must insure the cargo for 110% of material value including the freight amount.</li></ol></li></ol> <p>(vi). Recovery charges for non-submission of documents: - Bidder shall submit all the required documents to BHEL as prescribed in the Purchase order and NIT.</p>		
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If BHEL incurs any charges such as Penalty, demurrage, container detention, wharfage, storage, Ground rent etc., due to non - compliance / non - submission of documents prescribed in Purchase Order/ NIT/Letter of credit, the same shall be recovered from the bidder as under:  
 1. EUROPE/USA/Black Sea/ Far East/Middle East/South East sector

**A. For FOB Sea Consignments:-**

Penalty for late submission / negotiation of documents beyond 14 days shall be as under:

Sl. no	Period (From Date of Bill of Lading)	Recoverable Charges		
		LCL per week/ Break bulk cargo per day	20FT Container	40FT Container
i	Upto 14th day	Nil	Nil	Nil
ii	15th day onward	USD 10	USD 110	USD 200

**B. For CIP Sea Shipments: -**

Bidder shall provide rates for detention charges after free period at the time of offer itself in case of engagement of 20FT Container and 40FT category. In case of late presentation of documents to the bank recovery will be effected from the Bidder as per the rates quoted by the Bidder at the time of offer in this regard.

In case of Break bulk cargo and LCL, Demurrage charges shall be recovered at the rate of USD 1 per Ton per day and storage charges at the rate of USD 10 per week respectively shall be charged as late presentation charges.

(vii) Description of items in invoice, packing list, BL / AWB or LR shall be same as PO item description. Bidders shall ensure that invoice shall contain PAN nos. of both bidder and BHEL along with other tax related numbers. BHEL PAN AAACB4146P and BHEL TAN HYDB00086C Any other additional documents sought by the statutory authorities, the same shall be produced by the bidder on priority basis.

(viii) Bidder shall provide package details including number of packages, gross weight, net weight etc.

(ix) The bidder shall provide the following documents at the time of submission of offer:

a) No Business Connection in India declaration issued by the bidder as per the format specified. (or)

b) (i) No Permanent Establishment in India declaration issued by the bidder as per the format specified.

(ii) Tax Residence Certificate issued by the bidder's tax authorities.

(iii) Form 10F, as attached in Annexure V, to be issued by the bidder.

c) In case the bidder has a Business Connection in India as per Section 9 of Income Tax Act or significant economic presence in India as per rule 11 UD of IT Act or Permanent Establishment in India as per Article 5 of Double Taxation Avoidance Agreement between India and the bidder's country, the bidder shall provide a withholding tax order issued by the Indian Income Tax authority for recovery of applicable tax.

8	<b>Delivery Schedule</b>		
	The tendered goods shall be delivered within the period stipulated in NIT/ SCC as accepted. Inordinate delay/early supply are liable for rejection/ Hold on payment.		<b>Non Deviatable</b>
9	<b>Pricing Terms</b>		
	Quoted price shall be inclusive of Packing & Forwarding and shall remain firm and valid during the execution of PO. Offers with PVC will be rejected outright except in cases where specifically called for in the SCC.		<b>Non Deviatable</b>
10	<b>PRICE VALIDITY :</b>		
	Unless otherwise specified, offer shall be valid for a period of 90 days from the date of bid opening (Technical bid /part-I in case of two part bid). However the prices quoted for spare parts of the Main equipment shall be kept valid for a period as specified in SCC.		<b>Non Deviatable</b>



<p>11</p> <p>A</p>	<p><b>Taxes &amp; Duties (RATE TO BE INDICATED by the bidder against the space provided )</b></p> <p><b>Indigenous Purchase</b></p> <p>i) Only valid GST registered bidders will be considered for the tender. The GSTIN of the bidder should be clearly mentioned in the offer.</p> <p>ii) If bidder is exempted from GST registration under any provision of the GST Law, a declaration with due supporting documents should be furnished for considering the offer.</p> <p>iii) Bidder to quote the applicable taxes in the following manner:</p> <ul style="list-style-type: none"> <li>- Harmonized System of Nomenclature (HSN) of Goods</li> <li>- Services Accounting Code(SAC) of Services.</li> <li>- IGST/CGST/SGST/UTGST: Rate of Tax to be quoted as extra in % against the space provided</li> </ul> <p>iv) Bidders to ensure correct applicability of IGST/CGST/SGST/UTGST based on the Inter / Intra state movement of goods/services.</p> <p>v) In case Bidder has opted for GST Composition Scheme, the same may be stated explicitly both in their technical and price bids. An undertaking to the effect that any change in the status of the bidder will be intimated.</p> <p>vi) Any other taxes &amp; duties not covered anywhere above may be indicated separately.</p> <p><b>Taxes deducted at source:</b></p> <ul style="list-style-type: none"> <li>- TDS as per the extant statutes shall be deducted.</li> <li>- In case bidder does not provide PAN details, higher rate of tax shall be deducted as per the Act.</li> <li>- Concessional certificates, if any, should be provided well in time for lower deduction of tax.</li> </ul>	<p><b>Non Deviatable</b></p>
	<p><b>Terms &amp; Conditions to be complied</b></p> <p>1. All invoices (incl. Credit Notes, Debit Notes) to contain BHEL HPEP GSTIN ie 36AAACB4146P1ZG. Invoices submitted should be in the format as specified under GST Law. All details as mentioned in Invoice Rules including Dealer GST registration number (GSTIN), invoice number with date of issue, quantity, rate, value, taxes with nomenclature – CGST, SGST, UGST, IGST mentioned separately, HSN Code / SAC Code etc.</p> <p>2. Reimbursement of GST amount will be made only upon completion of the following:</p> <ol style="list-style-type: none"> <li>i. Bidder declaring such invoice in their GSTR-1 Return/ IFF</li> <li>ii. Receipt of Goods or Services and Submission of Tax invoice by BHEL</li> <li>iii. The tax invoice is reflected in the GSTR2B of BHEL, HPEP (buyer). Payment of GST will be made only if it is matching with data uploaded by the Bidder in GST portal.</li> </ol> <p>3. In case of discrepancy in the data uploaded by the bidder in the GSTN portal vis-a-vis the tax invoice or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit. The same would be available in PRADAN Portal for the bidder's information. Bidder has to rectify the data discrepancy in the GSTN portal or issue credit note or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims for processing of such invoices.</p> <p>4. In cases where invoice details have been uploaded by the bidder but failed to remit the GST amount to GST Department within stipulated time, then GST on the invoices in default will be recovered from the bidder along with the applicable interest.</p> <p>5. In case GST credit is delayed/denied to BHEL due to non/delayed receipt of goods and/or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, such GST amount will be recoverable from bidder along with interest levied/ leviable on BHEL.</p> <p>6. GST TDS deducted as per GST Act, is uploaded in GSTN portal along GSTR7. Bidders can directly download the GST TDS Certificate from the GSTN Portal.</p> <p>7. Bidders to note that Rules &amp; Regulations pertaining to E-way bill system are to be strictly adhered to, as and when notified by Govt. authorities.</p> <p>8. Vendors who fall under the E-Invoice regulations, i.e., having an annual turnover of Rs. 10 crores (<b>Rs 5 crore w.e.f 01.08.2023</b>) in the previous year shall issue e-invoice in line with Rule 48(4) of CGST Rules failing which GST amount will not be reimbursed to the vendor even if the other requirements are fulfilled.</p> <p>9. In case the vendor is exempted by the GST department under the Rule 48(4) of CGST Rules from issuing E-invoice, a declaration as prescribed in the Notification 17/2022 - Central Tax dated 01-08-2022 shall be provided on the invoice.</p> <p>10. Vendors who do not fall under the E-Invoice regulations, i.e., whose annual turnover is less than Rs. 10 crores (<b>Rs 5 crore w.e.f 01.08.2023</b>) in the previous year have to give an undertaking indemnifying BHEL that the vendor is not falling under the E-invoice requirement category and that in case of any breach of this E-invoicing requirement, the vendor indemnifies BHEL of any consequences that may arise due to such a breach.</p> <p>11. No GST shall be levied on liquidated damages / penalty.</p>	



