



# Bharat Heavy Electricals Limited

## Heavy Equipment Repair Plant

Tarna Shivpur Varanasi-221003

website: <https://herp.bhel.com>

Enquiry Number : **E-304-24-0239-61-1**      Date : **16/Jul/2024**

### Enquiry For Material :-

Sl No	Material Description	Material Code	Quantity	Unit
1	INNER CONE DRUM SECTION (HY-2.10) - FABRICATED AND FULLY M/CD AS PER DRG. 26137600038/09 WITH MATL AS PER DRG.	RV1019819448	24.0	NOS.

### Remarks

(A) SUPPLY CONDITION :

1. ITEM TO BE SUPPLIED AT HERP STORES.
2. PRE-DESPATCH INSPECTION SHALL BE CARRIED OUT AS PER QUALITY PLAN NO. RV/FAB&MCD/12 REV-03 AT PARTY'S WORKS BY BHEL REPRESENTATIVE.

(B) TECHNICAL DELIVERY CONDITION :

1. MATERIAL SHOULD BE AS PER SPECIFICATION MENTIONED ON THE DRG.
2. DIMENSIONS & TOLERANCES TO BE MAINTAINED AS PER DRAWING WITH REPORT.
3. WELDING SHOULD BE AS PER DRG.
4. NOTES OF THE DRG. SHOULD BE STRICTLY FOLLOWED.
5. DIMENSION REPORT IS REQUIRED.
6. DEF. SUPPORT SHOULD BE BUNCHED AND ATTACHED WITH WIRES WITH THE INNER CONE DRUM SECTION.

(C) TEST CERTIFICATE : REQUIRED FOR CHEMICAL AND MECHANICAL PROPERTIES FOR MS PLATE.

(D) GUARANTEE CERTIFICATE : REQUIRED FOR 24 MONTHS AGAINST ANY MANUFACTURING DEFECTS FROM THE DATE OF RECEIPT AT BHEL HERP.

(E) PACKING INSTRUCTIONS : ITEM TO BE SUPPLIED AFTER APPLYING THE RUST PREVENTIVE PAINT. HOLES SHOULD BE PROPERLY GREASED. ITEM SHALL BE SUPPLIED IN PROPERLY STACKED CONDITION ON TRUCK/TRAILOR.

(F) DELIVERY IS REQUIRED WITHIN 04 MONTHS FROM PO DATE. HOWEVER EARLY DELIVERY IS ACCEPTABLE.

(G) ALL OTHER TERMS AND CONDITIONS AS PER GTC.

INVENTORY NO. SIGN. AND DATE REF. DRG. NO. COMPUTER FILE NAME 26100038.DWG 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

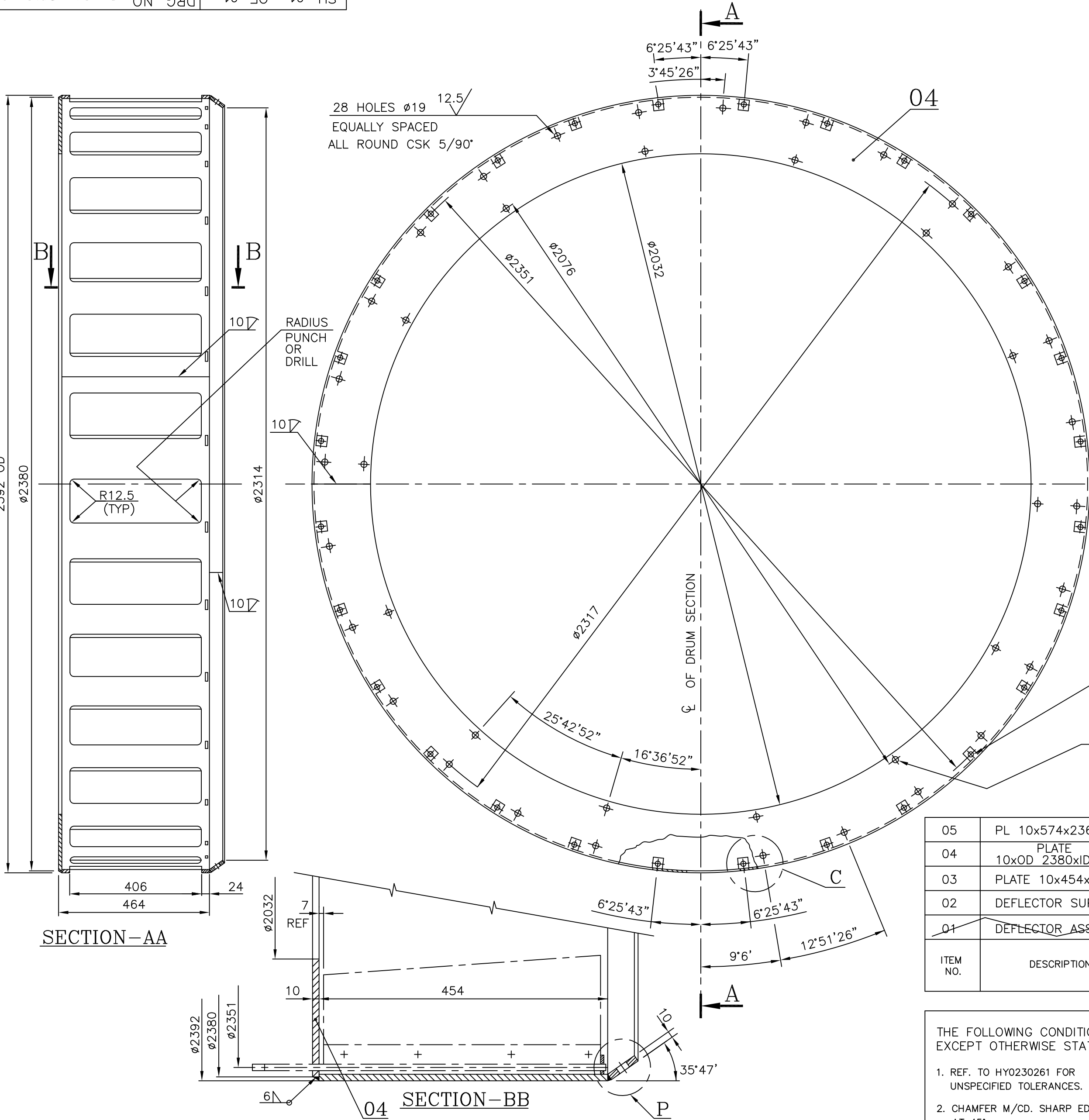
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. 2-61-376-00038

SH. 01 OF 01

GENERAL DIMENSIONAL LIMITS, FITS & TOLERANCES AS PER HY0230261

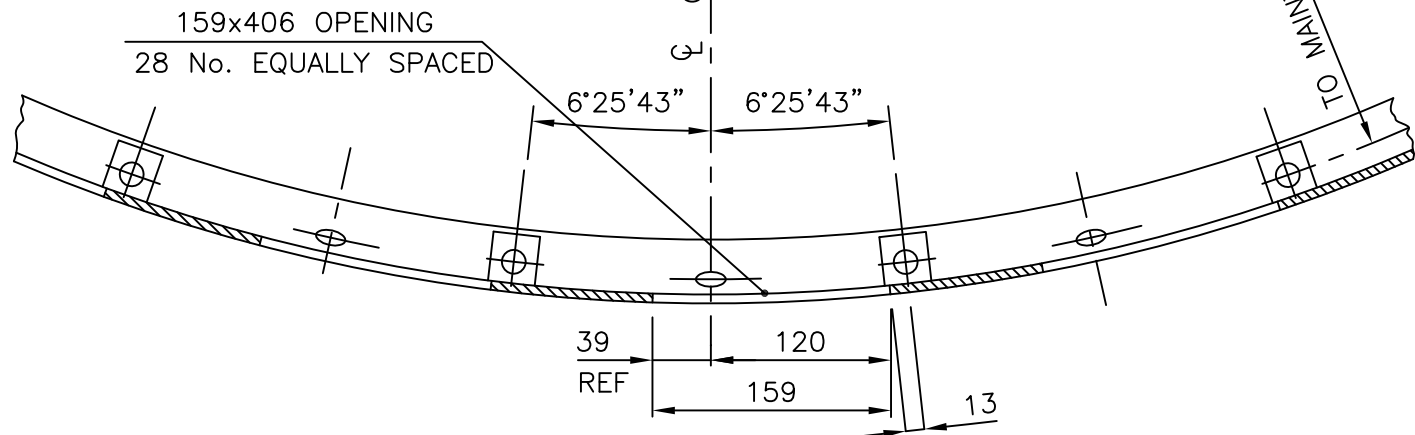
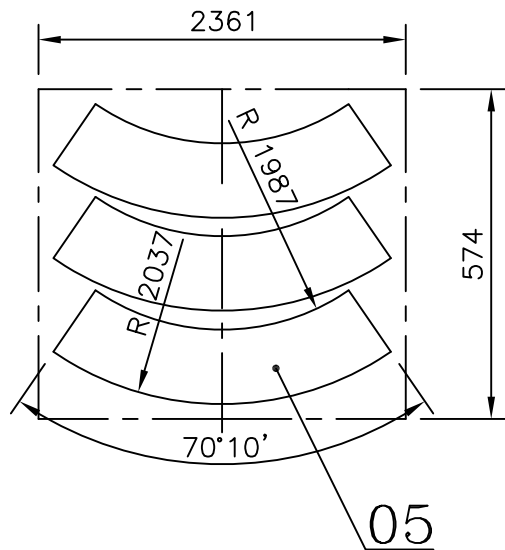


WPS	WELD SYMBOL	ELECTROD SPEC.	WELD LENGTH
WE006	6	E44 RNK	
WE006	10	E44 RNK	

12.5/

NOTES:-

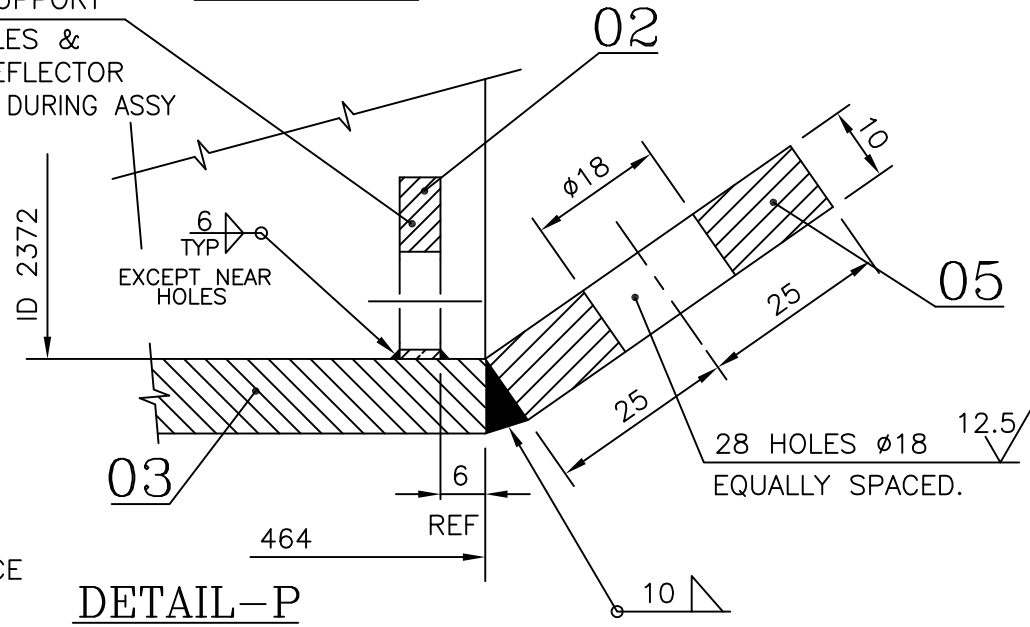
01. REMOVE ALL SHARP EDGES
02. INSIDE & OUTSIDE OF WELDS MUST BE SMOOTH



WELD DEFLECTOR SUPPORT

AFTER DRILLING HOLES &  
AFTER INSERTING DEFLECTOR  
HINGE SHAFT TO SUIT DURING ASSY

DETAIL-C



DETAIL-P

05	PL 10x574x2361				AA1011819074	29.70	106.00
04	PLATE 10xOD 2380xID 2032				AA10119	1	
03	PLATE 10x454x7487				AA1011819074	95.00	
02	DEFLECTOR SUPPORT	4-61-376-00088			AA10119	1	
01	DEFLECTOR ASSEMBLY	2-61-376-000357			AA1011819074	125.00	
					AA10119	1	
					AA1011808030	0.03	
					AA10108	28	
					ASSY.	28	
ITEM NO.	DESCRIPTION	DRAWING NO.	VAR. NO.	RAW MATERIAL SIZE OR CASTING DRG. NO. OR FORGING DRG. NO.	MATERIAL CODE	NET WT.	GROSS WT.
					MATERIAL SPECN.	QUANTITY	

THE FOLLOWING CONDITIONS APPLY EXCEPT OTHERWISE STATED.

1. REF. TO HY0230261 FOR UNSPECIFIED TOLERANCES.
2. CHAMFER M/CD. SHARP EDGES 1.2 TO 1.0 AT 45°.
3. INTERNAL M/CD. CORNER RADII 1 TO 0.7
4. THE SURFACE ROUGHNESS WHERE-EVER NOT SHOWN SHALL BE TAKEN FROM THE SURFACE ROUGHNESS SHOWN OUT SIDE THE BACK SLASH GIVEN OR THE TOP MOST RIGHT CORNER OF THE DRG.

TYPE OF PRODUCT

NAME OF CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LIMITED  
HYDERABAD

NAME	SIGN.	DATE	NO.OF VAR.
UNIC		10.04.97	
B.M.R		26.07.97	
B.RAMANNA		26.07.97	

DEPT. PULV ENGG. CODE 446

UNTOL. DIMS. GR.

φ/M/φ

SCALE 1:10

WEIGHT (KG) 250.54

REF. TO ASSY DRG. 20-F-002-003/A



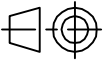


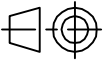


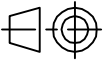
TITLE  
INNER CONE  
(DRUM SECTION)

CARD CODE U01

DRAWING NO. 2-61-376-00038  
REV. 09

SHEET NO. 01 NO OF SHEETS 01

Wt. WAS 465.02 Kg  
DRG. REPLOTED.

INVENTORY NO.	SIGN. & DATE	REF. DRG. No.	COMPUTER No. 46100088.DWG	REV. 03    DATE 15.09.98			REV. 04    DATE 31.01.08			REV.    DATE			DJC																																																																																																																																			
				ALTERED			ALTERED			ALTERED																																																																																																																																						
				CHECKED			CHECKED			CHECKED																																																																																																																																						
				APPROVED			APPROVED			APPROVED																																																																																																																																						
DRAWING REDRAWN ON CAD INCORPORATING ALL THE PREVIOUS REVISIONS.				DIMS 40, 20,10 & 25 WERE 32,16,10.5 &26 RESPLY. MODIFIED BASED ON SHOP FEEDBACK.																																																																																																																																												
<div><div><div><div><div><div>25<sup>+0.5</sup><sub>-0</sub></div><div>10<sup>+0.5</sup><sub>-0</sub></div><div>20</div><div>40</div><div>12.5</div><div>Ø14</div></div></div><div><div>6</div></div></div></div><div>REMOVE ALL SHARP EDGES</div></div> <tr><td colspan="2">PLATE</td><td></td><td colspan="2">6 x 25 x 40</td><td colspan="2">AA1011808030</td><td colspan="2">0.04</td><td colspan="3"></td></tr> <tr><td colspan="2"></td><td></td><td colspan="2"></td><td colspan="2">AA10108</td><td colspan="2">1</td><td colspan="3"></td></tr> <tr><td colspan="3">DESCRIPTION &amp; DRG. No.</td><td>VAR No.</td><td colspan="3">RAW MATERIAL SIZE OR CASTING DRG.NO. OR FORGING DRG.NO.</td><td colspan="2">MATL. CODE</td><td>NET.WT.</td><td colspan="2">GROSS WT</td></tr> <tr><td colspan="3"></td><td></td><td colspan="3"></td><td colspan="2">MATL. SPECN.</td><td colspan="3">QTY.</td></tr> <tr><td colspan="13">TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT</td></tr> <tr><td colspan="2" rowspan="4">REF. TO HY0230261 FOR UNSPECIFIED TOLERANCES.</td><td colspan="3" rowspan="4"><div><div><div></div><div></div></div><div>BHARAT HEAVY ELECTRICALS LTD. HYDERABAD</div></div></td><td colspan="2">NAME</td><td>SIGN</td><td>DATE</td><td colspan="2" rowspan="3">NO.OF VAR.</td></tr> <tr><td>DRN.</td><td>D.S.N</td><td></td><td>13.4.98</td></tr> <tr><td>CKD.</td><td>S.G</td><td></td><td>15.9.98</td></tr> <tr><td>APPD.</td><td>K.MRAO</td><td></td><td>15.9.98</td><td colspan="2"></td></tr> <tr><td colspan="2">DEPT. PULV. ENGG.</td><td>GRADE OF TOL. DIM.</td><td></td><td>SCALE 2:1</td><td>WEIGHT(K.G.) 0.04</td><td colspan="2">REF.TO ASSY.DRG.</td><td>ITEM No.</td><td colspan="2">No.OF ITEM</td></tr> <tr><td colspan="2">CODE 446</td><td>Ø/M/F</td><td></td><td></td><td></td><td colspan="2"></td><td>-</td><td colspan="2">-</td></tr> <tr><td colspan="6">TITLE</td><td colspan="4">DRAWING No. 4-61-376-00088</td><td colspan="2">REV. 04</td></tr> <tr><td colspan="6"></td><td colspan="2">SHT. No. 1</td><td colspan="4">No. OF SHT. 1</td></tr>													PLATE			6 x 25 x 40		AA1011808030		0.04										AA10108		1					DESCRIPTION & DRG. No.			VAR No.	RAW MATERIAL SIZE OR CASTING DRG.NO. OR FORGING DRG.NO.			MATL. CODE		NET.WT.	GROSS WT									MATL. SPECN.		QTY.			TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT													REF. TO HY0230261 FOR UNSPECIFIED TOLERANCES.		<div><div><div></div><div></div></div><div>BHARAT HEAVY ELECTRICALS LTD. HYDERABAD</div></div>			NAME		SIGN	DATE	NO.OF VAR.		DRN.	D.S.N		13.4.98	CKD.	S.G		15.9.98	APPD.	K.MRAO		15.9.98			DEPT. PULV. ENGG.		GRADE OF TOL. DIM.		SCALE 2:1	WEIGHT(K.G.) 0.04	REF.TO ASSY.DRG.		ITEM No.	No.OF ITEM		CODE 446		Ø/M/F						-	-		TITLE						DRAWING No. 4-61-376-00088				REV. 04								SHT. No. 1		No. OF SHT. 1			
PLATE			6 x 25 x 40		AA1011808030		0.04																																																																																																																																									
					AA10108		1																																																																																																																																									
DESCRIPTION & DRG. No.			VAR No.	RAW MATERIAL SIZE OR CASTING DRG.NO. OR FORGING DRG.NO.			MATL. CODE		NET.WT.	GROSS WT																																																																																																																																						
							MATL. SPECN.		QTY.																																																																																																																																							
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT																																																																																																																																																
REF. TO HY0230261 FOR UNSPECIFIED TOLERANCES.		<div><div><div></div><div></div></div><div>BHARAT HEAVY ELECTRICALS LTD. HYDERABAD</div></div>			NAME		SIGN	DATE	NO.OF VAR.																																																																																																																																							
					DRN.	D.S.N		13.4.98																																																																																																																																								
					CKD.	S.G		15.9.98																																																																																																																																								
					APPD.	K.MRAO		15.9.98																																																																																																																																								
DEPT. PULV. ENGG.		GRADE OF TOL. DIM.		SCALE 2:1	WEIGHT(K.G.) 0.04	REF.TO ASSY.DRG.		ITEM No.	No.OF ITEM																																																																																																																																							
CODE 446		Ø/M/F						-	-																																																																																																																																							
TITLE						DRAWING No. 4-61-376-00088				REV. 04																																																																																																																																						
						SHT. No. 1		No. OF SHT. 1																																																																																																																																								



## CORPORATE STANDARD

AA 085 01 29

PAGE 1 OF 1

### ACCEPTANCE STANDARDS FOR LIQUID PENETRANT EXAMINATION OF WELDS

#### 1.0 SCOPE:

- 1.1 This standard covers the "Acceptance Standards For Liquid Penetrant Examination Of Welds'.
- 1.2 The procedure for liquid penetrant examination shall be as per Corporate Standard AA 085 01 31: Procedure For Liquid Penetrant Examination.
- 1.3 This standard is based on ASME Section 8, Division 1, Appendix 8.