B.	<p><b>Foreign Purchase ( Imports )</b></p> <p>The offered price shall be inclusive of all the Taxes and duties as applicable in country of export / country of dispatch for the quoted price. Taxes deducted at source: a. In case of goods or services subject to Income tax in India, such tax as per the extant statute shall be recovered. b. In case bidder does not provide necessary documents for beneficial taxation (Refer clause 7-B-(ix) a-c of ITB), the TDS deduction shall be at the maximum percentage stipulated as per the provisions of Income Tax Act.</p>		<b>Non Deviatable</b>
<b>12 Payment Terms: Unless otherwise specified in SCC, following shall be the terms of Payment.</b>			
A	<p>Indigenous: a. Micro &amp; Small Enterprises (MSEs) - 100% Direct EFT payment within 45 days b. Medium Enterprises - 100% Direct EFT payment within 60 days c. Non MSME Bidders - 100% direct EFT Payment within 90 Days Note A. Above due date is reckoned from the date of Receipt of material or 15 days from the date of submission of complete set of documents as per PO whichever is later. Objections, if any on the invoice, available on SUVIDHA portal need to be closed. In such instances, due date is reckoned from the closure of objections. Vendors are advised to get familiarized with the document exchange feature on SUVIDHA portal. Payment will be made for Material accepted value. B. MSEs (covered under MSME Act) need to register and renew periodically and update the same with BHEL C. The taxes that are reimbursed are limited to applicable taxes as on the Purchase Order delivery date or the amount actually paid whichever is less. D. Adherence to the above time schedule of payment is contingent upon Bidder complying with GST provisions and availment of Input Tax Credit by BHEL before the date of payment. E. In case of packaged items, 10% of supply value will be retained till completion of total supplies. F. Bidders to comply with clause 11 on GST requirements G. MSE benefits are not applicable to Traders / Wholesalers registered as MSEs. G. MSME vendors may avail the facility of invoice discounting through Trade Receivables Discounting System(TREDs) platforms like RXIL, INVOICEMART, M1XCHANGE and any other platforms onboarded from time to time.</p>		
B	<p><b>Imports:</b> i) 100% payment (less Indian Agency Commission, if any) shall be through Wire Transfer with a credit period of 45 days - Cash Against Documents (CAD) ii) In case Bidder opts for Letter of Credit payment, the LC Usance period shall be 90 days with respective bank charges to respective accounts and loading of 0.50% iii) Indian Agency commission if payable and so specified in the Purchase order shall be paid in Indian Rupees, considering the SBI TT selling exchange rate, as on the date of payment after successful completion of the contract.</p>		
C	<p><b>Conditions for LC:</b> a. LC validity period will be 90 days and for any extension, applicable charges will be to bidder's account. b. LC will be opened after successful completion of pre dispatch inspection prior to the scheduled / agreed delivery date. LC will be opened within 15 bank working days from the date of request.</p>		<b>Non Deviatable</b>
D	<p><b>Conditions for both Indigenous &amp; Foreign Bidders:</b> a. In case Bidders insist for lesser Credit period and BHEL accepts, a loading of 0.60% for every 15 days reduction will be applicable. b. In case PBG as required is not furnished, Payment will be released deducting the BG amount, which will be paid after expiry of warranty period against submission of supplementary claim. c. Payment does not imply in any respect whatsoever a waiver of Buyer's right to performance of the Order. Buyer is entitled to set off claimable debts against claimable liabilities with the bidder by means of a setoff Note.</p>		<b>Non Deviatable</b>
E	<p>Wherever EMD is applicable, the EMD will be paid back to unsuccessful bidders within fifteen days after award of the contract. Successful bidder's EMD will be retained till submission of Performance Bank Guarantee (PBG). Tender Fee wherever applicable is not refundable. No interest shall be payable by BHEL on earnest money or security deposit or any money due to the contractor by BHEL.</p>		<b>Non Deviatable</b>



13	<b>Penalty clause:</b>		
	<p>In the event of delay in supply /part-supply of goods, Penalty as detailed below is leviable</p> <p>a. Penalty of 0.5% per week or part there of shall be levied, limited to a max of 10% (ten percent) of delayed portion value / order value (as specified in SCC).</p> <p>b. Penalty applicable for delay in documentation is as per SCC.</p> <p>c. Date Reckoned for Penalty</p> <ul style="list-style-type: none"> <li>- Indigenous Orders with delivery terms FOR HPEP: C Note date.</li> <li>- Indigenous Orders (Others): Date of e-waybill.</li> <li>- Imports: For CIP/CIF Orders: IGM date</li> <li>- Imports: For FOB Orders: AWB / BL date</li> <li>- Imports: <ul style="list-style-type: none"> <li>For FCA Orders: <ul style="list-style-type: none"> <li>Date of acknowledgement from Freight Forwarder.</li> </ul> </li> <li>For Ex Work Orders (both air and sea): <ul style="list-style-type: none"> <li>Latest of Air Freight Request (AFR), Invoice, Packing List, Inspection date (if applicable) or any other documentary evidence confirming material readiness.</li> </ul> </li> </ul> </li> </ul> <p>d. In case of Deviation to above Penalty clause, loading applicable to the extent to which not agreed by Bidder.</p> <p>e. Timelines as mentioned in the Annexure 1 will be considered for reckoning delivery.</p>		
14	<b>Excess materials</b> supplied beyond tolerance limit as specified in PO will not be paid and bidder may raise credit note for the excess/unaccepted material as per GST law.		<b>Non Deviatable</b>
15	<b>Rejected materials</b> , if any, shall be collected by the bidder within 90 days of such communication to the bidder. Beyond this period the bidder forfeits their right to the materials.		<b>Non Deviatable</b>
16	<p><b>Guarantee / Warranty Period:</b></p> <p>Wherever required, and so provided in the specifications/SCC/Purchase Order, the bidder shall guarantee that the goods supplied shall comply with the specifications laid down, for materials, workmanship and performance.</p> <p>a. Guarantee period shall be 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier.</p> <p>b. In case erection &amp; commissioning is involved, guarantee period shall be 12 months from the date of commissioning.</p> <p>c. In case of equipment bought as a package which are intended to be incorporated in installations or systems, the guarantee period shall be 12 months from the date of commissioning of such equipment.</p> <p>The guarantee period shall be extended by the period during which the goods are not in compliance. If the delivery is found to be non-complaint, bidder shall replace, repair or re-execute the as requested by BHEL. If the bidder defaults on his obligations, buyer has the right to proceed to replace, repair or re-execute at the bidder's expense.</p> <p>A guarantee period as described above shall apply afresh to replaced, repaired or re-executed parts of a delivery.</p> <p><b>Loading for deviation:</b></p> <p>In case warranty specified in SCC is over and above the period mentioned in b &amp; c above; loading will be 1% per annum for the deviation in warranty end period, on the contract value. Expected commissioning period is as indicated in SCC.</p>		<b>Non Deviatable</b>
17	<p><b>PERFORMANCE BANK GUARANTEE (PBG) (Applicable in case mentioned in SCC)</b></p> <p>In case enquiry specifically spells out PBG requirement, PBG is to be submitted by Bidder in requisite format as per Annexure VII.</p> <p>Further detailing on PBG as specified in SCC.</p> <p>The PBG shall be for the performance of the goods and shall remain binding notwithstanding such variations, alterations or extensions of item as may be made, give, conceded or agreed to between the Bidder and BHEL under these Terms and conditions or otherwise.</p>		<b>Non Deviatable</b>

**NOTE: Deviations (Commercial as well as Technical) from the tender specifications and conditions are generally not acceptable. However, deviation if any, shall be brought out clearly with proper justification in the offer. The deviation, if considered by BHEL, shall be loaded for comparison, while evaluating the offer. If a bidder unconditionally withdraws any deviation before price bid opening, the same shall not be loaded. Loading criteria in respect of major commercial conditions where deviations if any are accepted shall be as per clause No.18. The Bidders may specifically note the following.**

18	<p><b>Evaluation and Loading Criteria:</b></p> <p>i) Evaluation Currency for this tender shall be "INR".                  ii) Evaluation of prices shall be done item-wise unless otherwise specified in the SCC.                  iii) Evaluation shall be on the basis of delivered cost, i.e. "Total Cost to BHEL" w.r.t the finalized technical scope and commercial conditions (after considering incidence of applicable taxes and duties and loading).                  iv) In the course of evaluation, if more than one Bidder happens to occupy L1 status, effective L1 will be decided by soliciting discounts from the respective L1 Bidders. In case more than one Bidder happens to occupy the L1 status even after soliciting discounts, the L1 Bidder shall be decided by a toss/draw of lots, in the presence of the respective L1 Bidders or their representatives. Ranking will be done accordingly. BHEL decision in such situations shall be final and binding.</p> <p><b>INDIGENOUS</b></p> <p>a. Bidder shall ensure to indicate the applicable taxes against each line item, failing which the same will be considered as inclusive/NIL.                  b. Ex-works offers received (as against FOR Destination mentioned in enquiry) shall be loaded by 2% of Ex-works value.                  c. GST and any other charges quoted will be added to the base price. However, in case input credit is available for GST (SGST, CGST/IGST), the same shall be excluded for arriving at "Total Cost to BHEL"</p> <p><b>IMPORTS</b></p> <p>For evaluation of offers in foreign currency, exchange rate (TT selling rate of State Bank of India) as on the date of bid opening (Part-I, in case of two-part bids) shall be considered. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken.                  In case of foreign Bidders, the quoted CIP price shall be loaded by the following factors to arrive at "Total Cost to BHEL":                  - Import duty as applicable on the date of Part-I bid opening.                   - Loading will be as per the table below</p> <table border="1"> <thead> <tr> <th></th> <th>Ex Works</th> <th>FOB/F CA</th> <th>CIF/C FR</th> <th>CIP</th> </tr> </thead> <tbody> <tr> <td>Foreign Inland freight and insurance</td> <td>2%</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Marine freight and marine insurance</td> <td>3%</td> <td>3%</td> <td></td> <td></td> </tr> <tr> <td>Destination Port handling charges</td> <td>0.50%</td> <td>0.50%</td> <td>0.50%</td> <td></td> </tr> <tr> <td>clearing charges &amp; inland freight and insurance</td> <td>2%</td> <td>2%</td> <td>2%</td> <td>2%</td> </tr> </tbody> </table> <p>COMMON LOADING FOR IMPORTS &amp; INDIGENOUS that will be added for arriving the "Total Cost to BHEL"                  A. Loading on Deviated Penalty clause shall be 10% or to the extent to which the bidder has opted for deviation.                  B. Loading for payment terms as per clause 12 of ITB                  C. Loading for deviation in Warranty &amp; PBG as per clause 16,17.</p>		Ex Works	FOB/F CA	CIF/C FR	CIP	Foreign Inland freight and insurance	2%				Marine freight and marine insurance	3%	3%			Destination Port handling charges	0.50%	0.50%	0.50%		clearing charges & inland freight and insurance	2%	2%	2%	2%
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19	<p>Procurement directly from the manufacturers/ suppliers shall be preferred. However, no agent shall be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer / supplier could bid directly but not both. In case bids are received from both from the manufacturer/ supplier and the agent, bid received from the agent shall be ignored.</p>																									
20	<p><b>RIGHT OF REJECTION /NON- PLACEMENT OF PO:</b> BHEL reserves the right to accept or reject any or all bid/s in full or part without assigning any reason whatsoever.</p>																									
21	<p><b>INTEGRITY PACT</b>                  Bidders shall have to enter into Integrity Pact with BHEL as per Annexure VI - for Tender value of rupees two crores and above and shall be signed by the authorized signatory along with the offer, failing which Bidder's offer will be rejected.</p>																									
22	<p><b>Public Procurement</b></p>																									
A	<p><b>Make in India</b>                  For this Procurement, the local content to categorize a bidder as a Class I local bidder / Class II local bidder / Non-Local bidder and purchase preference to Class I local bidder, is as defined in Public Procurement (Preference to Make in India) order No P-45021/2/2017-PP(BE-II) dated 04-06-2020 issued by DPIIT as amended from time to time.                  Proforma for self-certification for minimum local content and auditor's certification is given in Annexure III.</p>																									

<b>B</b>	Any Bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with competent authority. GOI website <a href="https://www.mea.gov.in/">https://www.mea.gov.in/</a> to be referred for latest details of competent authority and exemptions . Proforma for self-certification for compliance is given in Annexure IV.												
<b>C</b>	<b>Startups:</b> For Start-ups duly registered with DPIIT (Copy of certificate to be provided), condition of prior turnover and prior experience in Public Procurement may be relaxed subject to meeting of Quality and Technical Specifications. Startups are exempt from paying EMD.												
<b>23</b>	<b>Benefits earmarked for Purchase from Micro &amp; Small Enterprises (MSEs) – Indigenous Purchase</b>												
<b>A</b>	<p>All Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy are exempt from Paying EMD. NSIC/UDYAM registered bidders shall submit NSIC/UDYAM Certificate along with bid documents.</p> <p><b>Any Bidder falling under MSE category shall furnish the following details &amp; submit documentary evidence/ Govt. Certificate etc. in support of the same along with their techno-commercial offer.</b></p> <table border="1"> <thead> <tr> <th>Type under MSE</th> <th>SC/ST Owned</th> <th>Women Owned</th> <th>Others (excluding SC/ST &amp; Women Owned)</th> </tr> </thead> <tbody> <tr> <td>Micro</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Small</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>Note: If the bidder does not furnish the above in the tender, offer shall be processed construing that the bidder is not falling under MSE category.</b></p> <p>Date to be reckoned for determining the deemed validity will be the last date of Technical bid submission. Non- submission of such document will lead to consideration of their bid, at par with other bidders and MSE status of such bidders shall be shifted to Non- MSE Category till the bidder submits these documents.</p>	Type under MSE	SC/ST Owned	Women Owned	Others (excluding SC/ST & Women Owned)	Micro				Small			
Type under MSE	SC/ST Owned	Women Owned	Others (excluding SC/ST & Women Owned)										
Micro													
Small													
<b>B</b>	MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) and subsequent amendments & clarifications, if any. Documents NSIC/UDYAM Certificate submitted by the bidder shall be verified by BHEL for rendering the applicable benefits.												
<b>C</b>	If an enterprise falling under MSME category as defined in the Act, graduates to a higher category from its original category or beyond the purview of the Act, it shall continue to avail all non-tax benefits of its original category notified by the Ministry of Micro, Small and Medium Enterprise for a period of three years from the date of such graduation to the higher category.												
<b>D</b>	BHEL HPEP is registered with TReDS ( RXIL , M1XCHANGE , InvoiceMart ) platform. MSME bidders are requested to get registered with TReDS(RXIL / M1XCHANGE / InvoiceMart/ exchanges added from time to time ) platform to avail the facility as per the GOI guidelines.												
<b>24</b>	Inspection Measuring and Test Equipment (IMTE) used by the Bidder/ Contractor or sub-contractor shall be calibrated, maintained and controlled. Calibration shall be valid and IMTE maintained in sound condition during usage.												
<b>25</b>	ISO-9001, ISO14001 & OHSMS 45001 shall be complied.												
<b>26</b>	If BHEL registered supplier is not quoting against this NIT, supplier shall send regret letter positively with valid reasons for not participating. Repeated lack of response on the part of supplier may lead to deletion of such registered supplier from BHEL's approved supplier's list as per BHEL SEARP Guidelines.												
<b>27</b>	<p><b><u>BREACH OF CONTRACT, REMEDIES AND TERMINATION</u></b></p> <p><b>27.1 BREACH OF CONTRACT:</b></p> <p>The following shall amount to breach of contract:</p> <ol style="list-style-type: none"> <li>Non-supply of material/ non-completion of work by the Supplier/Vendor within scheduled delivery/ completion period as per contract or as extended from time to time.</li> <li>The Supplier/Vendor fails to perform as per the activity schedule and there are sufficient reasons even before expiry of the delivery/ completion period to justify that supplies shall be inordinately delayed beyond contractual delivery/ completion period.</li> <li>The Supplier/Vendor delivers equipment/ material not of the contracted quality.</li> <li>The Supplier/Vendor fails to replace the defective equipment/ material/ component as per guarantee clause.</li> <li>Withdrawal from or abandonment of the work by the Supplier/Vendor before completion as per contract.</li> <li>Assignment, transfer, subletting of Contract by the Supplier/Vendor without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.</li> <li>Non-compliance to any contractual condition or any other default attributable to Supplier/Vendor.</li> <li>Any other reason(s) attributable to Vendor towards failure of performance of contract. In case of breach of contract, BHEL shall have the right to terminate the Purchase Order/ Contract either in whole or in part thereof without any compensation to the Supplier/Vendor.</li> <li>Any of the declarations furnished by the contractor at the time of bidding and/ or entering into the contract for supply are found untruthful and such declarations were of a nature that could have resulted in non-award of contract to the contractor or could expose BHEL and/ or Owner to adverse consequences, financial or otherwise.</li> <li>Supplier/Vendor is convicted of any offence involving corrupt business practices, antinational activities or any such offence that compromises the business ethics of BHEL, in violation of the Integrity Pact entered into with BHEL has the potential to harm the overall business of BHEL/ Owner.</li> </ol> <p>Note- Once BHEL considers that a breach of contract has occurred on the part of Supplier/Vendor, BHEL shall notify the Supplier/Vendor by way of notice in this regard. Contractor shall be given an opportunity to rectify the reasons causing the breach of contract within a period of 14 days.</p> <p>In case the contractor fails to remedy the breach, as mentioned in the notice, to the satisfaction of BHEL, BHEL shall have the right to take recourse to any of the remedial actions available to it under the relevant provisions of contract</p>												



	<p><b>27.2 Remedies in case of Breach of Contract.:</b></p> <p>i. Wherein the period as stipulated in the notice issued under clause 27.1 has expired and Supplier/Vendor has failed to remedy the breach, BHEL will have the right to terminate the contract on the ground of "Breach of Contract" without any further notice to contractor.</p> <p>ii. Upon termination of contract, BHEL shall be entitled to recover an amount equivalent to 10% of the Contract Value for the damages on account of breach of contract committed by the Supplier/Vendor. This amount shall be recovered by way of encashing the security instruments like performance bank guarantee etc available with BHEL against the said contract. In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the Supplier/Vendor, retention amount, from the money due to the Supplier/Vendor etc. with BHEL) or the other legal remedies shall be pursued.</p> <p>iii. Wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:</p> <p>iv. In case the amount recovered under sub clause (a) above is not sufficient to fulfil the amount recoverable then; a demand notice to deposit the balance amount within 30 days shall be issued to Supplier/Vendor.</p> <p>v. If Supplier/Vendor fails to deposit the balance amount within the period as prescribed in demand notice, following action shall be taken for recovery of the balance amount:</p> <p>a). from dues available in the form of Bills payable to defaulted Supplier/Vendor against the same contract.</p> <p>b). If it is not possible to recover the dues available from the same contract or dues are insufficient to meet the recoverable amount, balance amount shall be recovered from any money(s) payable to Supplier/Vendor under any contract with other Units of BHEL including recovery from security deposits or any other deposit available in the form of security instruments of any kind against Security deposit or EMD.</p> <p>vi. In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier/Vendor.</p> <p>vii. It is an agreed term of contract that this amount shall be a genuine pre-estimate of damages that BHEL would incur in completion of balance contractual obligation of the contract through any other agency and BHEL will not be required to furnish any other evidence to the Supplier/Vendor for the purpose of estimation of damages.</p> <p>viii. In addition to the above, imposition of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.</p> <p>ix. Non-performance of contract attracts penal provisions in line with BHEL guidelines for Suspension of Business Dealings (SBD).</p> <p>Note: 1) The defaulting Supplier/Vendor shall not be eligible for participation in any of the future enquiries floated by BHEL to complete the balance work. The defaulting contractor shall mean and include:</p> <p>(a) In case defaulted Supplier/Vendor is the Sole Proprietorship Firm, any Sole Proprietorship Firm owned by same Sole Proprietor.</p> <p>(b) In case defaulted Supplier/Vendor is The Partnership Firm, any firm comprising of same partners/ some of the same partners; or sole proprietorship firm owned by any partner(s) as a sole proprietor.</p>
28	Any other terms and conditions of the bidder attached / referred against the tender enquiry will not be considered.
29	All drawings, patterns and tools supplied by BHEL or made at BHEL's expense are BHEL's property. These cannot be used or referred to any other party and must be used only in the execution of BHEL's orders.
30	Any amount payable by the bidder under any of the conditions of this contract shall be liable to be adjusted against any amount payable to the bidder under any other work / contract awarded by BHEL HPEP or any other BHEL Units. This is without prejudice to any other action as may be deemed fit by BHEL.
31	The bids of the bidders who are on the banned list and also the bids of the bidders, who engage the services of the banned firms, will be rejected. The list of firms banned by BHEL is available on BHEL web site: <a href="http://www.bhel.com">www.bhel.com</a>
32	<b>Ordering and confirmation of order</b>
	<p>The bidder shall send the order acceptance within one week from the date of LOI/Purchase order or such other period as specified/agreed by the Buyer. Buyer reserves the right to revoke the order placed if the order confirmation differs from the original order placed. Buyer shall be legally bound, only if agreed for any deviation explicitly in writing. The acceptance of deliverables or supplies by Buyer as well as payments made in this regard shall not imply acceptance of any deviations. The Purchase order will be deemed to have been accepted if no communication to the contrary is received within one week (or the time limit as specified /agreed by the Buyer) from the date of P.O.</p> <p>Buyer, is at liberty to send signed P.O. through electronic media such as e-mail and the receipt of which shall be treated as receipt of order.</p>
33	<b>Execution</b>
	The whole contract is to be executed in the most workman like manner, substantial and approved as per the contracted terms.
34	<b>Progress Report</b>
	<p>The bidder shall render such report as to the progress of work and in such form as may be called for by the Buyer from time to time. The submission and acceptance of such reports shall not prejudice the rights of the buyer in any manner. Bidder shall communicate to BHEL immediately, the change of address, ownership, contact person(s), the mobile numbers and e-mail of the dealing person concerned.</p> <p>Milestones shall be periodically updated by bidder through PRADAN Portal (<a href="https://hpep.bhel.com/mm/">https://hpep.bhel.com/mm/</a>). Non updation will adversely affect service rating of bidder performance.</p>