#### 2. DEFINITION OF INDICATIONS:

Relevant indications are those which result from mechanical discontinuities. Indications with major dimensions greater than 1.6 mm only shall be considered relevant.

- 2.1 Linear indications are those indications in which the length is more than three times the width.
- 2.2 Rounded indications are those indications which are circular or elliptical with the length equal to or less than 3 times the width.
- 2.3 Any questionable or doubtful indications shall be retested to verify whether or not they are relevant.
- 2.4 Localised surface imperfections, such as may occur from machining marks, surface conditions or incomplete bond between base metal and cladding may produce similar indications which are not relevant to the detection of unacceptable discontinuities.

#### 3. ACCEPTANCE STANDARDS:

All surfaces to be examined shall be free from:

- a) relevant linear indications.
- b) relevant rounded indications greater than 4.8 mm.
- c) four or more rounded defects in line separated by 1.6 mm or less (edge to edge) except where the specification for the material establishes different requirements for acceptance so far as defects are concerned.

Revisions:

APPROVED:

**INTERPLANT  
STANDARISATION COMMITTEE WG - NDT**

Rev. No.

Rev. Date

Revised:

Prepared  
HYDERABAD

Issued  
Corp. R&D

Date:  
SEP. '87



# CORPORATE STANDARD

AA 085 01 31

PAGE 1 OF 8

## PROCEDURE FOR LIQUID PENETRANT EXAMINATION

### 1.0 SCOPE:

1.1 This standard details the procedure for liquid penetrant examination of non-porous ferrous and non-ferrous and non-metallic materials such as ceramics, plastics, glass, etc.

1.2 Typical surface discontinuities detectable by this method are cracks, seams, laps, cold shuts, porosity, laminations, etc.

1.3 This standard conforms substantially with ASTM E 165 — 1980 — (Reapproved 1989) and ASME code section V, Article 6.

### 2.0 PERSONNEL REQUIREMENT:

Personnel performing non-destructive examination and evaluation shall be qualified to the recommended practice SNT-TC-1A or any other recognised practice.

### 3.0 DESCRIPTION:

In principle a liquid penetrant is applied to the surface to be examined and allowed to enter discontinuities, excess penetrant removed, the part dried and a developer applied. The developer functions both as a blotter to absorb penetrant that has been trapped in discontinuities and as a contrasting background to enhance the visibility of penetrant indications.

### 4.0 APPROVED METHODS & MATERIALS:

4.1 Either a colour contrast or fluorescent penetrant method may be used. Any one of the following penetrants shall be used;

- (a) Solvent Removable
- (b) Post Emulsifying
- (c) Water Washable

4.2 For nickel base alloys and/or for stainless steel materials used in nuclear components the penetrant materials, cleaner, penetrant developer, etc., used shall not contain sulphur or halogen above 1% by weight.

4.3 Selection of liquid penetrant material shall be from the same family (brand). Inter-mixing of family of liquid penetrant materials is not allowed.

### 5.0 PROCEDURE:

#### 5.1 Surface Preparation:

#### Revisions :

Cl.7.10 of MOM of WG(NDT)

INTERPLANT  
STANDARDIZATION COMMITTEE - WG  
(NDT)

Rev. No. 02

Amd. No. 01

Reaffirmed

Prepared

Issued

Date

DT. NOV. '92

DT. 19.3.94

Year. 1998

CORP. R&D

CORP. R&D

ISSUED  
SEP. '79

COPYRIGHT AND CONFIDENTIAL  
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.

CS-757



- 5.1.1 Surface preparation by grinding or machining or other method may be employed where surface irregularities may mask indications of unacceptable discontinuities.
- 5.1.2 The surface to be examined and all adjacent areas within at least 25 mm shall be dry and free from any dirt, lint, scale, rust, welding flux, weld spatter, grease, oil or other extraneous matter that could obscure surface openings or otherwise interfere with examination.
- 5.1.3 The surface to be examined shall be cleaned with detergents, organic solvents, descaling solutions or paint removers. Degreasing and ultrasonic cleaning may be employed to increase cleaning efficiency. Cleaning method employed is an important part of the examination procedure. Cleaning solvents shall meet the requirements of Cl.4.2

**Caution:** Blasting with shot or dull sand, rotofinishing, buffing, wire brushing the soft material or machining with dull tools shall not be used as they may peen the discontinuities at the surface.

## 5.2 Drying:

Drying, after cleaning the surface to be examined, shall be accomplished by normal evaporation or with forced hot air, as appropriate. A minimum period of time shall be established to ensure that the cleaning solution has evaporated prior to application of the penetrant.

## 5.3 Application Of Penetrants:

- 5.3.1 The penetrant shall be applied by dipping, brushing or spraying. If the penetrant is applied by spraying using compressed air type apparatus, filters shall be placed at the air inlet to preclude contamination of penetrant by oil, water or dirt sediment that may have collected in the lines. Spraying should only be performed in a booth equipped with exhaust system.
- 5.3.2 The length of penetration time is critical and depends upon the material being inspected, the process through which it has passed and the type of discontinuities expected. The recommended penetration time is given in Table 1.
- 5.3.3 The temperature of the penetrant and the surface of the part to be examined shall not be below 10°C(50°F) nor above 50°C(125°F) throughout the examination period. Local heating or cooling is permitted provided the temperatures remain in the range of 10 to 50°C during the examination. Where it is not practical to comply with these temperature limitations, other temperatures and times shall be used provided the procedures are qualified as described in Annexure-I.

## 5.4 Removal Of Excess Penetrant:

After the penetration time specified in the procedure has elapsed, any penetrant remaining on the surface shall be removed, taking care to minimise removal of penetrant from discontinuities.



## CORPORATE STANDARD

AA 085 01 31

PAGE 3 OF 8

### 5.4.1 Postemulsifying Penetrants:

The emulsifier shall be applied by spraying or dipping. The emulsifying time shall not exceed 5 minutes. After emulsification, the mixture shall be removed by water spray.

### 5.4.2 Solvent Removable Penetrants:

Excess penetrant shall be removed by wiping with a cloth or absorbent paper repeating the operation until most traces of penetrants have been removed. The remaining traces shall be removed by wiping the surface lightly with cloth or absorbent paper moistened with solvent.

**Caution:** Care shall be taken to avoid excess solvent as this may remove penetrants from discontinuities. Flushing the surface with solvent following the application of the penetrant and prior to developing is prohibited.

### 5.4.3 Water Washable Penetrants:

Excess water washable penetrant shall be removed with a water spray. The water pressure shall not exceed 0.35 N/mm<sup>2</sup> (50 Psi) and the water temperature shall not exceed 43.3°C (110°F).

### 5.5 Drying:

Surface shall be dried before the application of developer.

- 5.5.1 a) If postemulsifying or water washable method is used, the surface shall be dried by blotting with clean materials or by using circulating warm air, provided the temperature of the surface is not raised above 50°C (125°F).
- b) For solvent removable method, the surface may be dried by normal evaporation, blotting, wiping or forced air.

### 5.6 Application Of Developer:

The developer shall be applied as soon as possible after the removal of the excess penetrant. Two types of developer, dry or wet, shall be used with fluorescent penetrant. With colour contrast penetrants, only wet developer shall be used.

#### 5.6.1 Application Of Dry Developer:

Dry developer shall be applied by a soft brush, a hand operated powder bulb or a powder gun or other means provided the powder is dusted evenly over the entire surface being examined.

#### 5.6.2 Application Of Wet Developer

Prior to applying suspension type wet developer to the surface, the developer must be thoroughly agitated to ensure adequate dispersion of suspended particles.

(a) Aqueous Developer Application:

Aqueous developer may be applied to either a wet or dry surface. It shall be applied by dipping, spraying or other means provided a thin coating is obtained over the entire surface being examined. Drying time may be decreased by using warm air, provided the surface temperature of the part is not raised above 50°C.

(b) Non-aqueous Developer Application:

Non-aqueous developer shall be applied only on a dry surface. It shall be applied by spraying, except where safety or restricted access preclude it. Under such conditions developer may be applied by brushing. Drying shall be by normal evaporation.

6.0 EXAMINATION:

Observe the surface during the application of the developer to detect nature of any indications which tend to bleed out profusely. Final examination shall be done between 7 minutes at the earliest and 30 minutes at the latest after application of the developer. The nature of discontinuities corresponding to the indications shall be defined depending upon the method of setting, appearance, direction, shape and dimensions of the same. If the bleed out does not alter the examination results, longer periods are permitted. If the surface to be examined is large enough to preclude complete examination within the prescribed time the surface shall be examined in increments.

6.1 Colour Contrast Penetrants (Visible Dye Penetrants):

6.1.1 With colour contrast penetrants the developer forms a reasonably uniform coating. Surface discontinuities are indicated by bleeding out of the penetrant which is normally of a deep red colour. Indication with a light pink colour may indicate excessive cleaning. Inadequate cleaning may leave an excessive background making interpretation difficult.

6.1.2 Adequate illumination is required to ensure no loss of the sensitivity in the examination. Examination shall be done under natural or suitable light (illumination level shall be in the order of 500 LUX).

6.2 Fluorescent Penetrants:

Examination of the surface shall be carried out with a high intensity black light in a darkened area or booth. Black light shall have a wave length of 3650 Å°. The bulbs shall be allowed to warm up for not less than 5 minutes prior to use in the examination. The black light intensity shall be at least of 800 uW/cm<sup>2</sup> on the surface of the part being examined and the light source being kept at a distance of at least 375 mm from the surface being examined. The operator should allow his eyes to become accustomed to the darkness of the inspection booth for at least 5 minutes before inspecting the parts. He should avoid looking directly into the black light and also avoid going from the darkness to





## CORPORATE STANDARD

AA 085 01 31

PAGE 5 OF 8

the light and back again **without allowing** sufficient time for his eyes to adjust to the darkness. The intensity shall be measured at least once every 8 hours and whenever the work station is changed.

### 7.0 EVALUATION OF INDICATIONS & INTERPRETATION:

7.1 As the developer dries to a smooth, even white coating, indications will appear at the locations of discontinuities. Depth of surface discontinuities may be correlated with the richness of colour and speed of bleeding out. However, localised surface imperfections such as may occur from machining marks or surface conditions may produce similar indications which are non-relevant.

7.2 Usually, a crack or similar opening will show a line and light cracks or partially welded lap will show a broken line. Gross porosity may produce large indications covering an entire area. Very fine porosity is indicated by random dots.

7.3 Any non-relevant indication shall be regarded as a defect until the indication is either eliminated by surface conditioning or it is Proved non-relevant by other NDT methods.

7.4 Linear indications are those indications in which the length is more than three times the width. Rounded indications are indications which are circular or elliptical with the length less than three times the width.

7.5 All indications shall be evaluated in terms of the acceptance standards of the referencing documents.

### 8.0 ACCEPTANCE STANDARDS:

8.1 For castings - Refer Corporate Standard AA 085 01 32.

8.2 For Austenitic Forgings - Refer Corporate Standard AA 085 01 30.

8.3 For Welds - Refer Corporate Standard AA 085 01 29.

### 9.0 POST EXAMINATION CLEANING:

Surfaces examined shall be cleaned after evaluation of the test with dry cotton rag with or without water rinse.

TABLE - 1 (Clause 5.3.2)

### Suggested Penetration Time For Post-emulsified And Solvent

#### Removable Penetrants

Material	Form	Type of discontinuity	*Penetration time (min.)
Aluminium	Castings	Porosity	5
		Cold shut	5
	Extrusions & Forgings	Laps	10
		Lack of fusion	5
	Welds	Porosity	5
	All forms	Cracks	10

**CORPORATE STANDARD****TABLE - 1 (Clause 5.3.2) Contd.**

Material	Form	Type of discontinuity	*Penetration time (min.)
Magnesium	Castings	Porosity	5
		Cold shut	5
	Extrusions & Forgings	Laps	10
		Lack of fusion	10
	Welds	Porosity	10
	All forms	Cracks	10
Steel	Castings	Porosity	10
		Cold shut	10
	Extrusions & Forgings	Laps	10
		Lack of fusion	20
	Welds	Porosity	20
	All forms	Cracks	20
Brass & Bronze	Castings	Porosity	5
		Cold shut	5
	Extrusions & Forgings	Laps	10
		Lack of fusion	10
	Brazed parts	Porosity	10
	All forms	Cracks	10
Plastics	All forms	Cracks	5
Glass	All forms	Cracks	5
Carbide tipped tools	All forms	Lack of fusion	5
		Porosity	5
		Crack	20
Titanium & high temperature alloys	All forms		20 to 30
Ceramic	All forms	Cracks	5
		Porosity	5

\* For lower temperatures, penetration time should be increased.

**ANNEXURE - 1 (Clause 5.3.3)****PROCEDURE FOR NON-STANDARD TEMPERATURES****A.1 General:**

When it is not practical to conduct a liquid penetrant examination within the temperature range of 15.6 to 51.6°C (60 to 125°F), the examination procedure at the proposed lower or higher temperature range requires qualification. This shall require the use of a quench cracked aluminium block, which is designated as 'Liquid Penetrant Comparator Block'.

COPYRIGHT AND CONFIDENTIAL  
The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED.  
It is not to be used directly or indirectly in any way detrimental to the interest of the company.

CS - 757



## CORPORATE STANDARD

AA 085 01 31

PAGE 7 OF 8

### A.2 Liquid Penetrant Comparator Block:

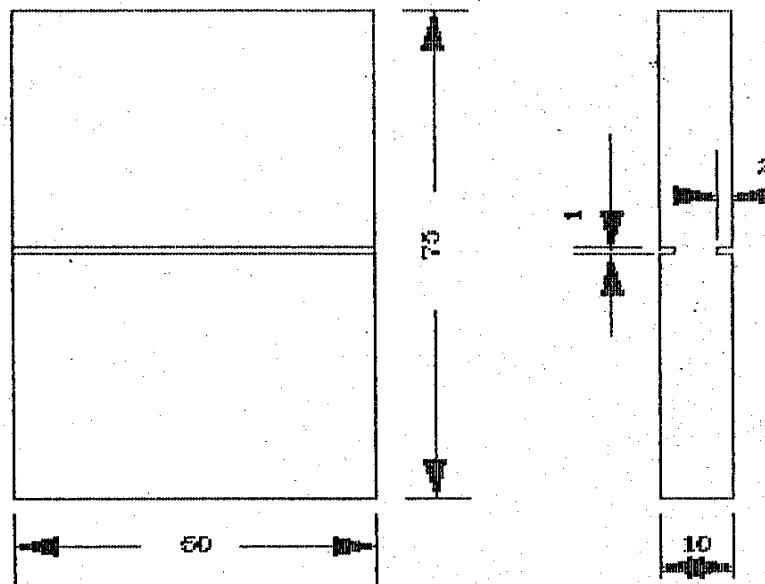
The liquid penetrant comparator block shall be **made of aluminum**, ASTM B209, Type 2024 or SB-211. Type 2024, 10 mm (3/8 in.) thick, and shall have approximate face dimensions of 50 mm x 75 mm (2 in. x 3 in.). At the centre of each face, an area approximately 25 mm in diameter shall be marked with a 510°C (950°F) temperature indicating crayon or paint. The marked area shall be heated with a blow torch, a Bunsen burner or similar device to a temperature between 510°C (950°F) and 524°C (975°F). The specimen shall then be immediately quenched in cold water which produces a network of the fine cracks on each face. The block shall then be dried by heating to approximately 149°C (300°F). After cooling, the block shall be cut into two halves. One half of the specimen shall be designated block 'A' and the other block 'B' for identification in subsequent processing. Figure 1 illustrates the comparator blocks "A" and "B". As an alternate to cutting the block in half to make blocks "A" and "B", separate blocks 50 mm x 75 mm (2 in. x 3 in.) can be made using the heating and quenching technique as described above. Two comparator blocks with closely matched crack patterns may be used. The blocks shall be marked "A" and "B".