<b>35</b>	<b>Non-disclosure Obligations</b>
	<p>Drawings, technical documents or other technical information received by one party shall not without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are confidential and binding only to the extent that they are by reference expressly included in the contract.</p> <p>The bidder shall, as per agreed date/s but not later than the date of delivery, provide free of charge any information and/or drawings which are necessary to permit the Buyer to erect, commission, operate and maintain the product. Such information and drawings shall be supplied as specified in technical specification.</p> <p>All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the contract shall continue to be the property of the submitting party.</p> <p>The bidder shall provide Buyer with all information pertaining to the delivery in so far as it could be of importance to Buyer. The bidder shall not reveal confidential information to its own employees not involved with the tender/contract and its execution and delivery or to third parties, unless Buyer has agreed to this in writing beforehand. The bidder shall not be entitled to use the Buyer's name in advertisements and other commercial publications including website without prior written permission from Buyer.</p> <p>In the event of violation of the confidentiality as agreed, BHEL will take legal action as deemed fit. Non-disclosure agreement to be entered as per <b>Annexure- II</b> wherever applicable.</p>
<b>36</b>	<b>Inspection and Testing</b>
<b>A</b>	The goods and stores shall be manufactured by approved quality system and each part/component may be inspected and tested by the Buyer prior to shipment and shall comply with relevant requirements. Buyer has the right to inspect at any stage during manufacture/ delivery.
<b>B</b>	<p>Buyer or his authorized representative shall be entitled at all reasonable times during execution to inspect, examine and test at the bidder's premises the material and workmanship of all stores to be supplied under the contract, and if the part of the stores are being manufactured at other premises, the bidder shall obtain for buyer or his authorized representative permission to inspect, examine and test as if the said stores are being manufactured at the bidder's premises. Such inspection, examination and testing, if made shall not release the bidder from any obligation under the contract.</p> <p>For indigenous bidders all costs related to first inspection request shall be borne by the buyer and the cost of subsequent inspections due to non-readiness of material/rework/ rejections shall be borne by the bidder. In case of imports all inspection charges including third party inspections if any shall be borne by the bidder. The cost of inspection staff/third party specified by the Buyer shall be borne by bidder unless otherwise specifically agreed. If the contract provides for tests on the premises of the bidder or any of his sub-contractor/s, bidder shall be responsible to provide such assistance, labor, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently.</p> <p>Cost of any type test or such other special tests shall be borne by the bidder unless otherwise specifically agreed in the contract.</p> <p>The Bidder shall give the authorized representative of the buyer reasonable notice in writing of the date on and the place at which any stores will be ready for inspection/ testing as provided in the Contract. Annexure – I, may strictly be complied with or the time lines. Any delay in submission of the documents by the bidder will not alter the delivery date.</p>
<b>37</b>	<b>Quality and Condition of the Deliverables</b>
	The bidder shall be responsible for compliance with applicable technical, safety, quality, environmental requirements and other regulations in relation to products, packaging and raw and ancillary materials.
<b>38</b>	<b>Packaging and Dispatch</b>
	<p>The bidder shall package the deliverables safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by sea/air/rail/road to its destination suitably protected against loss, damage, corrosion in transit and the effect or tropical salt laden atmosphere. The packages shall be provided with fixtures/hooks and sling marks as may be required for easy and safe handling by mechanical means. Special packaging conditions/ environmental conditions as defined in the NIT shall be fully complied.</p> <p>Each package must be marked with consignee name, address, P.O. number, Package Number, gross weight &amp; net weight, dimensions (Lx B x H) and bidder's name. The packing shall allow for easy removal and checking of goods on receipt and comply with carrier's conditions of packing or established trade practices. Packing list for goods inside each package with P.O. item No. &amp; quantity must also be fixed securely outside the box to indicate the contents. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols/instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.</p>
<b>39</b>	<b>Contract variations; Increase or decrease in the scope of supply</b>
	<p>Buyer may vary the contracted scope during execution due to exigencies of project requirement.</p> <p>If the bidder is of the opinion that the variation has an effect on the agreed price or delivery period, Buyer shall be informed of this immediately in writing along with technical details, and in the event of additional work, submit a quotation with regards to the price and period involved, as well as the effect this additional work will have on the other work to be performed by the bidder. Wherever unit rates are available in the contract, the same shall be applied to such additional work. The bidder shall not perform additional work before buyer has issued written instructions/amendment to the purchase order to that effect.</p> <p>The work which the bidder should have or could have anticipated in terms of delivering the service (s) and functionality (ies) as described in this agreement should be executed by the bidder without any price implication.</p> <p>In case of no change in the scope / technical specifications, bidder shall endeavor to keep the material ready and intimate the same to BHEL within the contractual delivery date, failing which, the delay if any will be attributed to supplier, and any upward price variation thereof for delivery at a later date is not admissible.</p>
<b>40</b>	<b>Rejected/Short shipments/ warranty/guarantee replacements</b>
	In case of any short shipment during initial supply which is subsequently dispatched by the bidder or any guarantee / warranty replacements shall be dispatched on "DDP-Delivered duty paid BHEL stores" basis for imported items and "FOR-BHEL Stores/designated destination" basis for indigenous items.