### A.3 Comparator Application:


- (a) If it is desired to qualify a liquid penetrant examination procedure at a temperature of less than 15.6°C (60°F) the proposed procedure shall be applied to block "B" after the block and all materials have been cooled and held at the proposed examination temperature until the comparison is completed. A standard procedure which has previously been demonstrated as suitable for use shall be applied to block "A" in the 15.6 to 51.6°C (60 to 125°F) temperature range. The indications of cracks shall be compared between blocks "A" and "B". If the indications obtained under the proposed condition on block "B" are essentially the same as obtained on block "A" during examination at 15.6 to 51.6°C (60 to 125°F), the proposed procedure shall be considered qualified for use.
- (b) If the proposed temperature for the examination is above 51.6°C (125°F), block "B" shall be held at this temperature throughout the examination. The indication of cracks shall be compared as described in T-647.3(a) while block "B" is at the proposed temperature and block "A" is at the 15.6 to 51.6°C (60 to 125°F) temperature range.
- (c) A procedure qualified at a temperature lower than 15.6°C (60°F) shall be qualified from that temperature to 15.6°C (60°F).
- (d) To qualify a Procedure for temperatures above 51.6°C (125°F), the upper and lower temperature limits shall be established and the procedure qualified at these temperatures.
- (e) As an alternate to the requirements of (a) and (b) when using color contrast penetrants, it is permissible to use a single comparator block for the standard and non-standard temperatures and to make the comparison by photography.



- (f) When the single comparator block and photographic technique is used, the processing details (as applicable) described in (a) and (b) above shall apply. The block shall be thoroughly cleaned between the two processing steps. Photographs shall be taken after processing at the nonstandard temperature and then after processing at the standard temperature. The indication of cracks shall be compared between the two photographs. The same criteria for qualification as (a) above shall apply.
- (g) Identical photographic techniques shall be used to make the comparison photographs.



**FIGURE: 1-LIQUID PENETRANT COMPARATOR BLOCK**

		<b>CORPORATE PURCHASING SPECIFICATION</b>		AA10108	
				Rev No. 11	
				PAGE 1 of 2	
<div><b>STRUCTURAL STEEL-STANDARD QUALITY</b> <b>(PLATES, SECTIONS, STRIPS, FLATS &amp; BARS)</b>  <b>(ORDERING DESCRIPTION)</b></div>					
<div><div>1.0    <b>GENERAL:</b></div><div>This specification governs the quality requirements of structural steel plates, strips, flats, bars and sections such as angles, beams, channels and tees etc. of IS: 2062 – 2011, Gr: E250, Quality A</div></div>					
<div><div>2.0    <b>APPLICATION:</b></div><div>For general engineering purpose.</div></div>					
<div><div>3.0    <b>CONDITION OF DELIVERY:</b></div><div>Plates, Bars &amp; Sections: Hot rolled in straight lengths without twists &amp; Bends</div></div>					
<div><div>4.0    <b>COMPLIANCE WITH NATIONAL STANDARDS:</b></div><div>Material shall comply with the requirements of IS: 2062 – 2011, Gr: E250, Quality A</div><div>Material offered to EN 10025-2:2004 Gr. S275JR is also acceptable. The tolerance on dimensions for plates shall comply with EN 10029.</div></div>					
<div><div>5.0    <b>DIMENSIONS AND TOLERANCES:</b></div></div>					
<div><div>5.1    <b>DIMENSIONS:</b></div></div>					
<div><div>5.1.1    <b>Sizes</b></div><div>Material shall be supplied to the dimensions specified on BHEL Order.</div></div>					
<div><div>5.1.2    <b>Length</b></div><div>Unless otherwise specified, hot rolled bars and sections shall be supplied in 3 to 6 metres length.</div></div>					
<div><div>5.2    <b>Tolerances:</b></div></div>					
<div><div>5.2.1    </div><div>The tolerances on hot rolled material shall comply with IS: 1852. However, no plate shall be under the specified thickness at any point.</div></div>					
Revisions: As per Cl. No. 38.1 of MOM of MRC-S&GPS			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE – MRC(S&GPS)		
Rev No.11	Amd No.	Reaffirmed	Prepared	Issued	Dt. of 1 <sup>st</sup> Issue
Dt:22-02-2014	Dt:	Year:	HPEP, Hyderabad	Corp.R&D	July, 1976

# CORPORATE PURCHASING SPECIFICATION



## 5.2.2 Straight for hot rolled bars:

Unless otherwise specified, the permissible deviation in straightness shall not exceed 5 mm in any 1000 mm length.

## 6.0 HARDNESS (BRINELL):

When tested in accordance with IS: 1500, the material shall show a brinell hardness in the range of 120-156 HB.

Note: Hardness test shall be conducted only when tensile test cannot be performed.

## 7.0 TEST CERTIFICATES:

Unless otherwise specified, three copies of test certificates shall be supplied.

In addition, the supplier shall ensure to enclose one copy of the test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information.

AA10108 Rev.11 / IS:2062 Grade: E250 Quality A / EN 10025-2 Gr. S275JR,

BHEL order no., Melt no. Size, Results of chemical analysis and Mechanical tests, Supplier's name, Identification no. TC no., Signature of competent authority etc.

## 8.0 PACKING AND MARKING:

Plates shall be transported suitably to avoid damage during transit.

For plates below 10 mm thick, each pile (preferably of 16 plates) and each plate 10 mm thick & over shall be marked with melt no. AA10108, BHEL order no., Supplier's name, Identification no., Size & weight on any one corner and encircled with paint preferably of white colour.

## 9.0 REFERRED STANDARDS (Latest publications including amendments):

1) IS: 1500

2) IS: 1852

3) EN 10029



# CORPORATE PURCHASING SPECIFICATION

AA10119

Rev No. 15

PAGE 1 of 2

## STRUCTURAL STEEL - WELDABLE QUALITY (PLATES, SECTIONS, STRIPS, FLATS AND BARS)

### ORDERING DESCRIPTION

#### 1.0 GENERAL:

The material shall conform to IS 2062 – 2011, E250-Gr.BR (with mandatory Impact Test) or DIN EN 10025-2:2005, Gr. S275JR and comply with following additional requirements.

#### 2.0 APPLICATION:

For general engineering purposes, suitable for welding.

#### 3.0 CONDITION OF DELIVERY:

3.1 Bars & Sections shall be supplied in Hot rolled in straight lengths without twists and bends.

3.2 The material shall be supplied as per IS: 2062 – 2011, E250 Gr.BR (with mandatory Impact Test) or as per DIN EN 10025-2:2005 Gr. 275JR.

3.3 Any other additional requirement as per BHEL Purchase order.

#### 4.0 DIMENSIONS AND TOLERANCES:

##### 4.1 Sizes:

Material shall be supplied to the dimensions specified in BHEL Order.

##### 4.2 Tolerances:

The tolerances on hot rolled material shall comply with IS: 1852 or any other equivalent national standard.

##### 4.3 Straightness for hot rolled bars:

Unless otherwise specified, the permissible deviation in straightness shall not exceed 5 mm in any 1000 mm length.

#### 5.0 TEST SAMPLES:

The selection of test pieces for all tests like Chemical, Mechanical etc. shall be as per IS: 2062, E250-Gr.BR or DIN EN 10025-2, Gr. S275JR.

#### Revisions:

Clause No. 1, 3, 5 & 8 revised (as per MOM of 38th MRC meeting), Clause 10 added

#### APPROVED:

INTERPLANT MATERIAL RATIONALISATION  
COMMITTEE – MRC(S&GPS)

Rev No.15

Amd No.

Reaffirmed

Prepared

Issued

Dt. of 1<sup>st</sup> Issue

Dt:11-03-2014

Dt:

Year:

HPEP, Hyderabad

Corp.R&amp;D

June, 1976

26/6/14

CS-72

# CORPORATE PURCHASING SPECIFICATION



## 6.0 ULTRASONIC EXAMINATION:

Plates shall be ultrasonically examined in accordance with BHEL standard AA0850120 (or ASTM-A435) as detailed below and shall comply with the acceptance standards specified therein.

### 6.1 For plates above 40 mm thick:

Shall be ultrasonically examined unless when otherwise specified in order.

## 7.0 TEST CERTIFICATES:

Unless otherwise specified, three copies of test certificates shall be supplied.

In addition, the supplier shall ensure to enclose one copy of the test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

AA10119 - Rev.No.15/ IS: 2062-Gr: BR (with mandatory Impact test) or DIN EN 10025-2, Gr. S275JR,

BHEL order No.

Melt No, Size & Quantity, Batch No with heat treatment details, Results of Chemical analysis,

Mechanical tests & NDT, Supplier's name, Identification No, TC No, Signature of Competent Authority, etc.

## 8.0 PACKING AND MARKING:

Plates shall be transported suitably to avoid damage during transit.

Each plate shall be marked with Melt No. Material grade and specification, BHEL Order No, Supplier's Name Identification No, Size & weight, on any one corner and encircled with paint preferably of white colour.

## 9.0 REJECTION AND REPLACEMENT

If the material does not comply with the requirements of this specification during receipt inspection at BHEL or if any defect is found during further processing of material, BHEL reserves the right to reject the whole consignment and the supplier shall replace the material free of cost. The rejected material shall be taken back by the supplier after fulfilling the commercial terms and conditions.

## 10.0 REFERRED STANDARDS (Latest publications including amendments):

1) IS: 1852

2) ASTM - A435

3) AA0850120

26/6/14

CS-721



## RUST PREVENTIVE HARD FILM, BLACK (TRP)

## 1.0 GENERAL:

This specification governs the quality requirements of temporary rust preventive (TRP), coating a hard film on drying. The material consists of film forming ingredients dissolved in solvents to give a low viscous liquid at room temperature. On evaluation of solvents, a thin though abrasion resistant film capable of being handled without damage shall be obtained. Normally this material gives protection upto six months and thereafter requires inspection and reapplication, if necessary.

## 2.0 APPLICATION:

Depending upon components and their sizes, the rust preventive can be applied by brush, dip or spray. Two liberal coats are desirable for adequate protection. The surface to be coated with anti rust solution should be absolutely clean and free from rust.

### 3.0 REMOVAL:

This TRP can be removed by cotton cloth soaked in white spirit to BHEL specification AA 56701.

**4.0 COLOUR** : Steel Black.

## 5.0 COMPLIANCE WITH NATIONAL STANDARDS:

The material shall comply with the requirements of the following national standards and also meet the requirements of this specification.

IS: 1153 - 2000:RA-2005      Temporary Corrosion Preventive, Fluid, Hard Film, Solvent deposited.

## 6.0 COMPOSITION:

The composition shall be based on asphalt, mineral oil and inhibitive pigments with suitable additives.

## 7.0 TEST SAMPLES:

Half a litre of sample shall be taken for testing and approval.

## 8.0 PROPERTIES:

When tested in accordance with the relevant clauses of BHEL standard AA 085 00 01, the test sample shall show the following properties:

**8.1 Consistency** :  $90 \pm 10$  seconds in Ford Cup No.4 at  $27 \pm 0.5^{\circ}\text{C}$ .

**8.2 Drying Time** : Tack free: Within one hour  
Hard dry : 16 hours

**8.3 Flash Point** : 32<sup>0</sup>C, min.

**Revisions:**

### As per 40<sup>th</sup> MOM of MRC-CPO

**APPROVED:**

**INTERPLANT MATERIAL  
RATIONALISATION COMMITTEE-MRC (CPO)**

**Rev. No. 03**

Amd.No.

**Reaffirmed**

**Dt. 26.05.2012**


Dt:

Year:

Prepared  
BHOPAL

**Issued  
Corp. R&D**

**Dt. of 1st Issue**  
**NOVEMBER, 1982**

AA 551 52	CORPORATE PURCHASE SPECIFICATION	
Rev. No. 03		
PAGE 2 OF 2		

**8.4 Weight** : 11 ± 0.5 kg per 10 litres.

**8.5 Non-volatile Matter** : 58 ± 2% by mass.

**8.6 Test for Adhesion** : To pass the test

**8.7 Spreading Capacity** : 8.0 sq.meter/litre, minimum

**8.8 Protection against corrosion at high temperature and humidity:**  
To pass the test for 360 hours, minimum..

**9.0 TYPE TESTS:**  
Whenever specified, the following tests shall be carried out, as per the methods mentioned against each:

i) **Protection against corrosion under conditions of condensation (IS:101, part 6/sec.1):**  
No sign of corrosion on the surface after 21 days of exposure.

**10.0 TEST CERTIFICATES:**  
Three copies of test certificates shall be supplied alongwith each consignment, giving the following information:  
  
In addition, the supplier shall ensure to enclose one copy of the test certificate alongwith the despatch documents to facilitate quick clearance of the material.

AA 551 54, Rev. 03 : Rust preventive hard film, black (TRP)  
BHEL Order No.  
Batch / Lot No.  
Supplier's/ Manufacturer's Name and Trade mark, if any  
Date of manufacture and expiry  
Test results of clause 8.0 & 9.0.

**11.0 KEEPING PROPERTY:**  
  
When stored in a covered dry place in the original sealed containers under normal temperature conditions, the material shall retain the properties prescribed in this specification for a period of not less than 12 months after the date of manufacture which shall be subsequent to the date of placing the order.

**12.0 PACKING & MARKING:**  
Unless otherwise specified, the material shall be supplied in 4 kg steel containers, which shall be leak free, dry and clean.  
  
Each container shall marked with the following information:  
  
AA 551 54: Rust preventive hard film, black (TRP)  
BHEL Order No.  
Supplier's / Manufacturer's Name and Trade mark, if any  
Batch No./Lot No.  
Date of manufacture and expiry  
Quantity supplied

**8.0 ENVIRONMENTAL REQUIREMENTS:**  
The supplier shall furnish Material Safety Data Sheet (**MSDS**) covering all information relating to human safety and environmental impacts of the hazardous materials particularly during their transportation, storage, handling and disposal alongwith each supply.  
Each container shall be marked with corresponding symbol and minimum worded cautionary notice for flammable / corrosive / toxic / harmful / irritant and oxidizing etc. as applicable

**13.0 REFERRED STANDARDS (Latest Publications Including Amendments):**  
1. AA 085 00 01                      2. AA 56701                      3. IS: 1153



## CORPORATE PURCHASE SPECIFICATION

AA 551 55

Rev. No. 02

PAGE 1 OF 3

### RUST PREVENTIVE, DRYING TYPE – PIGMENTED (TRP)

#### 1.0 GENERAL:

This specification governs the quality of pigmented drying temporary hard film TRP coating. The material consists of a film forming synthetic resin, inhibition pigment (zinc chromate/ zinc phosphate) and suitable additives. This bright yellow pigmented preservative gives long term preservation at medium and high ambient upto one year and needs inspection and reapplication, if necessary.

#### 2.0 APPLICATION:

Depending upon the components and their size, the rust preventive can be applied by brush, spray or dip. Two liberal coats are desirable for adequate protection. The surface to be coated with rust solution should be scrupulously clean and devoid of rust.

#### 3.0 COLOUR:

Yellow.

#### 4.0 COMPLIANCE WITH NATIONAL STANDARDS:

There is no Indian standard covering this material.

#### 5.0 CHEMICAL COMPOSITION:

The composition shall be based on synthetic resin inhibitive pigment (zinc chromate/zinc phosphate) with suitable additives.

#### 6.0 TEST SAMPLES:

Half a litre of sample shall be taken from each consignment for testing and approval.

6.1 To draw a representative sample, the contents of the container selected for sampling shall be mixed as thoroughly as possible by shaking or stirring or both or by rolling, so as to bring all portions into uniform distribution.

6.2 The samples shall be taken in a suitable, clean, dry air-tight glass bottle of one liter capacity. It should be almost but not completely filled by the sample.

6.3 In case of failure of first sample, two samples shall be drawn from other two drums of the same consignment at random and failure of the second sample in complying with the specification will lead to the rejection of the whole consignment.

#### 7.0 PROPERTIES:

When tested in accordance with test methods mentioned against each, the test sample shall show the following properties:

##### 7.1 Consistency (AA 085 00 01):

60 – 70 seconds in cup No. 4 to IS: 3944 -1982, RA-2005at 27± 0.5° C.

##### 7.2 Drying Time (AA 085 00 01):

Touch dry : within one hour  
Hard dry : 16 hours

#### Revisions:

As per 40<sup>th</sup> MOM of MRC-CPO

#### APPROVED:

INTERPLANT MATERIAL  
RATIONALISATION COMMITTEE-MRC (CPO)

Rev. No. 02

Amd.No.

Reaffirmed

Prepared  
BHOPAL


Issued  
Corp. R&D

Dt. of 1st Issue  
JANUARY, 1990

Dt. 26.05.2012

Dt :

Year:

AA 551 55	CORPORATE PURCHASE SPECIFICATION	
Rev. No. 02		
PAGE 2 OF 3		

**7.3 Weight in kg per 10 litres (AA 085 00 01):**  
14.0 ± 0.5

**7.4 Non-volatile Content (AA 085 00 01 ):**  
73 ± 2% by mass.

**7.5 Test for Adhesion (AA 085 00 01):**  
To pass the test.

**7.6 Protection Against Corrosion at High Temperature and Humidity (AA 085 00 01):**  
No sign of corrosion under the film.

**7.7 Scratch Hardness (IS: 1153):**  
To pass the test.

**8.0 REMOVAL:**  
This shall be removable by using white spirit to BHEL specification AA 567 01.

**9.0 TYPE TESTS:**

**9.1 Flash Point (AA 085 00 01):**  
Above 35<sup>0</sup> C.

**9.2 Spreading capacity (AA 085 00 01 ):**  
6.5 sq.m per litre. minimum.

**9.3 Salt spray Test for 7 days (IS:2074):**  
No sign of corrosion underneath the paint film.

**10.0 TEST CERTIFICATES**  
Three copies of test certificates shall be supplied alongwith each consignment, giving the following information:  
In addition, the supplier shall ensure to enclose one copy of the test certificate alongwith the despatch documents to facilitate quick clearance of the material.  
AA 5551 55, Rev. 02 : Rust preventive, drying type-pigmented (TRP)  
BHEL Order No.  
Batch / Lot No.  
Supplier's/ Manufacturer's Name and Trade mark, if any  
Date of manufacture and expiry  
Test results of clause 7.0.



## CORPORATE PURCHASE SPECIFICATION

AA 551 55

Rev. No. 02

PAGE 3 OF 3

### 11.0 KEEPING PROPERTY:

When stored in a covered dry place in the original sealed containers under normal temperature conditions, the material shall retain the properties prescribed in this specification for a period of not less than 12 months after the date of manufacture which shall be subsequent to the date of placing the order.

### 12.0 PACKING & MARKING

Unless otherwise stated, the TRP shall be supplied in 4 kg steel containers.

Each container shall bear the following information:

AA 551 55: Rust preventive, drying type-pigmented (TRP)

BHEL Order NO.

Supplier's / Manufacturer's Name

Trade mark, if any

Date of manufacture and expiry

Batch No.

Quantity supplied

### 13.0 ENVIRONMENTAL REQUIREMENTS:

The supplier shall furnish Material Safety Data Sheet (**MSDS**) covering all information relating to human safety and environmental impacts of the hazardous materials particularly during their transportation, storage, handling and disposal alongwith each supply.

Each container shall be marked with corresponding symbol and minimum worded cautionary notice for flammable / corrosive / toxic / harmful / irritant and oxidizing etc. as applicable

### 14.0 REFERRED STANDARDS (Latest Publications Including Amendments)

1. AA 085 00 01

2. AA 567 01

3. IS: 1153

4. IS 2074

5. IS 3944



# CORPORATE PURCHASING SPECIFICATIONS

AA56101

Rev. No.07

PAGE 1 of 5

## ANTI-CORROSIVE PRIMING PAINT

### 1.0 GENERAL:

This specification governs the quality requirements of air drying Anti Corrosive ready mixed Red oxide Zinc phosphate priming paint which shall be capable of being brushed, sprayed by conventional methods. The priming paint shall be suitable to be thinned with MTO/white spirit conforming to BHEL specification AA56701.

The paint shall be compatible with high quality full glossy outdoor finishing paint to BHEL specification AA56126 (IS: 2932), when surfaces primed with this paint are coated with 2 coats of finishing paint.

### 2.0 APPLICATION:

The material shall be intended for use as a primer coat in the painting system for protection of steel surfaces against corrosion for outdoor and indoor application on Electrical equipment. Normally, for best performance the surface to be coated shall be ensured free from oil, loose rust/dust etc., followed by blast cleaning to Sa 2 1/2.

This shall be followed by application of two coats of the priming so as to achieve dft of 30 microns, min.

### 3.0 COMPLIANCE WITH NATIONAL STANDARDS:

The material shall comply with the requirements of the following national standard and also meet the requirements of this specification.

IS: 12744 – 1989 (Reaffirmed 2004): Ready Mixed Paint, Air Drying, Red Oxide-Zinc Phosphate Priming-Specification.

### 4.0 COLOUR: The colour of the material shall be that of red oxide.

### 5.0 FINISH: Smooth and Matt to Egg shell flat

### 6.0 FREEDOM FROM DEFECTS:

The priming paint shall remain free from defects like hard settling of pigments, thick and hard skinning etc., when kept in closed container and livering (excessive viscosity build up) during its rated shelf life.

The dried surface of the coating shall be smooth, uniform, homogenous appearance and shall be free from physical defects like, pinholes, wrinkles, hard particles, blisters, air bubbles etc.

### 7.0 CHEMICAL COMPOSITION:

The paint shall be formulated with anti-corrosive pigments like Red oxide of iron, Zinc phosphate, extenders etc., dispersed in unsaponifiable modified alkyd medium in solvent, thinner and drier in suitable proportions so as to satisfy the requirements prescribed in this

Revisions:  
As per 40<sup>th</sup> MOM of MRC-CPO

**APPROVED:**  
INTER PLANT MATERIAL RATIONALISATION  
COMMITTEE – MRC(CPO)

Rev. No.07	Amd. No.	Reaffirmed
Dt:26-05-2012	Dt:	Year:

Prepared  
HEEP, Haridwar

Issued  
Corp. R&D

Dt. of 1<sup>st</sup> Issue  
Jan 1980

# CORPORATE PURCHASING SPECIFICATIONS



specification. The raw materials used in the formulation of the priming paint shall be of good quality and conform to following Indian standards.

- a) Zinc Phosphate : IS: 10897
- b) Red Oxide of Iron : IS: 44
- c) Petroleum hydrocarbon solvent : IS: 1745

The supplier of the material has to certify that the paint supplied shall be free from lead or its compounds and also meets the legislative requirements of ISO 14001.

## 8.0 TEST SAMPLES AND TEST METHODS:

Tender samples will not be required when once the type approval is given and the supplier concerned declared that the material for which the tender is given of the same quality as the type approved sample.

500ml of thoroughly mixed sample representing lot be drawn from randomly selected drum and shall be sent to laboratory for testing. The testing shall be done in accordance with relevant part and section of IS: 101 or as specified in this specification.

## 9.0 PROPERTIES:

### 9.1. Drying Time

Surface dry : 2 hours, maximum

Hard dry : 12 hours, maximum

### 9.2. Consistency

Smooth and uniform and suitable for brushing without appreciable drag on the brush or spraying as required.

Efflux time by Ford cup No. 4, at  $27 \pm 20^\circ\text{C}$ : 80 - 120 secs.

### 9.3. Mass per Ten Litres:

13.5 kgs. min.

### 9.4. Flash Point:

$30^\circ\text{C}$ , min

### 9.5. Scratch Hardness:

When tested on coated panels air dried for 48 hrs and tested at a load of 1500g on steel panels and 1000g on tinned mild steel panels, no such scratch as to show the bare metal shall be produced.

### 9.6. Flexibility and Adhesion:

When tested on coated panels air dried for 48 hrs, no visible damage or detachment of coating shall take place and passes the test when tested by cylindrical bend test method.

### 9.7. Resistance to Salt Spray:

When tested as per test method of IS 2074, the test panel prepared from the followed by air drying for 48 hrs, material shall show no sign of corrosion after continuous exposure for 96 hrs, in salt spray cabinet.





# CORPORATE PURCHASING SPECIFICATIONS

AA56101

Rev. No. 07

PAGE 3 of 5

## 9.8. Protection against Corrosion under Conditions of Condensations:

The coated panels air dried for 48 hrs, are subjected to continuous exposure, shall show no sign of deterioration of the coating & metal surface show no sign of corrosion.

## 9.9. COMPOSITION:

**9.9.1. Pigment Content:**  $50 \pm 5\%$  by mass

**9.9.2. Zinc Phosphate (IS 10897):** 16.0%, min. by mass on pigment

**9.9.3. Red Oxide AS  $\text{Fe}_2\text{O}_3$  (IS 44):** 50.0%, min. by mass on pigment

**10.0 VOLUME SOLIDS:** 40.0% min. (Pigment + Binder) by weight.

## 11.0 COMPATIBILITY TEST WITH COATS:

The primer paint shall be fully compatible with top coats like, High quality full glossy finishing paint conforming to AA56126 /IS 2932, when tested as per method prescribed in Annexure-1.

## 12.0 WET OPACITY (FOR INFORMATION ONLY):

Theoretical coverage: 10 sq.m / litre @ Dft: 35 microns.

## 13.0 TEST CERTIFICATES:

Unless otherwise stated, three copies of test certificates shall be supplied along with each consignment.

In addition, the supplier shall ensure to enclose one copy of the test certificates along with their despatch documents to facilitate quick clearance of the material.

The test certificates shall bear the following information:

AA56101 Rev. No. 07 - ANTI-CORROSIVE PRIMING PAINT

BHEL order:

Supplier's Name and address

Identification/Trade Mark, if any.

Batch No/Lot No.:

Date of Manufacture and Expiry.

Lot Quantity:

Test results of clause 7.0 to 12.0.

Special Instructions, if any.

## 14.0 KEEPING PROPERTY:

When the material stored in a covered dry place in the original sealed container at under ambient conditions, the same shall retain the properties prescribed in this specification for a period of at least 12 months after the date of manufacture, which shall not be subsequent to the date of placing the order and not earlier than one month of the scheduled delivery date mentioned in BHEL order.



# CORPORATE PURCHASING SPECIFICATIONS



## 15.0 ENVIRONMENTAL REQUIREMENTS:

The supplier shall furnish Material Safety Data Sheet (MSDS) covering all information relating to human safety and environmental impacts of the hazardous materials particularly during their transportation, storage, handling and disposal along with each supply. Each container shall be marked with corresponding symbol and minimum worded cautionary notice for flammable / corrosive / toxic / harmful / irritant and oxidizing etc. as applicable.

## 16.0 PACKING & MARKING:

Unless otherwise stated, the paint shall be supplied in packing size as specified in BHEL order and shall be packed in air tight leak -proof metal container conforming to IS: 1407 and IS: 2552. Each container shall bear following information neatly written or pasted on the container.

AA56101 - ANTI-CORROSIVE PRIMING PAINT

BHEL order:

Name of supplier and address:

Identification/Trade Mark, if any.

Quantity of material:

Batch No/Lot No.:

Date of Manufacture and Expiry.

Special Instructions, if any:

## 17.0 REFERRED STANDARDS (Latest Publications Including Amendments):

- 1) IS : 44
- 2) IS : 101
- 3) IS : 1407
- 4) IS : 1745
- 5) IS : 2074
- 6) IS : 2552
- 7) IS : 2932
- 8) IS : 10897
- 9) IS : 12744
- 10) IS : 13262
- 11) ASTM D 3359
- 12) AA56126
- 13) AA56701



# CORPORATE PURCHASING SPECIFICATIONS

AA56101

Rev. No. 07

PAGE 5 of 5

## ANNEXURE-I

### TEST FOR COMPATIBILITY OF ANTI-CORROSION PRIMING PAINT (AA 56101) WITH TOP COATS OF FINISHING PAINT (AA56126/IS: 2932)

The compatibility of anti-corrosive priming paint conforming to AA 56101 with top coat finishing paint to AA 56126/IS: 2932, shall be checked by Cross-cut tape adhesion method prescribed in ASTM D 3359. The adhesion tape used shall conform to IS: 13262 or any other tape bearing ISI mark having sufficient adhesion strength.

A Steel plate of size 150x100mm is taken for testing compatibility. Thoroughly clean the plate with emery to make it free from rust, oil, dust etc. Apply two coats of homogenized anticorrosive priming paint after allowing coating to dry over night before, application of next coat.

Apply two coats of top coat finishing paint evenly covering plate completely. Allow the coatings, to dry for 48 hours at ambient conditions before performing the cross cut adhesion test.

Test method B shall be followed and the acceptance criteria shall be 4 B, i.e., small flakes of the coating material are detached at intersections and less than 5% of the area is affected



**BHEL HERP VARANASI  
QUALITY PLAN**


**QUALITY PLAN FOR**

**FABRICATED & MACHINED COMPONENT (MILD STEEL)**

SL.NO.	COMPONENT	CHARACTERISTIC CHECKED	TYPE/METHOD OF CHECK	EXTENT OF CHECK	REFERENCE DOCUMENTS & ACCEPTANCE NORM	FORMAT OF RECORD	AGENCY			REMARKS
							P	W	V	
1.0	<b>Raw Material</b>									
	i. Plate material, Rounds, Pipes (Specns. as applicable)	Verification of supplier's certificates for chem. & mech. Properties	Certificate review	100%	IS2062 FOR MS PL. IS228 FOR MS ROD SA106 GR.B FOR seamless stl. PIPE, En8 /En19 FOR RODs	T.C.	3	-	2	Matl. TC can be waived off if the same is specified in Purchase Order
		Soundness of MS Plates > 40 mm thk.	UST	100%	ASTM A-435	T.C.	3	-	2	Plates < 40 mm shall be UST tested if specifically called in PO.
	ii. Standard Fasteners (Bolts, Nuts, screws)	Verification of make and class	review of sub supplier's documents	100%	Drawing / purchase order	Inspection Report	3	-	2	All Fasteners of class 8.8 and above should be of reputed make like TVS/LPS/DFL/Boltmaster/CAPARO/Sri Pavitra make
2.0	Fabrication	i. Visual inspection of welds	Visual	100%	Free from defects	Inspection Report	3/2	-	2	Welding shall be done as per WPS mentioned in the drawing. DP test o be witnessed by BHEL if asked in the PO
		ii. Soundness of welded joints	DP Test of welded joints (if required as given in the Drg./PO)	as mentioned in Drg. / Po	AA0850131 & AA0850129	Inspection Report	3	2	-	
		iii. Verification of Dimensions and visual inspection	visual & Measurement	100% by Vendor	Drawing.	Dimension Report	3	-	2	
		iv. Stress relieving after welding (when called in Drg. or PO)	Review of H.T.Chart	100%	HY0640763	H.T.Chart	3	-	2	
3.0	Final Inspection	i. Overall dimensions after final machining	Measurement	100% for machined dimensions and random 10% for other dimensions	Drawing.	Dimension Report	3/2	2	-	Tol. For untol. Dimensions will be governed by IS2102 med. Grade for machined dimensions and Course grade for Fabricated dimensions
		ii. surface finish	Visual	100%	Drawing	Inspection Report	3/2	2	-	
		iii. Painting/preservation	Visual, Paint shade and DFT	Random Sample basis	Drawing / PO		3/2	-	2	
		iv. Identification & Marking	Punching of P.O.No. & Inspector Seal	100% by BHEL		Inspection Report	3/2	2	-	
QP. NO.	RV/FAB & MCD/12 REV-03				MANAGER P&D					
DATE	26.08.2017				SIGNATURE & DATE					
PG. NO.	1 OF 1									

REV-03

Painting Witness changed to verification

  
**विरेंद्र कुमार / Virendra Kumar**  
 उप महाप्रबंधक (पी.एण्ड.डी.) By General Manager P&D  
 भारत हेवी इलेक्ट्रिकल्स लि.  
 Varanasi Heavy Electric. Co. Ltd.  
 Varanasi

T.C. = TEST CERTIFICATE  
 P = PERFORM  
 V = VERIFY  
 W = WITNESS  
 1 = VENDOR  
 2 = BHEL

**BHARAT HEAVY ELECTRICALS LIMITED**

Ramachandrapuram, Hyderabad – 502 032, INDIA

**QW – 482 WELDING PROCEDURE SPECIFICATION (WPS)**

Welding Procedure Specification No.: WE006    Date: 02.08.86    Supporting PQR No.: 516, Dt : 11.05.10

Revision No.: 07

Date: 24.04.2016

Welding Process (es) : SMAWType (s) : MANUAL**JOINTS (QW 402)**Joint Design: As per manufacturing drawing (groove/fillet)Root Spacing : As per manufacturing drawingBacking (Yes) : for double side butt welds and backing strip joints(No) : for single side weldsBacking Material (Type) : Base metal / Weld metalMetal: YesNon-Fusing Metal: NoRetainer: No**BASE METALS (QW – 403)**

P. No. : 1    Group No. : 1 &amp; 2    TO    P. No.: 1    Group No.: 1 &amp; 2

**OR**

Specification type &amp; grade: -----    to    Specification type &amp; grade : -----

**OR**

Chemical Analysis &amp; Mechanical Properties: --- to    Chemical Analysis &amp; Mechanical Properties: ----

**Thickness Range :**Base Metal :    Groove: 5.0 mm to 38 mm \*\*    Fillet : all sizes

Deposited pass thickness &gt; 13mm – Not Permitted

Other : None

**Filler Metals (QW – 404)**

	<b>SMAW</b>
Spec. No. (SFA)	5.1
AWS NO (CLASS)	A5.1 (E 7018)
F. No.	4
A. No.	1
Size of Filler Metals	Dia 2.5, 3.15, 4.0, 5.0mm
Filler Metal Product Form	N.A
Supplemental Filler Metal	N.A
Deposited Weld Metal	
Thickness Range :    Groove:	38 mm Max.
Fillet:	38 mm Max Throat
Electrode Flux (Class)	Basic
Consumable Insert	No
Max. Bead Thickness	5 mm

\*\* Note : For Unequal thicknesses base material thickness qualified upto 50mm and weld metal thickness limited to 38mm max.