41	<b>Export Administration Regulations</b>
	If a delivery includes such technology and / or supply that is subjected to the export regulations the bidder shall obtain due permissions, approvals, license etc.
42	<b>Force Majeure</b>
	<p>The bidder shall not be considered in default if delay occurs due to causes beyond their control such as Acts of God, Natural calamities, Fire, Frost, Flood, Civil War, civil commotion, riot, Government Restrictions.</p> <p>Only those causes that have duration of more than seven days shall be considered cause of force majeure. Notification to this effect duly certified by local chamber of commerce/statutory authorities with supporting documents shall be given by the bidder to BHEL by registered letter/courier service immediately without loss of time.</p> <p>In the event of delay due to such causes the delivery schedule shall be extended for a length of time equal to the period of Force Majeure or at the option of BHEL the order may be cancelled. Such cancellation would be without any liability whatsoever on the part of BHEL.</p> <p>In the event of such cancellation the bidder shall refund any amount advanced or paid to the bidder by BHEL and deliver back any material issued to him by BHEL and release facilities, if any provided by BHEL.</p>
43	<b>Non-waiver of Defaults</b>
	If any individual provision of the contract is invalid, the other provisions shall not be affected.
44	<b>Settlement of Disputes</b>
	<p>Except as otherwise specifically provided in the contract, all disputes concerning questions of the facts arising under the contract, shall be decided by the Buyer, subject to written appeal by the bidder to the buyer, whose decision shall be final. Any disputes of differences shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration</p> <p>The bidder shall continue to perform the contract, pending settlement of disputes(s).</p>
45	<b>Conciliation clause</b>
	<p>CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILIATION SCHEME, 2018: The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract or the Memorandum of Understanding, penalty deduction, time extension), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.</p> <p>The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure in <a href="http://www.bhel.com/index.php/story_details?story=2454">http://www.bhel.com/index.php/story_details?story=2454</a> .</p> <p>The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this ITB</p>
46	<b>ARBITRATION</b>
	<p>46.1 Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 45 herein above or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, refer the disputes to IAMC (International Arbitration and Mediation Centre, Hyderabad) and such dispute to be adjudicated by Sole Arbitrator appointed in accordance with the IAMC Rules.</p> <p>46.2 A party willing to commence arbitration proceeding shall invoke Arbitration Clause by giving notice to the other party in terms of section 21 of the Arbitration &amp; Conciliation Act, 1996 (hereinafter referred to as the 'Notice') before referring the matter to IAMC. The Notice shall be addressed to the Head of the Unit, BHEL, executing the Contract and shall contain the particulars of all claims to be referred to arbitration with sufficient detail and shall also indicate the monetary amount of such claim including interest, if any.</p> <p>46.3 After expiry of 30 days from the date of receipt of aforesaid notice, the party invoking the Arbitration shall submit that dispute to IAMC and that dispute shall be adjudicated in accordance with their respective Arbitration Rules. The matter shall be adjudicated by a Sole Arbitrator who shall necessarily be a Retd Judge having considerable experience in commercial matters to be appointed/nominated by the respective institution. The cost/expenses pertaining to the said Arbitration shall also be governed in accordance with the Rules of the respective Arbitral Institution. The decision of the party invoking the Arbitration for reference of dispute to a specific Arbitral institution for adjudication of that dispute shall be final and binding on both the parties and shall not be subject to any change thereafter. The institution once selected at the time of invocation of dispute shall remain unchanged.</p> <p>46.4 The fee and expenses shall be borne by the parties as per the Arbitral Institutional rules.</p> <p>46.5 The Arbitration proceedings shall be in English language and the seat and venue of Arbitration shall be Hyderabad.</p> <p>46.6 Subject to the above, the provisions of Arbitration &amp; Conciliation Act 1996 and any amendment thereof shall be applicable. All matters relating to this Contract and arising out of invocation of Arbitration clause are subject to the exclusive jurisdiction of the Court(s) situated at Hyderabad.</p> <p>46.7 Notwithstanding any reference to the Designated Engineer or Conciliation or Arbitration herein, a. the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree. Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any Settlement Agreement has been signed between the Employer and the Contractor.</p> <p>46.8 It is agreed that Mechanism of resolution of disputes through arbitration shall be available only in the cases where the</p>



	<p>value of the dispute is less than Rs. 10 Crores.</p> <p>46.9 In case the disputed amount Claim, Counter claim including interest is Rs. 10 crores and above, the parties shall be within their rights to take recourse to remedies other than Arbitration, as may be available to them under the applicable laws after prior intimation to the other party. Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof as amended from time to time, shall apply to the arbitration proceedings under this clause.</p> <p>46.10 In case, multiple arbitrations are invoked (whether sub-judice or arbitral award passed) by any party to under this contract, then the cumulative value of claims (including interest claimed or awarded) in all such arbitrations shall be taken in account while arriving at the total claim in dispute for the subject contract for the purpose of clause 46.9. Disputes having cumulative value of less than 10 crores shall be resolved through arbitration and any additional dispute shall be adjudicated by the court of competent jurisdiction.</p> <p>In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs &amp; Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 05/0003/2019-FTS-10937 dated 14-12-2022 as amended from time to time.</p>																
47	<p><b>Applicable Laws and jurisdiction of Courts</b></p> <p>This contract shall be governed by the Law for the time being in force in the Republic of India. Subject to clause 46 of this contract, the Civil Court having original Civil Jurisdiction at Hyderabad, shall alone have exclusive jurisdiction in regard to all matters in respect of the Contract.”</p>																
48	<p><b>BHEL-Fraud prevention policy shall be adhered to.</b></p> <p>The Bidder along with its associate/ Collaborators/ Sub-contractors/ sub-bidders/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention policy displayed on BHEL Website <a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice. List of nodal officers is hosted on BHEL Hyderabad website <a href="https://hpep.bhel.com/">https://hpep.bhel.com/</a>.</p>																
49	<p><b>Suspected Cartel Formation</b></p> <p>The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case , the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies / guidelines .</p>																
50	<p><b>Treatment of cases regarding conflict of interest:</b></p> <p>The bidder notes that a conflict of interest would said to have occurred in the tender process and execution of the resultant contract, in case of any of the following situations:</p> <ul style="list-style-type: none"> <li>i) If its personnel have a close personal, financial, or business relationship with any personnel of BHEL who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of BHEL directly or indirectly;</li> <li>ii) The bidder (or his allied firm) provided services for the need assessment/procurement planning of the Tender process in which it is participating;</li> <li>iii) Procurement of goods directly from the manufacturers/ suppliers shall be preferred. However, if the OEM/ Principal insists on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both. In case bids are received from both the manufacturer/supplier and the agent, bid received from the agent shall be ignored. However, this shall not debar more than one Authorized distributor (with/ or without the OEM) from quoting equipment manufactured by an Original Equipment Manufacturer (OEM) in procurements under a Proprietary Article Certificate.</li> <li>iv) A bidder participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as a partner/ JV member or sub-contractor in another bid or vice-versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of an entity as a subcontractor in more than one bid if he is not bidding independently in his own name or as a member of a JV. The Bidder declares that they have read and understood the above aspects, and the bidder confirms that such conflict of interest does not exist and undertakes that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s), in this regard. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.</li> </ul> <p><b>In case, the Bidder is found having indulged in above activities, the same will be considered as a violation of the tender conditions, and suitable action shall be taken by BHEL as per extant policies/guidelines.</b></p>																
51	<p><b>Escalation Matrix</b></p> <table border="1"> <thead> <tr> <th>Details</th> <th>Name</th> <th>Contact Number</th> </tr> </thead> <tbody> <tr> <td>Authorised representative</td> <td></td> <td></td> </tr> <tr> <td>Technical In-charge</td> <td></td> <td></td> </tr> <tr> <td>Finance and Taxation</td> <td></td> <td></td> </tr> <tr> <td>Escalation for above</td> <td></td> <td></td> </tr> </tbody> </table>		Details	Name	Contact Number	Authorised representative			Technical In-charge			Finance and Taxation			Escalation for above		
Details	Name	Contact Number															
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Technical In-charge																	
Finance and Taxation																	
Escalation for above																	



52	<b>Grievance Redressal Mechanism</b>
	<p>To promote transparency and ensure fair treatment of all bidders, a structured Grievance Redressal Mechanism is in place to address any concerns or issues arising during the tendering process or in subsequent business dealings with the company. Suppliers/Contractors are requested to follow the below escalation process for grievance resolution:</p> <ol style="list-style-type: none"><li>1. First Level: Any grievance should initially be addressed to the designated Dealing Officer, whose contact details are provided in the Notice Inviting Tender (NIT)/Contract.</li><li>2. Second Level: If the issue remains unresolved, it may be escalated by lodging a formal grievance through the SUVIDHA Portal: <a href="https://suvidha.bhel.in/suvidha/">https://suvidha.bhel.in/suvidha/</a>. Responses will be provided in accordance with the defined escalation matrix.”</li></ol>

Note: Purchase officer has to fill Annexure-I while sending enquiry

**( Attachment to Enquiry No. XXXXXXXXXX Due on Date XX.XX.XXXX**

**Special Conditions of Contract ( SCC )**

Rev 01

Sl.No	ITB Clause No.	Clause	Available Options	BHEL requirements	Bidder response
1	3	Mode of Submission	Conventional / E-Procurement		
2	5	Type of Bid	Single part / Two Part / Three Part		
3	6	Indigenous purchase - Destination	BHEL, RCPuram, Hyderabad / Site		
4			Destination in case of Site		
		Mode of Shipment	Air / Sea		
5		Imports purchase - Destination	Mumbai / Navasheva / Hyderabad / Others		
6		Freight	Customer / BHEL / Vendor		
7		Insurance	Customer / BHEL / Vendor		
8			<b>Basic Custom Duty</b>	Project Imports/ Concessional Duty / Merit Duty / Nil / Others Duty Structure	
9	9	Price validity	_____ days		
		Optional Spares price validity	_____ Months / years from the date of _____		
10	8	Delivery Period	_____ weeks / _____ Months ( Staggered delivery to be detailed )		
11	18	Evaluation basis	Itemwise / Total		
12	Others	Quantity Split	Splittable / Non-Splittable		
13			(Tabulation for splitting to be detailed )		
14	9	Price Variation Clouser (PVC)	Applicable / Not applicable		
15	12	Payments Terms	Inland Letter of Credit (ILC) In case Bidder opts for ILC Payment, the LC Usance period shall be 120 days with all charges to bidder's account and loading of 0.50%. Note : Wherever it is felt commercially prudent to include Inland Letter of Credit (ILC) payment term, a separate note, before publishing tender, with proper justification for inclusion of ILC payment terms to be concurred by Head of Finance and approved by Product/Functional Head (not less than GM).		
16		Tender cost	Applicable / Not applicable		
17		Earnest Money Deposit (EMD)	____ % of tender value / Not applicable		
18		E & C Supervision Charges	Applicable / Not applicable		
19			If applicable , max 2% of Total contract value .		
20		Bank Guarantee against milestone payment	(If envisaged to be detailed with % )		
21		Others	Contract execution Bank Guarantee	____ % of PO Value to be submitted after receipt of PO / Not Applicable	
22	17	Performance Bank Guarantee			
	7	Additional documentation for payment	Test / Warranty / Guaranty / O&M Manual etc.,		
24	13	Max Penalty applicable on	Delayed portion / Order value		
25	Others	Contract Specific Penalty Clause	including Documentation delay , Performance , E&C etc., to be detailed , considering Project , Unit , Set , etc.,		
26	16	Guarantee / Warranty Period	Applicable Clause a/b/c		
27		Contract Specific Guarantee / Warranty Period	Specific period if any to be detailed		
28	Others	Expected commissioning period	_____ months from the date of supply		
29	48	Detailed Billing Breakup (BBU)	Applicable / Not applicable		
30			(If applicable , Bidder shall provide detailed billing break-up in respect of the major items/components (stipulated in the tender) as part of offer .)		
31	Others	Customer approval of vendor	Applicable / Not applicable		
32		Drawing approval	Applicable / Not applicable		
33		QAP approval	Applicable / Not applicable		
34	36	Inspection by	BHEL / BHEL TPI / Vendor TPI / Customer		
35	Others	Financial / Commercial PQC	Applicable / Not applicable		
36			if Applicable to be detailed		

Note:

Special Conditions of Contract (SCC) shall be got approved by the Checklist approving authority, for all tenders.