Rev : 07 – Note added regarding base material thickness

N.A – Not Applicable

Page 1 of 2

**POSITIONS (QW-405)****Position(s) Groove :** ALL POSITIONS**Welding Progression:** UP for VerticalDown –Not permitted**Position (s) Fillet:** ALL**Other :** None**POSTWELD HEAT TREATMENT (QW-407)**Not Permitted**Temperature Range:** NA**Time Range:** NA**Other :** None**PREHEAT (QW-406)****Preheat Temp Min:** 10 °C min for < 31mm100 °C min for 31mm and above**Interpass Temp Max:** 300 °C**Preheat Maintenance:** Minimum specified temperature for every restart**Other :** None**GAS (QW - 408)**Percentage Composition  
**Gas(es) Mixture Flow Rate****Shielding :** N.A - -**Trailing :** N.A - -**Backing :** N.A - -**Other :** None**ELECTRICAL CHARACTERISTICS (QW-409)**

Weld Pass (es)	Process	Filler Metal		Current type & Polarity	Amps (Range)	Wire feed speed	Energy or Power (Range)	Volts (Range)	Travel speed	Other
		Classifi-cation	Diam-eter							
<b>Root&amp; Subsequent as required</b>	<b>SMAW</b>	<b>E 7018</b>	<b>2.5mm</b>	<b>DCEP</b>	<b>60 – 90A</b>	<b>N.A</b>	<b>N.A</b>	<b>22-34V</b>	<b>N.A</b>	<i>String for horizontal; Others Weave (Max 3 times Electrode Core Dia)</i>
	-do-	-do-	3.15mm	-do-	100-150A	-do-	-do-	-do-	-do-	
	-do-	-do-	4.0mm	-do-	150-200A	-do-	-do-	-do-	-do-	
	-do-	-do-	5.0mm	-do-	200-260A	-do-	-do-	-do-	-do-	

**Pulsing Current :** NA**Heat Input :** NA**Tungsten Electrode Size and Type :** NA**Mode of Metal Transfer for GMAW (FCAW):** NA**Others :** None**TECHNIQUE (QW-410)****String or Weave Bead:** string and/or weave**Orifice or Gas Cup Size :** NA**Initial / Interpass Cleaning :** chipping / brushing / grinding**Method of Back Gouging:** grinding/gouging if required**Oscillation :** NA**Contact tube to work distance :** NA**Multiple or Single Pass :** Multiple pass**Multiple or Single Electrodes :** Single electrode**Closed to out chamber :** NA**Peening :** Not allowed**Use of thermal processes :** NA**Other :** Clean weld area to remove oil, rust, grease, etc. prior to welding.**Prepared by****Welding Engineer**

N.A – Not Applicable

**Approved by****HEAD / Welding Engg**

**PQR**

Sl. No.	BHEL Terms	Supplier's ComplianceYES/NO
<b>1</b>	<b>Offers are accepted from:</b>	
1.a	Only Manufacturer's Offers shall be considered for the Tender Enquiry.	
<b>2</b>	<b>Supplier shall give list of In-House Facilities:</b>	
2.a	Vendor shall have in-House necessary Manufacturing facilities required for manufacturing and supply of item/s as per drawing/specification.	
2.b	BHEL reserves right to visit the Works of the Manufacturer for Physical verification of the Manufacturing facilities (as declared by them) and assessment of their Quality systems during Technical Evaluation of the Offers.	
<b>3</b>	<b>Experience:</b>	
3.a	Bidders shall submit the necessary documents proving their <b>Experience in Supplying same or similar items to any Power Plant equipment Manufacturer (worldwide or within India)</b> in last three years from the date of Enquiry. Documentary evidences to be submitted in the form of Customer's Purchase Order copies / Material Acceptance Report and item drawings/specifications. Documentary evidences submitted shall strictly meet all the technical requirement of the NIT.	
3.b	BHEL reserves right to verify the details from the Bidder's customers based on Documents submitted as a part of past experience. BHEL may ask for other relevant documents in line with above to review the capacity and capability of vendor with respect to enquired items.	
<b>4</b>	<b>Manufacturing Process Plan:</b>	
4.a	Bidders shall submit detailed Manufacturing process Plan along with the Technical Offer.	
<b>5</b>	<b>Annual Turnover:</b>	
5.a	Turnover of the supplier should be as per GeM (Government e-market place) guide lines (Maximum limit to be taken). Bidders should enclose Audited Balance sheets and Profit & Loss account statement of last three consecutive years in the Part I bid.	
<b>6</b>	<b>Others</b>	
6.a	Bidder will supply item/s exactly as per enquiry.	
<b>Note: Non Submission of the above requested documents/non compliance to the above points will result in rejection of the Offers without further Notice/Intimation to the Bidder and no correspondance will be entertained at later date.</b>		

**GENERAL COMMERCIAL TERMS & CONDITIONS OF ENQUIRY  
(FOR INDIAN VENDORS)**

Amendment- 25  
ANNEXURE-A

**ITEM DESCRIPTION:**

**ENQUIRY NO:**

Sl No	BHEL STANDARD TERMS & CONDITIONS	Confirmation of supplier (Yes/No)
1	<p>A) OFFER MUST BE SUBMITTED IN TWO PART BID SYSTEM NAMELY TECHNO-COMMERCIAL BID &amp; PRICE BID FOR THE ITEM AS PER ENQUIRY IN SEPARATE SEALED COVERS:</p> <p>(I) TECHNO – COMMERCIAL BID &amp; (II) PRICE BID SHOULD BE CLEARLY SUPERSCRIBED THE ENQUIRY NO. AND DUE DATE ON THE ENVELOPES.</p> <p>(B) UN-PRICED OFFER WITH TECHNICAL BID IS REQUIRED TO BE FURNISHED BY THE VENDOR. TECHNICAL OFFER SHOULD CLEARLY REFLECT AT LEAST OUR MATERIAL CODE, ITEM DESCRIPTION &amp; QUANTITY.</p> <p>(C) THE DIFFERENCE BETWEEN “UN-PRICED OFFER” AND “PRICED OFFER” SHOULD BE ONLY THE PRICES WHEREVER APPLICABLE. THE RATES AND AMOUNT SHOULD BE CLEARLY WRITTEN IN FIGURES AND WORDS BOTH WITHOUT ANY CUTTING / OVERWRITING.</p> <p>(D) <b>IMPORTANT POINT FOR VENDOR WHO HAVE NOT SUBMITTED THE SRF (SUPPLIER REGISTRATION FORM) SO FAR:</b> THE VENDORS, WHO HAVE NOT SUBMITTED THE SRF SO FAR, MUST SUBMIT THE SAME ALONG WITH PART- 1 BID. THE SRF TO BE DOWNLOADED FROM WWW.BHEL.COM OR <a href="https://herp.bhel.com">https://herp.bhel.com</a> .</p>	
2	BID SHOULD BE FREE FROM CORRECTION, OVERWRITING, USING CORRECTIVE FLUID, ETC. ANY INTERLINEATION , CUTTING , ERASURE OR OVERWRITING SHALL BE VALID ONLY IF THEY ARE ATTESTED UNDER FULL SIGNATURE(S) OF PERSON(S) SIGNING THE BID ELSE BID SHALL BE LIABLE FOR REJECTION .	
3	YOUR TECHNO COMMERCIAL BID SHOULD MENTION THAT PRICE BID HAS BEEN SENT IN A SEPARATE ENVELOPE GIVING ITS REFERENCE.	
4	VENDOR TO ENSURE THAT ITEM & QUANTITY MENTIONED IN THE OFFERS ARE EXACTLY SAME AS PER ENQUIRY. IF ANY DEVIATION IS THERE PARTY MUST MENTION SPECIFIC HEREWITH OTHERWISE BHEL SHALL CONSIDER THAT ITEM & QUANTITY AS REQUIRED IN ENQUIRY.	
5	PLEASE MAKE SURE THAT THERE IS NO DISCREPANCY IN BETWEEN ACCEPTED TERMS & CONDITIONS MENTIONED IN THE CHECK LIST AND QUOTATION SUBMITTED BY VENDOR AND IF FOUND SO THEN THE TERMS & CONDITIONS WHICH ARE BENEFICIAL TO BHEL WOULD ONLY BE CONSIDERED.	
6	THE TENDER RECEIVED AFTER 14:00 HRS ON THE DUE DATE WILL NOT BE CONSIDERED.	
7	PART-I CONTAINING THE TECHNO-COMMERCIAL BID WILL BE OPENED ON THE DATE AND TIME SPECIFIED IN THE ENQUIRY, IN THE PRESENCE OF THOSE TENDERERS WHO WISH TO ATTEND. PART-II i.e., PRICE BID WILL BE OPENED ONLY OF THOSE BIDDERS WHO ARE FOUND TECHNO-COMMERCIALLY SUITABLE AFTER SCRUTINY OF THEIR PART-I OFFERS.	
8	NO REVISED OFFERS WILL BE ACCEPTED UNLESS ASKED BY BHEL AFTER OPENING OF PART-1 BID IN ANY CASE.	
9	THE RATE OF GST SHOULD BE CLEARLY MENTIONED IN THE OFFER.	
10	VALIDITY OF OFFER SHOULD BE MINIMUM 90 DAYS FROM THE DATE OF TECHNO - COMMERCIAL BID OPENING OR 60 DAYS FROM THE REVERSE AUCTION DATE.	
11	BHEL RESERVES THE RIGHT TO REJECT THE OFFER, WHICH IS HAVING DEVIATIONS TO THE TERMS AND CONDITIONS GIVEN IN THE TENDER ENQUIRY.	
12	<b>PRICING TERMS:</b> PRICES ONCE QUOTED SHALL REMAIN FIRM WITHIN THE VALIDITY OR ANY EXTENSION THEREOF FOR PLACEMENT OF ORDER, TILL COMPLETE EXECUTION OF THE ORDER, WITHOUT ANY ESCALATION/INCREASE FOR ANY REASON, WHATSOEVER, UNLESS SPECIFICALLY PROVIDED FOR IN THE ENQUIRY & PO. IN CASE OF FOREIGN VENDORS, THE QUOTED PRICE SHALL BE TAKEN AS INCLUSIVE OF THIRD PARTY INSPECTION AND TESTING CHARGES AS CALLED FOR IN THE NIT.	
13	<b>BID EVALUATION:</b> UNLESS SPECIFIED IN THE TENDER, VENDOR MUST NOTE THAT BHEL WILL ARRIVE THE L1 STATUS FOR EACH ITEM ON LANDED COST BASIS. ACCORDINGLY, ORDER SHALL BE PLACED ON LOWEST BIDDER ON INDIVIDUAL ITEM BASIS ONLY, UNLESS BHEL ASK FOR TERMS OTHER THAN THIS ON EXCEPTION BASIS. IN THE COURSE OF EVALUATION, IF MORE THAN ONE BIDDER HAPPENS TO OCCUPY L-1 STATUS, EFFECTIVE L-1 WILL BE DECIDED BY SOLICITING DISCOUNTS FROM THE RESPECTIVE L-1 BIDDERS. IN CASE MORE THAN ONE BIDDERS HAPPENS TO OCCUPY THE L-1 STATUS EVEN AFTER SOLICITING DISCOUNT, THE L-1 BIDDER SHALL BE DECIDED BY A TOSS/DRAW OF LOTS, IN THE PRESENCE OF THE RESPECTIVE BIDDER(S) OR THEIR REPRESENTATIVE(S). RANKING WILL BE DONE ACCORDINGLY. BHEL'S DECISION IN SUCH SITUATION SHALL BE FINAL AND BINDING.	
14	<b>TERMS OF DELIVERY:</b> <b>I. FOR INDIGENOUS SUPPLIERS:</b> THE TERMS OF DELIVERY SHOULD BE QUOTED ON F.O.R. DESTINATION (BHEL HERP STORES VARANASI) BASIS ONLY (i.e. FREIGHT & INSURANCE ON VENDOR'S ACCOUNT ONLY). IF ANY BIDDER STILL QUOTES OTHER DELIVERY TERM IN PLACE OF BHEL HERP STORES, THEIR OFFER MAY NOT BE CONSIDERED FOR FURTHER PROCESSING. IT MUST BE SPECIFICALLY NOTED.	
15	IF ANY INDIAN SUPPLIERS ARRANGE SUPPLY FROM FOREIGN PRINCIPLES/WORKS, TERMS OF DELIVERY SHOULD BE QUOTED ON CIF JNPT MUMBAI (INDIA) SEA PORT BASIS ONLY (i.e. FREIGHT & INSURANCE ON VENDOR'S ACCOUNT UPTO JNPT MUMBAI (INDIA) SEA PORT) OR CFR MUMBAI AIRPORT. HOWEVER FREIGHT CHARGES AS PER BHEL TRANSPORT CONTRACT FROM JNPT MUMBAI SEAPORT/MUMBAI AIRPORT TO BHEL VARANASI FOR EACH ITEM WILL BE LOADED AT THE TIME OF TOTAL LANDED COST CALCULATION.	
16	INSURANCE CHARGES SHALL BE TO VENDOR'S ACCOUNT ONLY IF PRICE QUOTED ON BHEL HERP STORES BASIS. IN CASE PRICE QUOTED IS ON CIF JNPT MUMBAI BASIS/ CFR MUMBAI AIRPORT BASIS, INSURANCE UP TO CIF JNPT MUMBAI/ MUMBAI AIRPORT SHALL BE IN VENDOR ACCOUNT.	
17	<p><b>PAYMENT TERMS:</b></p> <p><b>I.FOR MSEs VENDORS:</b> 100% AGAINST SRV WITHIN 45 DAYS THROUGH EFT (ELECTRONIC FUND TRANSFER) FROM THE DATE OF RECEIPT OF MATERIAL (DATE OF SRV) AT BHEL HERP VARANASI STORES AS PER PO.</p> <p><b>II.FOR MEDIUM ENTERPRISES VENDORS:</b> 100% AGAINST SRV WITHIN 60 DAYS THROUGH EFT (ELECTRONIC FUND TRANSFER) FROM THE DATE OF RECEIPT OF MATERIAL (DATE OF SRV) AT BHEL HERP VARANASI STORES AS PER PO.</p> <p><b>III. FOR NON- MSME:</b> 100% AGAINST SRV WITHIN 90 DAYS THROUGH EFT (ELECTRONIC FUND TRANSFER) FROM THE DATE OF RECEIPT OF MATERIAL (DATE OF SRV) AT BHEL HERP VARANASI STORES AS PER PO.</p> <p><b>IV.BHEL HERP WILL MAKE PAYMENTS IN TWO PARTS: -</b></p> <p><b>PART-I:</b> BASIC INVOICE VALUE AND ALL OTHER CHARGES (EXCEPT GST AMOUNT) WILL BE PAID AS PER P.O. PAYMENT TERMS.</p> <p><b>PART-II:</b> GST PORTION OF INVOICE VALUE WILL BE PAID ONLY AFTER FULFILLING FOLLOWING CONDITIONS:</p> <p>(A) PAYMENT OF GST AMOUNT INTO GOVT. ACCOUNT BY SUPPLIER AGAINST INVOICE RAISED TO BHEL.</p> <p>(B) FILING OF GST RETURN</p> <p>(C) DISPLAY OF GST CREDIT AGAINST BHEL GSTIN NO.09AAACB4146P2ZC IN GSTR-2B ON GSTN PORTAL.</p> <p>Note: 1. PAYMENT WILL BE MADE AFTER ACCEPTANCE OF MATERIAL.</p> <p>2. ADVANCE PAYMENT IS NOT ACCEPTABLE BY BHEL HERP VARANASI IN ANY CASE.</p> <p>3. IF ANY SUPPLIER FALLS UNDER “NON MSE” OR “NON MEDIUM” CATEGORY, THEIR PAYMENT TERM WILL BE CONSIDERED AS NON MSME SUPPLIER PAYMENT WITHOUT ANY INTIMATION.</p>	
18	<b>LOADING OF PAYMENT TERM:</b> IN CASE OF DEVIATION, LOADING OF INTEREST RATE @SBI MCLR RATE + 6% (AS ON PART-1 OPENING DATE) SHALL BE LOADED WHILE ARRIVING AT LANDED COST TO BHEL.	
19	<b>LIQUIDATED DAMAGES/ LATE DELIVERY (LD) PENALTY CLAUSE:</b> SUBJECT TO FORCE MAJEURE CONDITIONS, FAILURE TO SUPPLY WITHIN PURCHASE ORDER DELIVERY SCHEDULE WILL MAKE THE SUPPLIER LIABLE TO AN UNCONDITIONAL PENALTY OF 0.5 % PER WEEK OR PART THEREOF SUBJECT TO THE MAXIMUM OF 10% OF THE UNDELIVERED PURCHASE ORDER VALUE EXCLUDING TAXES & DUTIES. NO GRACE PERIOD SHALL BE GIVEN.	
20	<p><b>LOADING OF LIQUIDATED DAMAGES (LD):</b> DEVIATION TO ABOVE STANDARD PENALTY CLAUSE, MAXIMUM LOADING OF 10% (IN CASE OF NON ACCEPTANCE OF LD CLAUSE) OR PART THEREOF (IN CASE OF PART ACCEPTANCE OF LD) SHALL BE LOADED WHILE ARRIVING LANDED COST TO BHEL.</p> <p><b>LOADING OF DELIVERY TERM:</b> FURTHER IF DEVIATION IS FOUND IN THE ACCEPTED DELIVERY TERM AS WELL AS ACCEPTED PENALTY TERM, SUITABLE LOADING BASED ON TRANSPORTATION TIME TO BE TAKEN SHALL BE LOADED WHILE ARRIVING LANDED COST TO BHEL HERP STORES WHICH MAY BE AS BELOW:</p> <p>(i) 1% OF THE BASIC COST FOR INDIAN SUPPLIERS,</p>	