Annexure-I			
Major Activity timelines shall be considered for indigenous purchases			
S No	Activity	Agency	Timeline
1	PO acknowledgement	Vendor	_____ days from PO
2	Submission of Drawings and QP	Vendor	_____ days from PO
3	Approval of Drawings and QP	BHEL/Customer	_____ days from PO
4	Raising of Inspection Call	Vendor	_____ days from PO
5	Inspection completion	Self/BHEL/Third party inspection agency	_____ days from inspection call date
6	Despatch Instructions	BHEL	_____ days from inspection report
7	Receipt of Material	Vendor	_____ days from Despatch instructions

Above is illustrative only. Purchase department can add more activities depending on nature of product/contracts

However absence of this annexure in NIT will entail non processing of delivery extension cases in case of delay in supplies of goods owing to reason attributable to BHEL.

(To be executed on Non- Judicial Stamp Paper for an appropriate value.  
To be stamped as an agreement)

(For Suppliers on Unit's / Division's PMD)

**ANNEXURE-II**

**Framework Confidentiality Agreement Cum Undertaking**

This Agreement made on this the \_\_\_\_\_ day of (month) \_\_\_\_\_ 20 \_\_\_\_ (“Effective Date”) by and between M/s. BHARAT HEAVY ELECTRICALS LIMITED, having registered office at “BHEL House”, Siri Fort, New Delhi – 110049 (India), acting through its \_\_\_\_\_ Unit (hereinafter may be referred to as “BHEL” or “the company”).

And

M/s. \_\_\_\_\_ (address) \_\_\_\_\_  
represented by authorized representative Sri \_\_\_\_\_ (herein after referred to as the “Supplier”).

The supplier and the company may, unless the context otherwise requires, hereinafter be collectively referred to as “Parties” or singly as the “Party”.

**RECITALS**

Whereas, BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable energy, Oil & Gas and Defence and providing associated services to varied customers in relation to which BHEL / its affiliates own valuable information of a secret and confidential nature.

Whereas the Company may, in connection with contract(s) (as defined hereunder) placed or to be placed upon the supplier, or otherwise, from time to time, make available, Technical Information as is defined hereunder.

And Whereas BHEL is willing to provide such Technical Information to the Supplier from time to time and the Supplier understands and acknowledges that such Technical Information is valuable for the Company and as such is willing to protect confidentiality of such information, subject to the terms and conditions set out hereunder.

Now therefore, in view of the foregoing premises and in consideration of the mutual covenants and agreements hereinafter set forth, the parties agree as under:

**1. Definitions:**

Unless the context so requires, in this Agreement, the following terms will bear the meaning ascribed to the said term in this clause.

- A. **“Contract”** means the contract entered into with a supplier and includes a Purchase Order, or a Work Order for procurement of any goods or for provision of any services.
- B. **“Effective Date”** means the date of this Agreement as mentioned in the preamble of this Agreement.
- C. **“Supplier”** includes a Contractor or a Vendor of the Company whether for supplying of goods or for providing any services under a Contract or both.
- D. **“Technical Information”** includes Drawings, and / or Product Standards and / or Specifications and / or Corporate / Plant Specifications and / or Technological Process Sheets and / or Technical Data Sheets and / or Jigs & Fixtures and / or Pattern & Dies and / or Special Gauges and / or Tools etc. Belonging to or wherein the Company has acquired from a third party a right of user and includes any improvement thereto from time to time whether carried out by the Company or by the Suppliers.
- E. **“Intended Purpose”** means the purpose for which the Technical Information is provided to the supplier under or in connection with a contract.
- F. **“Improvement”** includes any modification made to, or adaptation of, the Technical Information which enhances or is calculated to enhance the performance (Whether in terms of effectiveness or in terms of efficiency or both) of the product and / or the service to be provided by the Supplier under a Contract.

2. This Agreement shall come into force / deemed to have come into force, as the case may be, on the Effective Date; or, on the first date when the Technical Information or any part thereof is provided by BHEL to the supplier; whichever is earlier.

3. **Agreement deemed to be incorporated in each contract:** Unless and to the extent otherwise stipulated in the Contract, the conditions of this Agreement are deemed to be incorporated in all Contracts which may be entered into between the Company and the Supplier. Further, unless otherwise stipulated, the obligations under this Agreement are and will be independent of the obligations under the Contracts and such obligations of the Supplier hereunder will remain of full effect and validity notwithstanding that the period of validity of the Contract has expired by efflux of time stipulated therein; or, the contract has been discharged by performance or breach; or, the termination of the Contracts for any reason whatsoever.

**4. Ownership:**

4.1 The Company may, from time to time, make available to the Supplier, Technical Information on a non-exclusive basis by way of loan.

4.2 The Supplier acknowledges and agrees that all Technical Information and copies thereof that are or may be provided by the Company to the Supplier, are and shall remain the property of

BHEL or that of the concerned entity from whom BHEL has obtained the Technical Information and such Technical Information are and shall constitute trade secrets of the BHEL. Nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any patent, copyright or design or any other intellectual property rights of whatsoever description that subsists or may hereinafter exist in the Technical Information. Furthermore, nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the supplier any license or right of use of such patent, copyright or design or any other intellectual property rights of whatsoever description which may now or hereafter exist in the Technical Information except for use of the Technical Information strictly in accordance with this Agreement and the contract and / or as directed in writing by the Company, solely for the Intended Purpose under the Contract.

4.3 Neither party is obligated by or under this Agreement to purchase from or provide to the other party any service or product and that any such purchase / sale of any product and / or service by one party to the other party will be governed by the Contract if any, that may be entered into by and between the Company and the Supplier.

4.4 The Supplier is / has been made well aware and acknowledges that the Technical Information being / which may be shared with it by the Company has been either generated by the Company by incurring huge investment and cost or obtained from foreign collaborators under Technical Collaboration Agreement (TCA) with stringent confidentiality conditions.

4.5 The supplier agrees and undertakes to adhere to confidentiality requirements as applicable to BHEL under a TCA and also ensure that the confidentiality requirements are adhered to by all its concerned employees or sub-contractors /suppliers (where permitted to be engaged by BHEL). Any damages, losses, expenses of any description whatsoever, arising out of or in connection with a breach of the confidentiality requirements under a TCA owing to any act or omission on the part of the supplier or its employees or sub-contractors / suppliers that is claimed by a foreign collaborator from the Company shall be wholly borne by the Supplier and it shall keep BHEL fully indemnified in this behalf. The demand by the Company shall be conclusive upon the Supplier who shall thereupon forthwith pay to the Company without demur, dispute or delay the amount as demanded without demanding any further proof thereof.

4.6 The Supplier agrees and undertakes that unless so decided and advised by the Company in writing all rights / title to any Improvement to the Technical Information shall vest in the Company. The Supplier undertakes and agrees to inform forthwith to the Company of any such Improvement made to the Technical Information and transfer all drawings / documents or other materials connected with such Improvement to the Company and also agrees to fully cooperate with the Company for protecting the Company's interests in such Improvements

in the Technical Information including but not limited to obtaining necessary protection for the intellectual property rights in such improvement, if so desired by the Company. If a question arises whether a modification amounts to improvement to the Technical Information, the same shall be decided by the Company and such decision shall be final and binding upon the supplier.

## **5. Use and Non – Disclosure:**

5.1 Unless otherwise stipulated by the Company, all Technical Information made available to the supplier, by the Company shall be treated as Confidential irrespective of whether the same is marked or otherwise denoted to be Confidential or not.

5.2 The Supplier undertakes and agrees that the Technical Information in its possession shall be held in strict confidence and will be used strictly in accordance with this Agreement and solely for the Intended Purpose under the Contract. Use of the Technical Information for any other purpose other than Intended Purpose is prohibited.

5.3 In particular, the Supplier shall not use Technical Information or any Improvement in its possession for the manufacture or procurement of the product(s) or components or parts thereof or use the Technical Information or any portion thereof or any modification or adaptation thereof in any form to provide any product and / or service to any third party, without the prior written consent of the Company.

5.4 The Supplier shall not disclose any of such Technical Information to any third party without the prior written consent of the Company. The Supplier agrees that without prior written consent of the Company, the supplier shall not disclose to a third party about the existence of this Agreement, or of the fact that it is / was in possession of or has experience in the use of any Technical Information nor shall the Supplier share in any manner whatsoever, with a third party, the name or details of any Contract(s) awarded by the Company to it or performed by the Supplier or the scope of work thereof or share any document or correspondence by and between the Company and the supplier in or in connection with this Agreement or such Contract(s). Notwithstanding what is stated elsewhere, the overall responsibility of any breach of the confidentiality provisions under this Agreement shall rest with the Supplier.

5.5 This Supplier undertakes and agrees not to make copies or extracts of and not to disclose to other any or all of the Technical Information in its possession, except as follows:

(a) The Supplier may disclose the Technical Information to such of its officers and employees strictly to the extent as is necessary for such officer or employee for the Intended Purpose, provided that the Confidential Information (or copies thereof) disclosed shall be marked

clearly as the confidential and proprietary information of Company and that such officers and employees shall similarly be bound by undertakings of confidence, restricted use and non-disclosure in respect of the Technical Information. The Supplier shall be responsible for any breach of such confidentiality provisions by such officers and employees.

- (b) With the prior written consent of Company, the supplier may disclose for the Intended Purpose such Technical Information as is provided for in such consent to such of its professional advisers: consultants, insurers and subcontractors who shall be similarly bound by undertakings of confidence, restricted use and non-disclosure in respect of such Technical Information.
- (c) The Supplier shall not be prevented to make any disclosure required by (i) order of a court of competent jurisdiction or (ii) any competent regulatory authority or agency where such disclosure is required by law, provided that where the supplier intends to make such disclosure, it shall first consult Company and take all reasonable steps requested by it to minimize the extent of the Technical Information disclosed and to make such disclosure in confidence and also shall cooperate with the Company in seeking any protective order or any other remedy from proper authority in this matter.

## **6. Exceptions:**

The Obligations of the Supplier pursuant to the provisions of this agreement shall not apply to any Confidential Information that:

- a) was / is known to, or in the possession of the Supplier prior to disclosure thereof by the Company;
- b) is or becomes publicly known, otherwise than as a result of a breach of this agreement by the Supplier.
- c) is developed independently of the Disclosing party by the Supplier in circumstances that do not amount to a breach of the provisions of this Agreement or the Contract;
- d) is received from a third party in circumstances that do not result in a breach of the provisions of this Agreement.

- 7. The Obligation of maintaining confidentiality of the Technical Information on each occasion, shall subsist for the entire duration during which the Technical Information / equipment is in possession of the Supplier and shall thereafter subsist for a further period of \_\_\_\_\_ years from the date when the complete Technical Information has been returned in portions on different dates, the period of \_\_\_\_ years will be reckoned from the date when the last portion of the Technical Information has been returned. Notwithstanding the expiry of the confidentiality obligation, the obligation of the Supplier under clause 5.4 shall continue to subsist for a further period of \_\_\_\_\_ years.

## **8. Warranties & Undertakings:**

- a) The Supplier undertakes to ensure the due observance of the undertakings of confidence, restricted use and non-disclosure by its persons to whom it discloses or releases copies or extracts of the Technical Information.
- b) The Supplier shall keep the Technical Information or improvement made therein properly segregated and not mix up the same with any other material / documents belonging to him / it or to any other third party.
- c) The Supplier further undertakes that he / it shall not hypothecate or give on lease or otherwise alienate or do away with any of the Technical Information and / or equipment of the Company, made available to him / it, and undertakes that he / it shall hold the same as a trustee, in capacity of custodian thereof and use / utilise the same solely for the purpose of executing the contract awarded by the Company.
- d) The Supplier further undertakes that he / it shall return all the equipment and / or Technical Information as far as practicable in the same condition in which the same was made available to him / it by the Company together with any Improvement thereon and the documents connected with such Improvement, to the Company forthwith upon completion of the scope of work or contract for which such Technical Information was provided by the Company to it or as directed by the Company together with a confirmation by way of an affidavit or in such manner as directed by the Company that it has not retained any equipment and / or Technical Information / improvement thereof. In case any such equipment and / or Technical Information or thereof shall remain in his possession or is not capable of being returned, the retention and use of such Technical Information or improvement thereto shall continue to be governed by this Agreement.
- e) The Supplier undertakes to indemnify the Company for all the direct, indirect and / or consequential losses, damages, expenses whatsoever including any consequential loss of business, profits suffered by the Company owing to breach by the Supplier of its obligations under this Agreement and / or the confidentiality requirements, if any, contained in the Contract and that the Supplier hereby agrees that the decision of the Company in all such or any such matter/s shall be final and binding on the Supplier. On mere written demand of the Company, the Supplier shall forthwith and without demur or delay pay to the Company any such sum as determined by the Company as the amount of loss or damage or expense which has been suffered by the Company. The Supplier agrees that the Company shall be entitled to withhold and appropriate any amount payable to the Supplier under any Contract then existing between the Company and the Supplier, in case the Supplier fails to make payment, in terms of the written demand, within 7 days thereof. Without prejudice to the forgoing actions, in respect to any breach of this Agreement, the Company shall be entitled to take

any other action against the Supplier as per applicable laws, the Contract, Company's applicable policies, guidelines rules, procedures, etc.

9. Without prejudice to any other mode of recovery as may be available to the Company for recovery of the amount determined as due as per Clause 9 (f) hereinabove, the Company shall have a right to withhold, recovery and appropriate the amount due towards such losses, damages, expenses, from any amount due to the Supplier in respect of any other Contract (s) placed on him / it by any department / office / unit/ division of the said Company.

#### **10. Arbitration & Conciliation:**

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, penalty deduction, validity or execution of the Contract; time extension, or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration . Sole arbitrator to be appointed by Head of the Unit - BHEL, HPEP.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause.

The seat of arbitration shall be Sangareddy / Hyderabad, Telangana. The language of arbitration shall be English and the documents shall be submitted in English.

The cost of arbitration shall initially be borne equally by the Parties subject to the final apportionment of the cost of the arbitration in the award of the Arbitrator.

Subject to the arbitration in terms of clause 46 of ITB (clause 27 of ATC GeM), the courts at Sangareddy, Telangana State shall have exclusive jurisdiction over any matter arising out of or in connection with this contract.

Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

**ARBITRATION FOR CONTRACT WITH PUBLIC SECTOR ENTERPRISE (PSE) OR A GOVERNMENT DEPARTMENT**

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No 4(1)/2013-DPE(GM/FTS 1835 dated 22-05-2018

**CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILIATION SCHEME, 2018:** The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract or the Memorandum of Understanding, penalty deduction, time extension), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure in [http://www.bhel.com/index.php/story\\_details?story=2454](http://www.bhel.com/index.php/story_details?story=2454) . The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this ITB

**11. Governing Law & Jurisdiction:**

This agreement shall be construed and interpreted in accordance with the laws of India and shall have exclusive jurisdiction of Sangareddy/Hyderabad courts, Telangana, India.

**SIGNATURE**

**WITNESSES**

**1**

**Name:**

**Address:**

**2**

**Name:**

**Address:**

### **Annexure - III**

#### **Proforma for self-certification by Supplier for minimum local content on their letter head for tender value less than Rs 10 Crore**

"We \_\_\_\_\_ (Name of Manufacturer) undertake that we meet the mandatory minimum Local Content (LC) requirement i.e. \_\_\_\_\_ (to be filled as notified in the policy) for claiming Purchase Preference linked with Local Contents under the Govt. policy against tender no. \_\_\_\_\_."

**Auditor's certification with respect to minimum local content on the letter head of Statutory Auditor for tender value above Rs.10 crore**

"We \_\_\_\_\_ the statutory auditor of M/s \_\_\_\_\_ (name of the bidder) hereby certify that M/s \_\_\_\_\_ (name of manufacturer) meet the mandatory Local Content requirements of the Goods and/or Services i.e. \_\_\_\_\_ (to be filled as notified in the policy) quoted vide offer No. \_\_\_\_\_ dated \_\_\_\_\_ against BHEL's tender No. \_\_\_\_\_ by M/s \_\_\_\_\_ (Name of the bidder)."

## Annexure - IV

### **Proforma for self-certification by Supplier for Compliance to Clause No 20 (B)**

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and I certify that M/s.... (Name of firm) is **not from such a country/is from such a country** (delete whichever is NOT applicable) and has been duly registered with the Competent authority (delete if NOT applicable) . I hereby certify M/s ..... fulfills all requirements in this regard and is eligible to be considered . ( where applicable , valid registration by the competent authority shall be attached )

Sd/-

Authorised Signatory with Stamp

(On Company Letter Head)

FORM NO. 10F

[See sub-rule (1) of rule 21AB]

Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act, 1961

I..... son/daughter of Mr ..... in the capacity of.....  
(Designation) do provide the following information, relevant to the previous year **2021-22** in case of ..... for the purposes of sub-section (5) of section 90/section 90A:-

Sl.No.	Nature of information	Details
(i)	Status (individual; company, firm etc.) of the assessee	Company
(ii)	Permanent Account Number (PAN) of the assessee if allotted	
(iii)	Nationality (in the case of an individual) or Country or specified territory of incorporation or registration (in the case of others)	.....
(iv)	Assessee's tax identification number in the country or specified territory of residence and if there is no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory of which the assessee claims to be a resident	.....

(v)	Period for which the residential status as mentioned in the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A is applicable	<u>2022-23</u>
(vi)	Address of the assessee in the country or territory outside India during the period for which the certificate, mentioned in (v) above, is applicable	..... ..... .....

I have obtained a certificate to in sub-section (4) of section 90 of sub-section (4) of section 90A from the Government of..... (name of country or specified territory outside India)

Signature:.....  
Name:.....  
Address:.....  
Email ID:.....  
Contact Number.....  
Permanent Account Number:.....