**GENERAL COMMERCIAL TERMS & CONDITIONS OF ENQUIRY  
(FOR INDIAN VENDORS)**

**Amendment- 25  
ANNEXURE-A**

21	<b>DELIVERY PERIOD:</b> VENDOR SHOULD STRICTLY QUOTE THE DELIVERY PERIOD AS MENTIONED IN NIT.	
22	IF ANY VENDOR DOES NOT SUPPLY THE ITEM WITHIN THE PURCHASE ORDER DELIVERY PERIOD, BHEL MAY/MAY NOT ACCEPT THE SUPPLY AT ITS SOLE DISCRETION.	
23	<p><b>BANK GUARANTEE:</b> THE COST OF BHEL FREE ISSUE MATERIALS PER SET/PER ASSEMBLY AND TOTAL COST OF FIM FOR THE ENQUIRY ARE MENTIONED IN NIT. IN THIS REGARD:</p> <p>1 (a). PARTY WILL HAVE TO SUBMIT EQUAL AMOUNT OF SECURITY DEPOSIT <b>(IN THE FORM OF 10% BG/FDR/DD/CHEQUE/BANK TRANSFER AND 90% INDEMNITY BOND)</b> TOWARDS THE COST OF BHEL MATERIALS TO BE ISSUED TO THEM BEFORE THE ISSUE OF BHEL MATERIALS TO THEM. AT ANY POINT OF TIME, PROPORTIONATE SECURITY DEPOSIT OF TOTAL/CUMMULATIVE MATERIAL VALUE SHOULD BE MAINTAINED.</p> <p>(b) <b>IN CASE OF TRIAL/DEVELOPMENTAL ORDER, PARTY WILL HAVE TO SUBMIT 30% BG/FDR/DD/CHEQUE/BANK TRANSFER AND 70% INDEMNITY BOND TOWARDS THE COST OF BHEL FIM.</b></p> <p>2. BHEL MAY ASK THE SUPPLIER FOR SUBMISSION OF FULL SECURITY DEPOSIT AMOUNT OR PART DEPENDING UPON THE AVAILABILITY OF FREE ISSUE MATERIALS AT OUR END.</p> <p>3. PARTY MUST HAVE TO SUBMIT THE SAME WITHIN 02 WEEK TIME FROM THE DATE OF WRITTEN INTIMATION BY BHEL WITHOUT FAIL OTHERWISE IT WOULD TREATED AS FAILURE OF HONOURING PO TERMS AND ACCORDINGLY BHEL MAY CANCEL THE PURCHASE ORDER AND INITIATE ALTERNATE PROCUREMENT ACTION AT SUPPLIER RISK &amp; COST.</p> <p>4. IN CASE OF ABSENCE OF DESIRED SECURITY DEPOSIT AT BHEL END AND ALSO NON RESPONSE OF POINT NO. 03 AS ABOVE,</p> <p>I. BHEL MAY HOLD THE PENDING PAYMENTS OF SUPPLIER AVAILABLE AT BHEL <b>ON THEIR CONSENT.</b></p> <p>II. IF NO PAYMENT IS PENDING AT BHEL END, ACTION FOR ALTERNATE PROCUREMENT ACTION MAY BE INITIATED.</p> <p><b>5. THE FORMAT OF BG AND IB SHALL BE PER ATTACHED ANNEXURE-BG/FIM AND IB-FIM RESPECTIVELY.</b></p>	
24	TRANSPORTATION CHARGES FOR SENDING BHEL FREE ISSUE MATERIALS (FIM) TO THE PARTY WORKS WILL BE BORNE BY BHEL ONLY. THE FREIGHT CHARGES FOR SENDING THE BHEL FIM FROM HERP STORES TO PARTY'S WORK FOR EACH ITEM WILL BE LOADED AS PER BHEL TRANSPORT CONTRACT AT THE TIME OF TOTAL LANDED COST CALCULATION. HOWEVER, VARANASI/LOCAL BASED VENDORS WILL LIFT THE FIM FROM BHEL STORES AND BORNE ITS TRANSPORTATION CHARGES.	
25	IF BHEL ISSUES FREE ISSUE MATERIALS TO THE SUPPLIER, IT MUST BE RETURNED WITHIN THE TIME LIMIT AS PRESCRIBED IN GST LAW (PRESENTLY 01 (ONE) YEAR FROM THE DATE OF FREE ISSUE DATE) TO COMPLY THE GST RULES. IF ANY VENDOR DOES NOT RETURN THE BHEL FREE ISSUE MATERIALS AS MENTIONED ABOVE, THE FINANCIAL IMPLICATION ON ACCOUNT OF THIS, IF ANY, SHALL BE RECOVERED FROM THE PARTY BILLS.	
26	<p><b>REVERSE AUCTION:</b> BHEL SHALL BE RESORTING TO REVERSE AUCTION (RA) (GUIDELINES AS AVAILABLE ON <a href="http://WWW.BHEL.COM">WWW.BHEL.COM</a>) FOR THIS TENDER. RA SHALL BE CONDUCTED AMONG ALL THE TECHNO-COMMERCIALLY QUALIFIED BIDDERS.</p> <p>PRICE BIDS OF ALL TECHNO-COMMERCIALLY QUALIFIED BIDDERS SHALL BE OPENED AND SAME SHALL BE CONSIDERED AS INITIAL BIDS OF BIDDERS IN RA. IN CASE ANY BIDDER(S) DO (ES) NOT PARTICIPATE IN ONLINE REVERSE AUCTION, THEIR SEALED ENVELOPE PRICE BID ALONG WITH APPLICABLE LOADING, IF ANY, SHALL BE CONSIDERED FOR RANKING.</p>	
27	IF ANY OF THE VENDORS DO NOT ACCEPT THE ABOVE POINT MENTIONED AT SL. NO. 26, THEIR OFFER MAY BE LIABLE FOR REJECTION WITHOUT INTIMATION.	
28	<p><b>RISK PURCHASE:</b> IN CASE OF DELAY IN SUPPLIES/ DEFECTIVE SUPPLIES/NON EXECUTION OF PURCHASE ORDER ETC. (FOR DETAILS, REFER GUIDELINES FOR RISK PURCHASE), BHEL MAY CANCEL THE ORDER IN FULL OR PART THEREOF/ MAY ALSO MAKE THE PURCHASE OF SUCH MATERIALS FROM ELSEWHERE/ALTERNATIVE SOURCES AT THE RISK &amp; COST OF SUPPLIER. BHEL MAY ALSO MANUFACTURE THE ITEM IN-HOUSE IN PART OR FULL DEPENDING UPON THE URGENCY OF THE ITEM.</p> <p>GUIDELINES FOR <b>RISK PURCHASE</b> IS AVAILABLE ON BHEL WEBSITE "<a href="https://herp.bhel.com">https://herp.bhel.com</a>" at "Notice". RESPECTIVE BIDDERS / SUPPLIERS MAY REFER THIS GUIDELINE BEFORE SUBMITTING THEIR OFFER AGAINST BHEL, HERP TENDER ENQUIRIES. IN CASE RISK PURCHASE IS APPLIED, BHEL SHALL TAKE ACTION AGAINST THE NON-PERFORMING AND/OR DEFAULTING SUPPLIERS/ CONTRACTORS IN LINE WITH THIS GUIDELINE ONLY.</p>	
29	<p>BHEL MAY SHORT CLOSE/CANCEL AN ORDER AT ANY TIME DURING THE CURRENCY OF THE CONTRACT/PO IRRESPECTIVE OF THE PO DELIVERY DATE, IF</p> <p>(I) THE WORK PROGRESS OF THE VENDOR IS POOR, OR</p> <p>(II) THE DELIVERY REQUIREMENT OF THE ITEM IS VERY CRITICAL &amp; NOT BEING MET BY THE VENDOR ON WHICH ORDER HAS BEEN PLACED, OR</p> <p>(III) THERE IS NO RESPONSE FOR IMPROVEMENT IN DELIVERY AS PER BHEL REQUIREMENT,</p>	
30	THE OFFERS OF THE BIDDERS WHO ARE ON THE BANNED LIST AND ALSO THE OFFER OF THE BIDDERS, WHO ENGAGE THE SERVICES OF THE BANNED FIRMS, SHALL BE REJECTED. THE LIST OF BANNED FIRMS IS AVAILABLE ON BHEL WEB SITE <a href="http://www.bhel.com">www.bhel.com</a>	
31	<b>RESERVATION RIGHTS OF BHEL:</b> – BHEL RESERVES THE RIGHT TO REJECT ANY OR ALL QUOTATIONS WITHOUT ASSIGNING ANY REASONS THEREOF. BHEL ALSO RESERVES THE RIGHT TO INCREASE OR DECREASE THE TENDERED QUANTITIES. VENDORS SHOULD BE PREPARED TO ACCEPT ORDER FOR REDUCED QUANTITIES WITHOUT ANY EXTRA CHARGES. VENDOR SHOULD ALSO BE PREPARED FOR GIVING DISCOUNT IN CASE OF INCREASE IN QUANTITY.	
32	<b>NON-DISCLOSURE AGREEMENT:</b> ALL DRAWINGS AND STANDARDS ARE PROPRIETARY OF BHEL. IT MUST NOT BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY. ALL SUPPLIERS SHALL FURNISH NDAS (NON-DISCLOSURE AGREEMENT) AGAINST USE OF DOCUMENTS FURNISHED BY BHEL TOWARDS UN-AUTHORIZED USE EXCEPT FOR THE PURPOSE IT HAS BEEN FURNISHED.	
33	<p><b>A. SETTLEMENT OF DISPUTES &amp; ARBITRATION:</b></p> <p>I. ALL QUESTIONS/INTERPRETATIONS REGARDING SUBJECT MATTER OF THE CONTRACT SHALL BE DECIDED BY THE BHEL ON THE REQUEST OF THE VENDOR AND THE DECISION OF THE BHEL SHALL BE FINAL.</p> <p>II. IN CASE OF DISPUTE, STEPS SHALL BE TAKEN BY THE PARTIES TO THE CONTRACT TO SETTLE THE SAME THROUGH NEGOTIATIONS.</p> <p>III. IN CASE, DISPUTE IS NOT SETTLED IN NEGOTIATIONS, IT SHALL BE REFERRED TO CONCILIATOR APPOINTED BY THE COMPETENT AUTHORITY OF THE BHEL. <i>THE CONCILIATION PROCEEDINGS WITH RESPECT TO A DISPUTE AS DEFINED IN THE BHEL CONCILIATION SCHEME, 2018 AND SUBSEQUENT REVISIONS CAN BE INITIATED UNDER THE SCHEME AT ANY STAGE WHETHER BEFORE, DURING OR EVEN AFTER THE COMMENCEMENT OF ARBITRATION PROCEEDINGS OR LITIGATION BEFORE COURTS. THIS CONCILIATION SCHEME IS AVAILABLE ON OUR WEBSITES <a href="https://herp.bhel.com">https://herp.bhel.com</a> AND <a href="http://www.bhel.com">www.bhel.com</a>.</i></p> <p>IV. IN CASE DISPUTE IS NOT SETTLED IN CONCILIATION PROCEEDINGS, THE SAME SHALL BE REFERRED TO ARBITRATION AS PER CORPORATE GUIDELINES OF THE BHEL AND THE ARBITRATION PROCEEDING SHALL BE CONDUCTED AS PER PROVISIONS OF THE ARBITRATION AND CONCILIATION ACT, 1996 READ WITH CORPORATE GUIDELINE AS AMENDED FROM TIME TO TIME.</p> <p>V. THE VENDOR SHALL CONTINUE TO PERFORM THE CONTRACT, PENDING SETTLEMENT OF DISPUTE(S).</p> <p><b>B. JURISDICTION:</b> ALL DISPUTES OR DIFFERENCES ARISING OUT OF OR IN CONNECTIONS WITH THE CONTRACT SHALL BE SUBJECT TO THE EXCLUSIVE JURISDICTION OF THE COURT AT VARANASI (U.P.) ONLY.</p>	
34	<b>SPECIAL NOTE FOR BIDDERS:</b> THE QUOTATION SHOULD BE FROM PRINCIPAL / ORIGINAL EQUIPMENT MANUFACTURER ONLY. THE OFFER OF THOSE OEM, AUTHORISING THEIR TRADER / DEALER / DISTRIBUTOR TO QUOTE AND TAKE ORDER IS LIABLE FOR DISQUALIFICATION. SINCE BHEL PREFER TO DEAL DIRECTLY WITH OEM AND NOT THROUGH DEALER / TRADER / DISTRIBUTOR OF OEM, THEREFORE, OEM MUST DIRECTLY QUOTE, TAKE ORDER AND DELIVER THE MATERIAL UNDER THEIR GUARANTEE / WARRANTEE.	
35	<p>I. FOLLOWING DOCUMENTS SHOULD BE ENCLOSED AND ADDRESSED TO DGM (FINANCE) AND SAME SHALL BE DISPATCHED TO MM DEPTT. BHEL, HERP, TARNA, SHIVPUR, VARANASI-221003 FOR PAYMENT PURPOSE:</p> <p>a) 05 (FIVE) COPIES OF GST INVOICES</p> <p>b) COPY OF GR/RR.</p> <p>c) TEST CERTIFICATE AND GUARANTEE/WARRANTEE CERTIFICATE AND PDI REPORT, IF APPLICABLE. (ONE COPY).</p> <p>II. FURTHER TO ABOVE, 02 (TWO) COMPLETE SETS OF DOCUMENTS (COPIES OF ABOVE MENTIONED DOCUMENTS AT SL. NO. I FOR INDIAN SUPPLIERS (UNDER THIS CLAUSE) SHALL BE SENT FOR PURCHASE AND QUALITY DEPARTMENTS. ORIGINAL COPIES OF TC, GC, PDI REPORTS &amp; OTHER QUALITY PAPERS SHALL BE ATTACHED IN THE SET OF DOCUMENTS FOR QUALITY DEPARTMENTS.</p> <p>III. THE VENDOR SHOULD PROVIDE BILLS &amp; OTHER DOCUMENTS COMPLETE IN ALL RESPECT AS PER PURCHASE ORDER ALONGWITH DESPATCH OF MATERIALS. BHEL SHALL SEEK CLARIFICATION(S) (IF ANY) RELATED TO PAYMENT DOCUMENTS IN ONE GO. THE VENDOR SHOULD PROVIDE ALL SUCH CLARIFICATION(S) IMMEDIATELY. ANY DELAY IN PROCESSING OF PAYMENT, DUE TO NON RECEIPT OF CLARIFICATION(S) SOUGHT BY BHEL, SHALL BE ATTRIBUTABLE COMPLETELY TO VENDOR.</p> <p>IV. DIGITALLY SIGNED INVOICE IS ALSO ACCEPTABLE FOR PROCESSING OF PAYMENT.</p>	