Verification

I..... do hereby declare that to the best of my knowledge and belief what is stated above is correct complete and is truly stated. Verified today the..... day of.....

**In case the M/s Bharat Heavy Electricals Limited, HPEP, Ramachandrapuram, Hyderabad is declared as an assessee in default due to any misstatement or incorrect declaration, we indemnify M/s Bharat Heavy Electricals Limited from any ensuing consequences thereunder.**

Signature of the person providing the information

Place:.....

(On Company Letter Head)

No Business Connection or Permanent Establishment Certificate

Date

To

Bharat Heavy Electricals Limited  
Ramachandrapuram, Hyderabad  
India - 502032

Sir,

Sub: No Business Connection or Permanent Establishment declaration for FY **2021-22**

This is to certify that ..... (Name of the supplier) is a company incorporated in .....(country ) and does not have any business connection in India as per the provision of Section 9 of the Income Tax Act 1961 or any Permanent Establishment as defined in Article 5 of the India and .....(country) DTAA.

We hereby certify that we will notify BHEL in case of any change in the status as certified above.

For .....

Authorised Signatory

*(Note – Please refer definition of the Business Connection on reverse and Permanent Establishment in the relevant DTAA)*

"Business connection" as defined in Section 9 of the Income Tax Act shall include any business activity carried out through a person who, acting on behalf of the non-resident,—

- (a) has and habitually exercises in India, an authority to conclude contracts on behalf of the non-resident or habitually concludes contracts or habitually plays the principal role leading to conclusion of contracts by that non-resident and the contracts are—
  - (i) in the name of the non-resident; or
  - (ii) for the transfer of the ownership of, or for the granting of the right to use, property owned by that non-resident or that non-resident has the right to use; or
  - (iii) for the provision of services by the non-resident; or
- (b) has no such authority, but habitually maintains in India a stock of goods or merchandise from which he regularly delivers goods or merchandise on behalf of the non-resident; or
- (c) habitually secures orders in India, mainly or wholly for the non-resident or for that non-resident and other non-residents controlling, controlled by, or subject to the same common control, as that non-resident:

Provided that such business connection shall not include any business activity carried out through a broker, general commission agent or any other agent having an independent status, if such broker, general commission agent or any other agent having an independent status is acting in the ordinary course of his business :

Provided further that where such broker, general commission agent or any other agent works mainly or wholly on behalf of a non-resident (hereafter in this proviso referred to as the principal non-resident) or on behalf of such non-resident and other non-residents which are controlled by the principal non-resident or have a controlling interest in the principal non-resident or are subject to the same common control as the principal non-resident, he shall not be deemed to be a broker, general commission agent or an agent of an independent status

For the removal of doubts, it is hereby clarified with explanation-2A, that the significant economic presence of a non-resident in India shall constitute "business connection" in India and "significant economic presence" for this purpose, shall mean—

- (a) transaction in respect of any goods, services or property carried out by a non-resident in India including provision of download of data or software in India, if the aggregate of payments arising from such transaction or transactions during the previous year exceeds such amount as may be prescribed; or
- (b) systematic and continuous soliciting of business activities or engaging in interaction with such number of users as may be prescribed, in India through digital means:

Provided that the transactions or activities shall constitute significant economic presence in India, whether or not,—

- (i) the agreement for such transactions or activities is entered in India; or
- (ii) the non-resident has a residence or place of business in India; or
- (iii) the non-resident renders services in India:

Thresholds for the purposes of significant economic presence.

11UD. (1) For the purposes of clause (a) of Explanation 2A to clause (i) of sub-section (1) of section 9, the amount of aggregate of payments arising from transaction or transactions in respect of any goods, services or property carried out by a non-resident with any person in India, including provision of download of data or software in India during the previous year, shall be two crore rupees;

(2) For the purposes of clause (b) of Explanation 2A to clause (i) of sub-section (1) of section 9, the number of users with whom systematic and continuous business activities are solicited or who are engaged in interaction shall be three lakhs.

**INTEGRITY PACT****Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

**and**

\_\_\_\_\_, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

**Preamble**

The Principal intends to award, under laid-down organizational procedures, contract(s) for \_\_\_\_\_

\_\_\_\_\_ (hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

**Section 1- Commitments of the Principal**

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -
  - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

**Section 2 - Commitments of the Bidder(s)/ Contractor(s)**

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during participation in the tender process and during the contract execution.

BHEL-IP

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- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

### **Section 3 - Disqualification from tender process and exclusion from future contracts**

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process, terminate the contract, if already awarded, exclude from future business dealings and/ or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

### **Section 4 - Compensation for Damages**

- 4.1 If the Principal has disqualified the Bidder (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above , the Bidder(s)/ Contractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be-entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee , whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

**Section 5 - Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) years (to be reckoned from date of bid submission) with any other company in any country conforming to the anti-corruption approach in India that could justify his exclusion from the tender process. The date of such transgression, for the purpose of disclosure by the bidders in this regard, would be the date on which cognizance of the said transgression was taken by the competent authority. The transgression(s), for which cognizance was taken even before the said period of three years, but are pending conclusion, shall also be reported by the bidders.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason or action can be taken as per the separate "Guidelines on Suspension of Business dealings with Suppliers/ Contractors", framed by the Principal.

**Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)**

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of a joint venture, all the partners of the joint venture should sign the Integrity Pact. In case of Sub-contracting, the Principal Contractor shall be solely responsible for the adherence to the provisions of IP by the sub-contractor(s).
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

**Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

**Section 8 -Independent External Monitor(s)**

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact on receipt of any complaint by them from the bidder(s).
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as /Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.

- 8.5 The role of IEM is advisory and the advice of IEM is non-binding on the Organization. However, as IEMs are invariably persons with rich experience who have retired as senior functionaries of the government, their advice would help in proper implementation of the IP.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of the tendering process, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an examination, and submit their joint recommendations to the Management. In case the full panel is not available due to some unavoidable reasons, the available IEM(s) will conduct examination of the complaints. Consent of the IEM(s), who may not be available, shall be taken on record.
- 8.7 The IEMs shall examine all the representations/grievances/ complaints received by them from the bidders or their authorized representative related to any discrimination on account of lack of fair play in modes of procurement and bidding systems, tendering method, eligibility conditions, bid evaluation criteria, commercial terms & conditions, choice of technology/ specifications etc.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Principal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

### **Section 9 - Pact Duration**

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

### **Section 10 - Other Provisions**

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.

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- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. If required, the Principal may adopt any mediation rules for this purpose. However, not more than five meetings shall be held for a particular dispute resolution. The fees/expenses on dispute resolution shall be equally shared by both the parties. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as per the terms & conditions of the Contract.

-----  
 For & On behalf of the Principal  
 (Office Seal)

-----  
 For & On behalf of the Bidder/ Contractor  
 (Office Seal)

Place \_\_\_\_\_

Date \_\_\_\_\_

Witness: \_\_\_\_\_  
 (Name & Address) \_\_\_\_\_

Witness: \_\_\_\_\_  
 (Name & Address) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**BANK GUARANTEE FOR PERFORMANCE SECURITY**

Bank Guarantee No: .....

Date:

To

NAME

&amp; ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at \_\_\_\_\_ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) with its registered office at \_\_\_\_\_ hereinafter referred to as the 'Vendor / Contractor / Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated ..... valued at Rs..... (Rupees -----)/FC.....(in words.....) for ..... (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to .....% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

we, ..... (hereinafter referred to as the Bank), having registered/Head office at ..... and inter alia a branch at ..... being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs ----- (Rupees -----) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

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. \_\_\_\_\_.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor / Contractor / Supplier in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor / Contractor / Supplier shall have no claim against us for making such payment.

We the .....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 Contract/satisfactory completion of the performance ~~Hyderabad~~ ee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We .....BANK further agree with the Employer that the Employer 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 Contract or to extend time of performance by the said Vendor / Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor / Contractor / Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor / Contractor / Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor / Contractor / Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor / Contractor / Supplier 's liabilities.

This Guarantee shall remain in force upto and including..... and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the .....we shall be discharged from all liabilities under this guarantee thereafter.

This Bank Guarantee shall be governed, construed and interpreted in accordance with the laws of India.

Courts at ~~Hyderabad~~ shall alone have exclusive jurisdiction over any matter arising out of or in connection with this Bank Guarantee

We, ..... BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed.....
- b) This Guarantee shall be valid up to .....
- c) Unless the Bank is served a written claim or demand on or before \_\_\_\_\_ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, \_\_\_\_\_ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of  
(Name of the Bank)

Dated.....

Place of Issue.....

<sup>1</sup> NAME AND ADDRESS OF EMPLOYER I.e Bharat Heavy Electricals Limited

<sup>2</sup> NAME AND ADDRESS OF THE VENDOR/ CONTRACTOR/ SUPPLIER

<sup>3</sup> DETAILS ABOUT THE NOTICE OF AWARD/ CONTRACT REFERENCE

<sup>4</sup> CONTRACT VALUE

<sup>5</sup> PROJECT/ SUPPLY DETAILS

<sup>6</sup> BG AMOUNT IN FIGURES AND WORDS

<sup>7</sup> VALIDITY DATE

<sup>8</sup> DATE OF EXPIRY OF CLAIM PERIOD

**Notes:**

1. It is advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.
2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Contractor/sub-contractor /vendor/ Bank issuing the guarantee.
3. **In Case of Bank Guarantees submitted by Foreign Vendors-**

**a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)**

can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

**b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)**

**b.1** In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.

**b.2** In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.

**b.3** The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.