**GENERAL COMMERCIAL TERMS & CONDITIONS OF ENQUIRY  
(FOR INDIAN VENDORS)**

**Amendment- 25  
ANNEXURE-A**

36	THE VENDOR SHALL ENSURE THAT THEIR BANK DETAILS ARE UPDATED WITH US FOR TIMELY PAYMENT THROUGH EFT (ELECTRONICS FUND TRANSFER).	
37	<b>GUIDELINES FOR SUSPENSION OF BUSINESS DEALINGS WITH SUPPLIERS/ CONTRACTORS:</b> THE REVISED GUIDELINES FOR SUSPENSION OF BUSSINESS DEALINGS ARE AVAILABLE ON BHEL WEBSITE AT “www.bhel.com” on “SUPPLIER REGISTRATION PAGE”. RESPECTIVE BIDDERS / SUPPLIERS MAY REFER THIS BEFORE QUOTING AS PER THEIR REQUIREMENT. ACTION AGAINST THE DEFAULTED SUPPLIERS/ CONTRACTORS’ SHALL BE TAKEN AS PER THESE GUIDELINES ONLY.	
38	VENDOR MUST FOLLOW THE SEQUENTIAL DELIVERY SCHEDULE i.e. ITEMS TO BE SUPPLIED IN SUCH A MANNER THAT THE PURCHASE ORDER HAVING OLDER DELIVERY SCHEDULE SHOULD BE SUPPLIED EARLIER AND PURCHASE ORDER HAVING LATTER DELIVERY SCHEDULE TO BE SUPPLIED LATTER. IF ANY VENDOR DOES NOT FOLLOW THE SEQUENTIAL DELIVERY SCHEDULE ESPECIALLY FOR SAME ITEM, BHEL MAY ACCOUNT FOR THE ITEM IN SEQUENTIAL MANNER OR MAY RECOVER THE FINANCIAL IMPLICATION.	
39	ALL ABOVE ACCEPTED TERMS & CONDITIONS SHALL BE PART OF PURCHASE ORDER WITH OR WITHOUT MENTIONING IN THE PO/CONTRACT BASED ON YOUR ACCEPTANCE AND OFFER SUBMITTED.	
40	<b>IMPORTANT INSTRUCTION:</b> I.VENDORS ARE REQUESTED TO QUOTE THEIR RATE WITH DESCRIPTION MENTIONED IN THE ENQUIRY CONSIDERING ALL TECHNICAL TERMS & CONDITIONS OF THE ENQUIRY. ALSO RATES QUOTED SHOULD BE EXACTLY AS PER SL. NO. OF HARD COPY OF THE ENQUIRY (IF ENQUIRY HAS BEEN FLOATED THROUGH CONVENTIONAL MODE) OR AS PER SL. NO. APPEARING IN THE e-Procurement PORTAL (IF ENQUIRY HAS BEEN FLOATED THROUGH e-Procurement) ONLY. IT MUST BE FOLLOWED UP TO AVOID CONFUSION AT LATER STAGES. ALSO RATES TO BE SUBMITTED BOTH IN NUMERICS AS WELL AS IN WORD. IN CASE OF DISCREPENCY, RATES SUBMITTED IN WORDS SHALL BE CONSIDERED FOR FURTHER PROCESSING. II.DOCUMENTS SUBMITTED WITH THE OFFER SHOULD BE SIGNED AND STAMPED IN EACH PAGE BY AUTHORIZED REPRESENTATIVE OF THE BIDDER. II.IIN CASE OF PDI, VENDOR SHALL RAISE ONLINE INSPECTION CALL IN ONLINE INSPECTION PORTAL/INTIMATE BHEL IN WRITTING (WHERE INSPECTION IS IN BHEL HERP SCOPE) AT LEAST 01 WEEK IN ADVANCE OR AS MUTUALLY AGREED PERIOD ABOUT THE DATE AND PLACE AT WHICH GOODS WILL BE READY FOR INSPECTION. IV.PURCHASER OR HIS AUTHORIZED REPRESENTATIVE SHALL BE ENTITLED TO CARRY OUT SURVEILLANCE INSPECTION OF MATERIAL AND WORKMANSHIP AT SELLER’S PREMISES OR AT HIS SUB-CONTRACTOR’S PREMISES AT ALL REASONABLE TIMES DURING EXECUTION OF THE CONTRACT. SUCH INSPECTION, EXAMINATION AND TESTING, IF MADE, SHALL NOT ABSOLVE THE SELLER FROM HIS OBLIGATIONS UNDER THE CONTRACT. V.SUCH PRE-DISPATCH INSPECTION, EXAMINATION AND TESTING, IF MADE, AT VENDOR’S WORKS SHALL NOT ABSOLVE THE SELLER FROM HIS OBLIGATIONS TO MANUFACTURE/MACHINING THE GOODS UNDER THE CONTRACT. IF DEFECTS ARE FOUND AT LATER STAGE, IT IS THE SOLE RESPONSIBILITY OF THE VENDOR TO REPLACE/RECTIFY THE SAME.	
41	<b>IMPORTANT CLAUSE FOR GST:</b> INPUT TAX CREDIT OF GST CAN BE AVAILED BY BHEL ONLY WHEN THE MATERIAL HAS BEEN PHYSICALLY RECEIVED AND GST INVOICE IS IN POSSESSION OF BHEL. THEREFORE, SUPPLIERS SHOULD ENSURE THE FOLLOWING IN RESPECT OF POS ISSUED BY BHEL: I. GST INVOICE SHOULD CONTAIN ADDRESS, GST NO. AND PAN NO. OF BHEL AS WELL AS OF SUPPLIER. APPLICABLE HSN CODE OF THE MATERIAL SHOULD BE INDICATED IN THE GST INVOICE. II. FIVE COPIES OF GST INVOICE AND LORRY RECEIPT MAY BE DESPATCHED ALONGWITH SHIPMENT OF THE GOODS IN ORDER TO AVOID ANY DELAY IN AVAILING INPUT CREDIT BY BHEL. III. DECLARE SUCH INVOICE IN HIS GSTR-1 RETURN FOR THE MONTH OF DESPATCH OF MATERIAL. IV. PAYMENT OF GST TO STATUTORY AUTHORITIES WITHIN PRESCRIBED TIME. V. 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. 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. VI. 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.  IN CASE GST CREDIT IS DELAYED /DENIED TO BHEL DUE TO NON OR DELAYED RECEIPT OF GOODS AND OR TAX INVOICE OR EXPIRY OF TIMELINE PRESCRIBED IN GST LAW FOR AVAILING SUCH ITC OR ANY OTHER REASON NOT ATTRIBUTABLE TO BHEL, GST AMOUNT SHALL BE RECOVERABLE FROM VENDOR ALONG WITH INTEREST /PENALTY LEVIABLE ON BHEL.  IN CASE SUPPLIERS DELAYS DECLARING SUCH INVOICE IN HIS RETURN AND GST CREDIT AVAILED BY BHEL IS DENIED OR REVERSED SUBSEQUENTLY AS PER GST LAW, GST AMOUNT PAID BY BHEL TOWARDS SUCH ITC REVERSAL SHALL BE RECOVERABLE FROM SUPPLIER ALONGWITH INTEREST LEVIED/LEVIABLE ON BHEL.  IN CASE OF RAISING ANY SUPPLEMENTARY TAX INVOICE (DEBIT/ CREDIT NOTE), THE SUPPLIER SHALL ISSUE THE SAME CONTAINING ALL THE DETAILS AS REFERRED TO IN SECTION 34 READ WITH SECTION 31 OF GST ACT & RULES REFERRED THERE UNDER .	
42	<b>STATUTORY VARIATION CLAUSE :</b> ANY INCREASE IN THE RATE OF GST SHALL BE PAYABLE ONLY FOR DELIVERIES COMPLETED WITHIN THE SCHEDULED DELIVERY PERIOD, IN OTHER WORDS INCREASE IN THE RATE OF GST SHALL NOT BE PAYABLE FOR VALUE OF CONSIGNMENT DELIVERED AFTER THE SCHEDULED PURCHASE ORDER DELIVERY PERIOD.2.NEW TAXES AND DUTIES , IF IMPOSED SUBSEQUENT TO DUE DATE OF OFFER SUBMISSION, BY STATUTORY AUTHORITY DURING CONTRACT PERIOD (INCLUDING EXTENSION IF THE SAME IS NOT ATTRIBUTABLE TO BIDDER) SHALL BE REIMBURSED BY BHEL ON PRODUCTION OF RELEVANT SUPPORTING DOCUMENTS TO THE SATISFACTION OF BHEL . HOWEVER, BIDDER SHALL TAKE PRIOR APPROVAL OF BHEL BEFORE DEPOSITING NEW TAXES AND DUTIES.	
43	<b>IMPORTANT INSTRUCTION FOR MSEs SUPPLIERS:</b> I. “MSE SUPPLIERS CAN AVAIL THE INTENDED BENEFITS ONLY IF THEY SUBMIT ALONG WITH OFFER, ATTESTED COPIES OF EITHER EM-II CERTIFICATE HAVING DEEMED VALIDITY (FIVE YEARS FROM THE DATE OF ISSUE OF ACKNOWLEDGEMENT IN EM-II) OR VALID NSIC CERTIFICATE OR EM-II CERTIFICATE ALONG WITH CA CERTIFICATE (FORMAT ENCLOSED AS PER ANNEXURE-1 WHERE DEEMED VALIDITY OF EM-II CERTIFICATE OF FIVE YEARS HAS EXPIRED) APPLICABLE FOR THE RELEVANT F/Y (LATEST AUDITED).DATE TO BE RECKONED FOR DETERMINING THE DEEMED VALIDITY WILL BE THE DATE OF BID OPENING (PART -1 IN CASE OF TWO PART BID). 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 OFFICE. II.IN CASE OF ANY CHANGE IN THE MSE STATUS OF THE BIDDER, IT SHALL BE RESPONSIBILITY OF THE BIDDER TO NOTIFY THE CHANGE AS A PART OF THE BID DOCUMENT. IF AT A LATER DATE IT COMES TO NOTICE OF BHEL, THAT THE CHANGE IN THE STATUS HAS NOT BEEN INTIMATED BY THE BIDDER AND THE ORDER IS OBTAINED UNDER THE PREMISE OF AN MSE, THEN BHEL WOULD CANCEL THE PENDING ORDER AGAINST THIS TENDER AND TAKE NECESSARY ACTION SUSPENSION OF THE BUSSINESS DEALING WITH THE BIDDER AS PER PROCUREMENT POLICY OF BHEL. III.25 % OF THE TENDERED QUANTITY IS EARMARKED FOR MSE SUPPLIERS IN THIS TENDER. IV.OUT OF THIS 25% TENDERED QUANTITY RESERVED FOR MSE SUPPLIERS, 6.25% SHALL BE EARMARKED FOR PROCUREMENT FROM MSEs OWNED BY SC/ST ENTREPRENEURS. V.OUT OF THIS 25% TENDERED QUANTITY RESERVED FOR MSE SUPPLIERS, 3% SHALL BE EARMARKED FOR PROCUREMENT FROM MSEs OWNED BY WOMEN. VI.IN CASE MSE VENDOR PARTICIPATING IN THE TENDER QUOTES WITHIN THE PRICE BAND OF “L1+15%”, THEY WILL BE ALLOWED TO SUPPLY THE 25% PORTION OF THE REQUIREMENT SUBJECT TO ACCEPTANCE OF L1 PRICE (ON LANDED COST BASIS) BY MSE VENDOR. IN CASE OF MORE THAN ONE SUCH MSE VENDOR WITHIN THE “L1+15% PRICE BAND” THE SUPPLY SHALL BE SHARED PROPORTIONATELY (TO 25% TENDERED QUANTITY). VII.IF THE L1 VENDOR HAPPENS TO BE A MSE VENDOR AGAINST ANY ITEM CODE, THEN 100% OF THE TENDERED QTY (FOR RESPECTIVE ITEM CODE) SHALL BE PROPOSED TO ORDER ON THE L1 (MSE) VENDOR, EVEN THOUGH THERE MAY BE OTHER MSE VENDORS WITHIN THE “L1+15% PRICE BAND”. VIII.IN CASE AFTER OPENING OF PRICE BID, IT IS SEEN THAT NO MSE HAS BECOME L1, THEN DEPENDING ON THE NATURE OF THE ITEM, IF IT IS NOT POSSIBLE TO SPLIT THE TENDERED ITEMS/QUANTITIES ON ACCOUNT OF REASONS LIKE CUSTOMER CONTRACT REQUIREMENTS OF SUPPLYING ONE MAKE FOR A GIVEN PROJECT OR TECHNICAL REASONS LIKE TENDERED ITEMS BEING A SYSTEM etc. THEN BHEL WOULD NOT COUNTER OFFER THE L1 PRICES EVEN THOUGH THERE MAY BE MSE BIDDERS WITHIN THE “L1+15% PRICE BAND” OF L1.	
44	THE <b>STARTUPS</b> AS DEFINED IN THE GAZETTE OF INDIA NOTIFICATION NO.: G.S.R. 127 (E) DATED 19/02/2019 WILL BE EXEMPTED FROM FULFILLING THE CRITERIA, IF MENTIONED, IN THE PQR (PRE-QUALIFYING REQUIREMENT) REGARDING PRIOR TURNOVER AND PRIOR EXPERIENCE. HOWEVER, THERE MAY BE CIRCUMSTANCES (LIKE PROCUREMENTS OF ITEMS RELATED TO PUBLIC SAFETY, HEALTH, CRITICAL SECURITY OPERATIONS AND EQUIPMENTS ETC.) WHERE BHEL MAY PREFER THE VENDORS TO HAVE PRIOR EXPERIENCE RATHER THAN GIVING ORDER TO NEW ENTITIES. FOR SUCH PROCUREMENTS, BHEL MAY NOT RELAX THE CRITERIA OF PRIOR EXPERIENCE/TURNOVER FOR THE STARTUPS.	
45	<b>PURCHASE PREFERENCE FOR INDIAN VENDORS:</b> FOR THIS PROCUREMENT, THE LOCAL CONTENT TO CATEGORIZE A SUPPLIER AS A CLASS I LOCAL SUPPLIER / CLASS II LOCAL SUPPLIER /NON LOCAL – SUPPLIER AND PURCHASE PREFERENCE TO CLASS I LOCAL SUPPLIER, IS AS DEFINED IN PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER	

**GENERAL COMMERCIAL TERMS & CONDITIONS OF ENQUIRY  
(FOR INDIAN VENDORS)**

**Amendment- 25  
ANNEXURE-A**

	<p>2017 DATED 04.06.2020 ISSUED BY DPIIT. IN CASE OF SUBSEQUENT ORDERS ISSUED BY THE NODAL MINISTRY, CHANGING THE DEFINITION OF LOCAL CONTENT FOR THE ITEMS OF THE NIT, THE SAME SHALL BE APPLICABLE EVEN IF ISSUED AFTER ISSUE OF THIS NIT, BUT BEFORE OPENING OF PART –II BIDS AGAINST THIS NIT.</p> <p><b>MODEL CLAUSE FOR TENDER.</b></p> <p>I. 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 THE COMPETENT AUTHORITY.</p> <p>II. "BIDDER" (INCLUDING THE TERM 'TENDERER', 'CONSULTANT' OR 'SERVICE PROVIDER' IN CERTAIN CONTEXTS) MEANS ANY PERSON OR FIRM OR COMPANY, INCLUDING ANY MEMBER OF A CONSORTIUM OR JOINT VENTURE (THAT IS AN ASSOCIATION OF SEVERAL PERSONS, OR FIRMS OR COMPANIES), EVERY ARTIFICIAL JURIDICAL PERSON NOT FALLING IN ANY OF THE DESCRIPTIONS OF BIDDERS STATED HEREINBEFORE, INCLUDING ANY AGENCY BRANCH OR OFFICE CONTROLLED BY SUCH PERSON, PARTICIPATING IN A PROCUREMENT PROCESS.</p> <p>III. "BIDDER FROM A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA" FOR THE PURPOSE OF THIS ORDER MEANS: -</p> <p>a) AN ENTITY INCORPORATED, ESTABLISHED OR REGISTERED IN SUCH A COUNTRY; OR</p> <p>b) A SUBSIDIARY OF AN ENTITY INCORPORATED, ESTABLISHED OR REGISTERED IN SUCH A COUNTRY; OR</p> <p>c) AN ENTITY SUBSTANTIALLY CONTROLLED THROUGH ENTITIES INCORPORATED, ESTABLISHED OR REGISTERED IN SUCH A COUNTRY; OR</p> <p>d) AN ENTITY WHOSE BENEFICIAL OWNER IS SITUATED IN SUCH A COUNTRY; OR</p> <p>e) AN INDIAN (OR OTHER) AGENT OF SUCH AN ENTITY; OR</p> <p>f) A NATURAL PERSON WHO IS A CITIZEN OF SUCH A COUNTRY; OR</p> <p>g) A CONSORTIUM OR JOINT VENTURE WHERE ANY MEMBER OF THE CONSORTIUM OR JOINT VENTURE FALLS UNDER ANY OF THE ABOVE</p> <p>IV. THE BENEFICIAL OWNER FOR THE PURPOSE OF (III) ABOVE WILL BE AS UNDER:</p> <p>1. IN CASE OF A COMPANY OR LIMITED LIABILITY PARTNERSHIP, THE BENEFICIAL OWNER IS THE NATURAL PERSON (S) WHO, WHETHER ACTING ALONE OR TOGETHER, OR THROUGH ONE OR MORE JURIDICAL PERSON, HAS A CONTROLLING OWNERSHIP INTEREST OR WHO EXERCISES CONTROL THROUGH OTHER MEANS.</p> <p>EXPLANATION –</p> <p>a. "CONTROLLING OWNERSHIP INTEREST" MEANS OWNERSHIP OF OR ENTITLEMENT TO MORE THAN TWENTY-FIVE PER CENT. OF SHARES OR CAPITAL OR PROFITS OF THE COMPANY</p> <p>b. "CONTROL" SHALL INCLUDE THE RIGHT TO APPOINT MAJORITY OF THE DIRECTORS OR TO CONTROL THE MANAGEMENT OR POLICY DECISIONS INCLUDING BY VIRTUE OF THEIR SHAREHOLDING OR MANAGEMENT RIGHTS OR SHAREHOLDER'S AGREEMENTS OF VOTING AGREEMENTS;</p> <p>2. IN CASE OF A PARTNERSHIP FIRM, THE BENEFICIAL OWNER IS THE NATURAL PERSON (S) WHO, WHETHER ACTING ALONE OR TOGETHER, OR THROUGH ONE OR MORE JURIDICAL OF CAPITAL OR PROFITS OF THE PARTNERSHIP;</p> <p>3. IN CASE OF AN UNINCORPORATED ASSOCIATION OR BODY OF INDIVIDUALS, THE BENEFICIAL OWNER IS THE NATURAL PERSON (S), WHO, WHETHER ACTING ALONE OR TOGETHER, OR THROUGH ONE OR MORE JURIDICAL PERSON, HAS OWNERSHIP OF OR ENTITLEMENT TO MORE THAN FIFTEEN PERCENT OF THE PROPERTY OF CAPITAL OF PROFITS OF SUCH ASSOCIATION OR BODY OF INDIVIDUALS;</p> <p>4. WHERE NO NATURAL PERSON IS IDENTIFIED UNDER (1) OR (2) OR (3) ABOVE, THE BENEFICIAL OWNER IS THE RELEVANT NATURAL PERSON WHO HOLDS THE POSITION OF SENIOR MANAGING OFFICIAL;</p> <p>5. IN CASE OF TRUST, THE IDENTIFICATION OF BENEFICIAL OWNER (S) SHALL INCLUDE IDENTIFICATION OF THE AUTHOR OF THE TRUST, THE TRUSTEE, THE BENEFICIARIES WITH FIFTEEN PERCENT OR MORE INTEREST IN THE TRUST AND ANY OTHER NATURAL PERSON EXERCISING ULTIMATE EFFECTIVE CONTROL OVER THE TRUST THROUGH A CHAIN OF CONTROL OR OWNERSHIP.</p> <p>V. AN AGENT IS A PERSON EMPLOYED TO DO ANY ACT FOR ANOTHER, OR TO REPRESENT ANOTHER IN DEALINGS WITH THIRD PERSON.</p> <p><b>CERTIFICATE:</b> IN ORDER TO AVOID THE BENEFITS, VENDORS TO SUBMIT (ALONG WITH OFFER) THE SELF-CERTIFICATION THAT THE ITEM OFFERED MEETS THE CONTENT REQUIREMENT FOR CLASS-I/ CLASS-II LOCAL SUPPLIER AS THE CASE MAY BE, INDICATING THE PERCENTAGE OF LOCAL CONTENT. AND SHALL GIVE DETAILS OF LOCATION AT WHICH THE LOCAL VALUE ADDITION IS MADE (refer attached Make in India (Model Certificate no I).</p>	
46	<p><b>FORCE MAJEURE :</b> NOTWITHSTANDING ANYTHING CONTAINED IN THE CONTRACT, NEITHER THE VENDOR NOR THE BHEL SHALL BE HELD RESPONSIBLE FOR TOTAL OR PARTIAL NON-EXECUTION OF ANY OF THE CONTRACTUAL OBLIGATIONS, SHOULD THE OBLIGATION BECOME UNREASONABLY ONEROUS OR IMPOSSIBLE DUE TO OCCURRENCE OF A 'FORCE MAJEURE' WHICH DIRECTLY AFFECTS THE OBLIGATIONS TO BE PERFORMED BY THE BHEL OR THE VENDOR ; SUCH EVENTS INCLUDE WAR, MILITARY OPERATIONS OF ANY NATURE, BLOCKAGES, REVOLUTIONS, INSURRECTIONS, RIOTS, CIVIL COMMOTIONS, INSURGENCY, SABOTAGE, ACTS OF PUBLIC ENEMY, FIRES, EXPLOSION, EPIDEMICS, QUARANTINE RESTRICTIONS, FLOODS, EARTHQUAKE, OR ACTS OF GOD, RESTRICTIONS BY GOVT. AUTHORITIES; OVER WHICH THE VENDOR OR THE BHEL HAS NO CONTROL. THE PARTY CLAIMING TO BE AFFECTED BY FORCE MAJEURE SHALL NOTIFY THE OTHER PARTY IN WRITING WITHOUT DELAY, WITHIN TWO WEEKS ON THE INTERVENTION AND ON THE CESSATION OF SUCH CIRCUMSTANCE. EXTENSION OF TIME SOUGHT BY THE VENDOR ALONG WITH SUPPORTING EVIDENCE AND SO GRANTED BY THE BHEL FOR THE SUPPLY/ WORK AFFECTED, IF ANY, SHALL NOT BE CONSTRUED AS WAIVER IN RESPECT OF REMAINING DELIVERIES. RESCHEDULING OF DELIVERIES ON ACCOUNT OF FORCE MAJEURE CONDITIONS, IF SO AGREED BY THE BHEL, WILL NOT ENTAIL THE VENDOR TO CLAIM ANY INCREASE IN THE PRICE ON WHATSOEVER ACCOUNT. NOTWITHSTANDING ABOVE PROVISIONS, BHEL SHALL RESERVE THE RIGHT TO CANCEL THE ORDER/ CONTRACT, WHOLLY OR PARTLY, IN ORDER TO MEET THE OVERALL PROJECT SCHEDULE AND MAKE ALTERNATIVE ARRANGEMENTS. IF DEEMED NECESSARY, BHEL MAY TAKEOVER PARTLY PROCESSED MATERIAL AT A MUTUALLY AGREED PRICE.</p>	
47	<p><b>FRAUD PREVENTION POLICY :</b> THE BIDDER ALONG WITH ITS ASSOCIATE/ COLLABORATORS/ SUB-CONTRACTORS/ SUB-VENDORS/ CONSULTANTS/ SERVICE PROVIDERS SHALL STRICTLY ADHERE TO BHEL FRAUD PREVENTION POLICY DISPLAYED ON BHEL WEBSITE WWW.BHEL.COM AND SHALL IMMEDIATELY BRING TO THE NOTICE OF BHEL MANAGEMENT ABOUT ANY FRAUD OR SUSPECTED FRAUD AS SOON AS IT COMES TO THEIR NOTICE.</p>	
48	<p><b>SHORT SHIPMENTS/ WARRANTY/GUARANTEE REPLACEMENTS:</b> IN CASE OF ANY SHORT SHIPMENT DURING INITIAL SUPPLY WHICH IS SUBSEQUENTLY DISPATCHED BY THE VENDOR OR ANY GUARANTEE / WARRANTY REPLACEMENTS SHALL BE DISPATCHED ON "FOR-BHEL STORES/DESIGNATED DESTINATION" BASIS FOR INDIGENOUS ITEMS. TAXES, IF ANY PAID BY INDIGENOUS VENDOR FOR GUARANTEE /WARRANTEE REPLACEMENT, REPAIR ACTIVITY EXCLUDING SHORT SUPPLY SHALL BE TO VENDOR'S ACCOUNT ONLY. THE VENDOR HAS TO RAISE A CREDIT NOTE FOR SHORT SUPPLIED QUANTITY AS PER GST PROVISIONS.</p>	
49	<p><b>E WAY BILL:</b> THE SUPPLIER HAS TO ARRANGE FOR E WAY BILL AS APPLICABLE FOR ANY MOVEMENT OF GOODS ALONG WITH OTHER PRESCRIBED DOCUMENTS AS PER GST LAW. THE SUPPLIER HAS ALSO TO COMPLY WITH ANY AMENDMENT AS PRESCRIBED FROM TIME TO TIME UNDER E WAY BILL RULE. ANY FINANCIAL IMPLICATION ARISES ON BHEL DUE TO NONCOMPLIANCE OF E WAY BILL RULE WILL BE PASSED ON TO THE SUPPLIER.</p>	
50	<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 EXISTANT POLICIES / GUIDELINES.</p>	
51	<p>THE BIDDER SHALL REGISTER THEMSELVES ON GEM PORTAL AND SHALL QUOTE THEIR GEM SELLER ID IN THEIR OFFER. GEM SELLER ID IS MANDATORY FOR PLACEMENT OF PURCHASE ORDER EXCEPT IN CASES WHERE FREE ISSUE MATERIAL IS TO BE ISSUED BY BHEL .</p>	
52	<p><b>REJECTION/REPLACEMENT:</b></p> <p>THE SELLER SHALL ARRANGE REPLACEMENT / REPAIR UNDER ITS OBLIGATION UNDER THE CONTRACT. SELLER SHALL BE GIVEN GROUND RENT FREE PERIOD OF 90 DAYS FROM THE DATE OF REJECTION TO LIFT REJECTED MATERIAL. BEYOND 90 DAYS, A GROUND RENT OF 0.25% OF VALUE OF REJECTED MATERIAL PER WEEK WILL BE LEVIED FOR A MAXIMUM PERIOD OF 4 WEEKS. BEYOND THIS PERIOD SUPPLIER FORFEITS THEIR RIGHT TO THE MATERIALS.</p>	
53	<p><b>CONFLICT OF INTEREST AMONG BIDDERS/AGENTS:</b></p> <p>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</p> <p>a) THEY HAVE CONTROLLING PARTNER (S) IN COMMON; OR</p> <p>b) THEY RECEIVE OR HAVE RECEIVED ANY DIRECT OR INDIRECT SUBSIDY FINANCIAL STAKE FROM ANY OF THEM; OR</p> <p>c) THEY HAVE THE SAME LEGAL REPRESENTATIVE/AGENT FOR PURPOSES OF THIS BID; OR</p> <p>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</p> <p>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; OR</p>	

**GENERAL COMMERCIAL TERMS & CONDITIONS OF ENQUIRY  
(FOR INDIAN VENDORS)**

**Amendment- 25  
ANNEXURE-A**

	<p>f) 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:</p> <p>1. THE PRINCIPAL MANUFACTURER DIRECTLY OR THROUGH ONE INDIAN AGENT ON HIS BEHALF; AND</p> <p>2. INDIAN/FOREIGN AGENT ON BEHALF OF ONLY ONE PRINCIPAL; OR</p> <p>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</p> <p>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.</p>	
54	VENDOR MUST VISIT OUR WEBSITE <a href="https://herp.bhel.com">https://herp.bhel.com</a> REGULARLY FOR ENQUIRY/PO/CLARIFICATIONS/FOR ANY LATEST UPDATES.	
55	MSME VENDORS CAN AVAIL BENEFITS OF PAYMENT THROUGH TREDS/RXIL.	
56	<p>"THE OFFERS OF THE BIDDERS WHO ARE UNDER SUSPENSION AS ALSO THE OFFERS OF THE BIDDERS, WHO ENGAGE THE SERVICES OF THE FIRMS DEBARRED ACROSS BHEL, SHALL BE REJECTED. THE LIST OF FIRMS DEBARRED ACROSS BHEL IS AVAILABLE ON BHEL WEBSITE WWW.BHEL.COM.</p> <p>1.0 INTEGRITY COMMITMENT, PERFORMANCE OF THE CONTRACT AND PUNITIVE ACTION THEREOF:</p> <p>1.1. COMMITMENT BY BHEL: BHEL COMMITS TO TAKE ALL MEASURES NECESSARY TO PREVENT CORRUPTION IN CONNECTION WITH THE TENDER PROCESS AND EXECUTION OF THE CONTRACT.</p> <p>BHEL WILL DURING THE TENDER PROCESS TREAT ALL BIDDER(S) IN A TRANSPARENT AND FAIR MANNER, AND WITH EQUITY.</p> <p>1.2. COMMITMENT BY BIDDER/ SUPPLIER/ CONTRACTOR:</p> <p>1.2.1. THE BIDDER/ SUPPLIER/ CONTRACTOR COMMIT TO TAKE ALL MEASURES TO PREVENT CORRUPTION AND WILL NOT DIRECTLY OR INDIRECTLY INFLUENCE ANY DECISION OR BENEFIT WHICH HE IS NOT LEGALLY ENTITLED TO NOR WILL ACT OR OMIT IN ANY MANNER WHICH TANTAMOUNT TO AN OFFENCE PUNISHABLE UNDER ANY PROVISION OF THE INDIAN PENAL CODE, 1860 OR ANY OTHER LAW IN FORCE IN INDIA.</p> <p>1.2.2. THE BIDDER/ SUPPLIER/ CONTRACTOR 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 AND SHALL ADHERE TO RELEVANT GUIDELINES ISSUED FROM TIME TO TIME BY GOVT. OF INDIA/ BHEL.</p> <p>1.2.3. THE BIDDER/ SUPPLIER/ CONTRACTOR WILL PERFORM/ EXECUTE THE CONTRACT AS PER THE CONTRACT TERMS &amp; CONDITIONS AND WILL NOT DEFAULT WITHOUT ANY REASONABLE CAUSE, WHICH CAUSES LOSS OF BUSINESS/ MONEY/ REPUTATION, TO BHEL.</p> <p>IF ANY BIDDER/ SUPPLIER/ CONTRACTOR DURING PRE-TENDERING/ TENDERING/ POST TENDERING/ AWARD/ EXECUTION/ POST-EXECUTION STAGE INDULGES IN MALPRACTICES, CHEATING, BRIBERY, FRAUD OR AND OTHER MISCONDUCT OR FORMATION OF CARTEL SO AS TO INFLUENCE THE BIDDING PROCESS OR INFLUENCE THE PRICE OR ACTS OR OMMITS IN ANY MANNER WHICH TANTAMOUNT TO AN OFFENCE PUNISHABLE UNDER ANY PROVISION OF THE INDIAN PENAL CODE, 1860 OR ANY OTHER LAW IN FORCE IN INDIA, THEN, ACTION MAY BE TAKEN AGAINST SUCH BIDDER/ SUPPLIER/ CONTRACTOR AS PER EXTANT GUIDELINES OF THE COMPANY AVAILABLE ON WWW. BHEL.COM AND/OR UNDER APPLICABLE LEGAL PROVISIONS".</p>	
57	<p><b>BID SECURITY OR EARNEST MONEY DEPOSIT (EMD):</b> TO SAFE GUARD AGAINST A BIDDER'S WITHDRAWING OR ALTERING ITS/ HIS BID DURING THE BID VALIDITY PERIOD, BID SECURITY [ALSO KNOWN AS EARNEST MONEY DEPOSIT (EMD)] SHALL BE OBTAINED FROM THE BIDDERS ALONG WITH THEIR BIDS (EXCEPT MICRO AND SMALL ENTERPRISES (MSES) OR STARTUPS AS RECOGNIZED BY DEPARTMENT FOR PROMOTION OF INDUSTRY AND INTERNAL TRADE (DPIIT)). THE AMOUNT OF EMD SHALL BE AS MENTIONED IN ENQUIRY.</p> <p><b>1. MODES OF DEPOSIT</b></p> <p>A) THE EMD MAY BE ACCEPTED ONLY IN THE FOLLOWING FORMS AND THE SAME MUST BE SUBMITTED BEFORE TENDER OPENING:</p> <p>(I) ELECTRONIC FUND TRANSFER CREDITED IN BHEL ACCOUNT.</p> <p>(II) BANKER'S CHEQUE/ PAY ORDER/ DEMAND DRAFT, IN FAVOUR OF BHEL.</p> <p>(III) FIXED DEPOSIT RECEIPT (FDR).(IN THE NAME OF " BIDDER'S NAME A/C BHEL")</p> <p>(IV) BANK GUARANTEE FROM ANY OF THE SCHEDULED BANKS.</p> <p>(V) INSURANCE SURETY BONDS.</p> <p>B) IN CASE THE EMD IS MORE THAN RUPEES TWO LAKH AND IN CASE OF FOREIGN BIDDERS, IT MAY BE IN THE FORM OF A BANK GUARANTEE (IN EQUIVALENT FOREIGN EXCHANGE AMOUNT, IN CASE OF FOREIGN BIDDERS) ISSUED/ CONFIRMED FROM ANY OF THE SCHEDULED COMMERCIAL BANK IN INDIA IN AN ACCEPTABLE FORM. THE EMD SHALL REMAIN VALID FOR A PERIOD OF 45 (FORTY-FIVE) DAYS BEYOND THE FINAL BID VALIDITY PERIOD.</p> <p><b>2. FORFEITURE OF EMD</b></p> <p>I) A BIDDER'S EMD WILL BE FORFEITED IF THE BIDDER WITHDRAWS OR AMENDS ITS/HIS TENDER OR IMPAIRS OR DEROGATES FROM THE TENDER IN ANY RESPECT WITHIN THE PERIOD OF VALIDITY OF THE TENDER OR IF THE SUCCESSFUL BIDDER FAILS TO FURNISH THE REQUIRED PERFORMANCE SECURITY WITHIN THE SPECIFIED PERIOD MENTIONED IN THE TENDER.</p> <p>(II) EMD BY THE TENDERER SHALL BE WITHHELD IN CASE ANY ACTION ON THE BIDDER IS ENVISAGED UNDER THE PROVISIONS OF EXTANT "GUIDELINES ON SUSPENSION OF BUSINESS DEALINGS WITH SUPPLIERS/ CONTRACTORS" AND FORFEITED/ RELEASED BASED ON THE ACTION AS DETERMINED UNDER THESE GUIDELINES.</p> <p><b>3. RETURN OF EMD</b></p> <p>(I) BID SECURITIES OF THE UNSUCCESSFUL BIDDERS SHALL BE RETURNED TO BIDDER AT THE EARLIEST AFTER EXPIRY OF THE FINAL BID VALIDITY PERIOD AND LATEST BY THE 30TH DAY AFTER THE AWARD OF THE CONTRACT. HOWEVER, IN CASE OF TWO PACKET OR TWO STAGE BIDDING, BID SECURITIES OF UNSUCCESSFUL BIDDERS DURING FIRST STAGE I.E. TECHNICAL EVALUATION ETC. SHALL BE RETURNED WITHIN 30 DAYS OF DECLARATION OF RESULT OF FIRST STAGE I.E. TECHNICAL EVALUATION ETC.</p> <p>(II) BID SECURITY SHALL BE REFUNDED TO THE SUCCESSFUL BIDDER ON CONCLUSION OF THE ORDER/ RECEIPT OF A PERFORMANCE SECURITY (IF CALLED IN THE TENDER).</p> <p>(III) EMD SHALL NOT CARRY ANY INTEREST.</p>	
58	<p><b>PERFORMANCE SECURITY (PS):</b> TO ENSURE DUE PERFORMANCE OF THE CONTRACT, PERFORMANCE BANK GUARANTEE (PBG) OR SECURITY DEPOSIT (SD), HEREAFTER REFERRED AS PERFORMANCE SECURITY SHALL BE OBTAINED FROM THE SUCCESSFUL BIDDER AWARDED THE CONTRACT. THE PERFORMANCE SECURITY OF REQUIRED AMOUNT IS TO BE SUBMITTED BY THE DATE SPECIFIED IN THE PO/CONTRACT.</p> <p><b>1. MODES OF DEPOSIT:</b></p> <p>A) PERFORMANCE SECURITY MAY BE FURNISHED IN THE FOLLOWING FORMS:</p> <p>(I) LOCAL CHEQUES OF SCHEDULED BANKS (SUBJECT TO REALIZATION)/ PAY ORDER/ DEMAND DRAFT/ ELECTRONIC FUND TRANSFER IN FAVOUR OF BHEL.</p> <p>(II) BANK GUARANTEE FROM SCHEDULED BANKS / PUBLIC FINANCIAL INSTITUTIONS AS DEFINED IN THE COMPANIES ACT. THE BANK GUARANTEE FORMAT SHOULD HAVE THE APPROVAL OF BHEL.</p> <p>(III) FIXED DEPOSIT RECEIPT ISSUED BY SCHEDULED BANKS / PUBLIC FINANCIAL INSTITUTIONS AS DEFINED IN THE COMPANIES ACT (FDR SHOULD BE IN THE NAME OF THE <u>CONTRACTOR, A/C BHEL</u>).</p> <p>(IV) SECURITIES AVAILABLE FROM INDIAN POST OFFICES SUCH AS NATIONAL SAVINGS CERTIFICATES, KISAN VIKAS PATRAS ETC. (HELD IN THE NAME OF CONTRACTOR FURNISHING THE SECURITY AND DULY ENDORSED/ HYPOTHECATED/ PLEDGED, AS APPLICABLE, IN FAVOUR OF BHEL).</p> <p>(V) INSURANCE SURETY BOND.</p> <p>(NOTE: BHEL WILL NOT BE LIABLE OR RESPONSIBLE IN ANY MANNER FOR THE COLLECTION OF INTEREST OR RENEWAL OF THE DOCUMENTS OR IN ANY OTHER MATTER CONNECTED THEREWITH)</p> <p>B) IN CASE OF GTE TENDERS, THE PERFORMANCE SECURITY SHALL BE IN THE SAME CURRENCY AS THE CONTRACT AND MUST CONFORM TO UNIFORM RULES FOR DEMAND GUARANTEES (URDG 758) - AN INTERNATIONAL CONVENTION REGULATING INTERNATIONAL SECURITIES.</p> <p>(C) PERFORMANCE SECURITY IS TO BE FURNISHED WITHIN A SPECIFIED DATE (GENERALLY 14(FOURTEEN) DAYS AFTER NOTIFICATION OF THE AWARD) AND IT SHOULD REMAIN VALID FOR A PERIOD OF 60 (SIXTY) DAYS BEYOND THE DATE OF COMPLETION OF ALL CONTRACTUAL OBLIGATIONS OF THE SUPPLIER, INCLUDING WARRANTY OBLIGATIONS.</p> <p><b>2. FORFEITURE OF PERFORMANCE SECURITY:</b> THE PERFORMANCE SECURITY WILL BE FORFEITED AND CREDITED TO BHEL'S ACCOUNT IN THE EVENT OF A BREACH OF CONTRACT BY THE SUPPLIER.</p> <p><b>3. RETURN OF PERFORMANCE SECURITY (PS):</b> PS SHALL BE REFUNDED TO THE BIDDER WITHOUT INTEREST, AFTER HE DULY PERFORMS AND COMPLETES THE CONTRACT IN ALL RESPECTS BUT NOT LATER THAN 60(SIXTY) DAYS OF COMPLETION OF ALL SUCH OBLIGATIONS INCLUDING THE WARRANTY UNDER THE CONTRACT.</p>	

**GENERAL COMMERCIAL TERMS & CONDITIONS OF ENQUIRY**  
**(FOR INDIAN VENDORS)**

Amendment- 25  
ANNEXURE-A

	<b>4. THE PERFORMANCE SECURITY SHALL NOT CARRY ANY INTEREST.</b>	
59	<b>BREACH OF CONTRACT, REMEDIES AND TERMINATION:</b> IN CASE OF BREACH OF CONTRACT, WHEREVER THE VALUE OF SECURITY INSTRUMENTS LIKE PERFORMANCE BANK GUARANTEE AVAILABLE WITH BHEL AGAINST THE SAID CONTRACT IS ATLEAST 10% OF THE CONTRACT VALUE, THE SAME BE ENCASHED. IN CASE THE VALUE OF THE SECURITY INSTRUMENTS AVAILABLE IS LESS THAN 10% OF THE CONTRACT VALUE, THE BALANCE AMOUNT BE RECOVERED FROM OTHER FINANCIAL REMEDIES (I.E. AVAILABLE BILLS OF THE CONTRACTOR, RETENTION AMOUNT, ETC. WITH BHEL) OR LEGAL REMEDIES BE PURSUED. FURTHER, LEVY OF LIQUIDATED DAMAGES, DEBARMENT, TERMINATION, DE-SCOPING, SHORT-CLOSURE, ETC., SHALL BE APPLIED AS PER PROVISIONS OF THE CONTRACT.	

NOTE:

1. PLEASE FILL IN THIS FORMAT AND SEND COMPULSORILY ALONG WITH QUOTATION WITH VENDOR'S SEAL, SIGNATURE AND DATE.

**SIGNATURE ALONG WITH SEAL AND DATE:**

**(C.V.K. Singh)**  
**Sr. Manager (Purchase)**

**(Ashok Kumar Shrivastava)**  
**Sr. Manger (Finance)**

**On Bidder's office letter pad**

## **Make in India (Model Certificate) Annexure-I**

### **Self-Declaration**

<b>Enquiry No.</b>	
<b>Enquiry Date</b>	

In line with Government public procurement order Number P-45021/2/2017-B.E-II dated 15.06.2017, and further modified order dt. 28.05.2018, 29.05-2019 and 04.06.2020

I / We hereby declare that I / We are a "Local Supplier" meeting the requirement of minimum local content (.....%) defined in the above government notification for the goods against above mentioned enquiry Number.

Details of location at which local value addition will be made is as follows:

Door No.	
Street / Address 1	
Street / Address 2	
District	
State	
Country	
PIN Code	

We also understand that the false declarations will be considered as breach of Integrity and liable for action.

**For Company Name:**

**Seal:**

**Signature:**

**Date:**

**Place:**

(Please fill all Yellow color field )