



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

**TCN - 04**

Ref: PSER:SCT:IIS-B1007:TCN-04

Date: 02-05-2009

|     |   |   |
|-----|---|---|
| Sub | Tender change notice (TCN) 04.  |   |
| Job | ERECTION, TESTING & COMMISSIONING OF 3X200 TPH GAS FIRED BOILER WITH AUXILLIARIES AND PIPINGS AT 3X18 MW POWER & BLOWING STATION, IISCO STEEL PLANT AT BURNPUR, WEST BENGAL |   |
| Ref | 1.0   | Tender no Ref: <b>PSER:SCT:IIS-B1007:09</b>   |
| Ref | 2.0   | BHEL's NIT vide reference no Ref: <b>PSER:SCT:IIS-B1007:09</b> dated 11-04-2009.          |
|     | 3.0   | BHEL's TCN-01 vide reference no Ref: <b>PSER:SCT:IIS-B1007:09:TCN-01</b> dated 18-04-2009 |
|     | 4.0   | BHEL's TCN-02 vide reference no Ref: <b>PSER:SCT:IIS-B1007:09:TCN-02</b> dated 28-04-2009 |
|     | 5.0   | BHEL's TCN-03 vide reference no Ref: <b>PSER:SCT:IIS-B1007:09:TCN-03</b> dated 28-04-2009 |
|     | 6.0   | Other references (if any).  |

With reference to above, following points, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 Technical clarifications attached vide annexure-I.
- 2.0 Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
- 3.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

DGM (SCT)

Encl

- 1.0 Revised format of 'No deviation certificate'.
- 2.0 Technical clarifications (annexure-I)
- 3.0 G. A. Drawing(2 nos)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 23211798/ 1691

**Annexure - III****FORMAT FOR NO DEVIATION CERTIFICATE**  
**(To be submitted in the bidder's letter head)**

TO

**Bharat Heavy Electricals Limited,  
POWER SECTOR – EASTERN REGION  
2nd FLOOR, Block-DJ, Plot- 9/1, SECTOR- II  
SALT LAKE CITY KOLKATA – 700 091**

Kind Attention : DGM - SCT

|     |   |   |
|-----|---|---|
| SUB | NO DEVIATION CERTIFICATE  |   |
| JOB | ERECTION, TESTING & COMMISSIONING OF 3X200 TPH GAS FIRED BOILER WITH AUXILLIARIES AND PIPINGS AT 3X18 MW POWER & BLOWING STATION, IISCO STEEL PLANT AT BURNPUR, WEST BENGAL |   |
| Ref | 1.0   | Tender no Ref: <b>PSER:SCT:IIS-B1007:09</b>   |
|     | 2.0   | BHEL's NIT vide reference no Ref: <b>PSER:SCT:IIS-B1007:09</b> dated 11-04-2009.          |
|     | 3.0   | BHEL's TCN-01 vide reference no Ref: <b>PSER:SCT:IIS-B1007:09:TCN-01</b> dated 18-04-2009 |
|     | 4.0   | BHEL's TCN-02 vide reference no Ref: <b>PSER:SCT:IIS-B1007:09:TCN-02</b> dated 28-04-2009 |
|     | 5.0   | BHEL's TCN-03 vide reference no Ref: <b>PSER:SCT:IIS-B1007:09:TCN-03</b> dated 28-04-2009 |
|     | 6.0   | BHEL's TCN-04 vide reference no Ref: <b>PSER:SCT:IIS-B1007:09:TCN-04</b> dated 02-05-2009 |
|     | 7.0   | Other references (if any).  |

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website and in case of observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT and convey our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer strictly in accordance with tender instructions.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

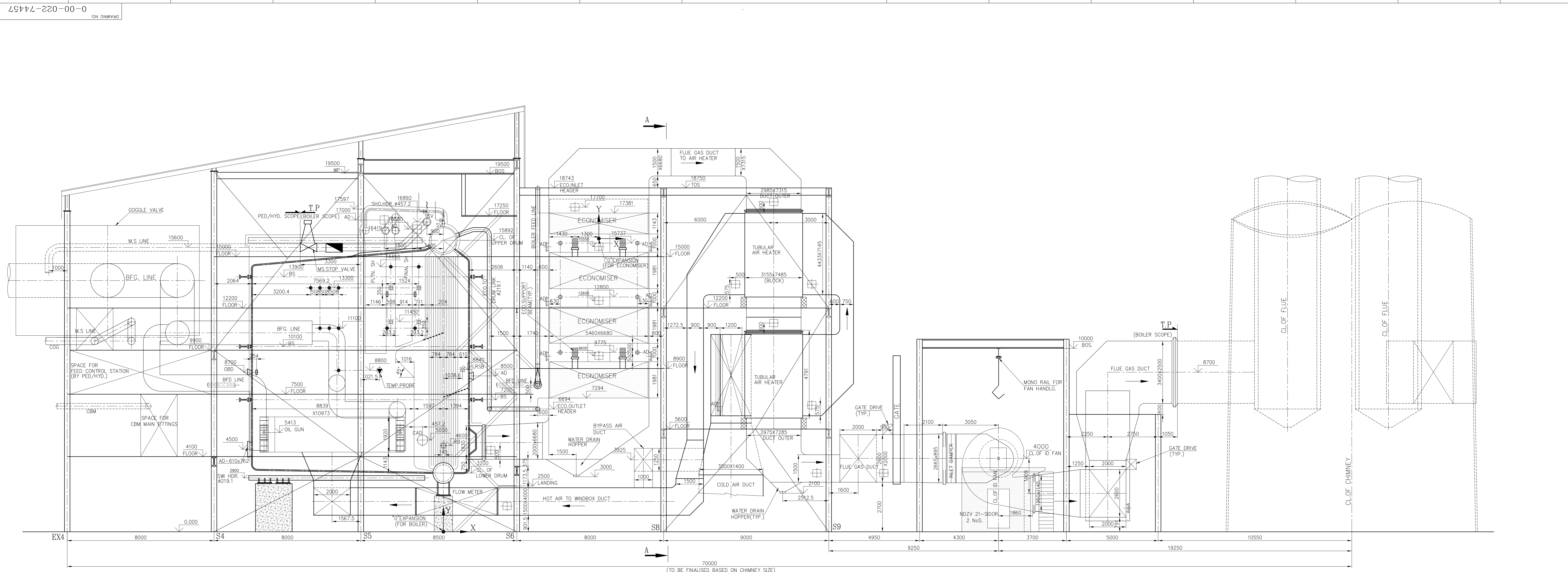
**BHEL CLARIFICATION ( ANNEXURE-I )**

**JOB: ERECTION, TESTING & COMMISSIONING OF 3X200 TPH GAS FIRED BOILER WITH  
AUXILLIARIES AND PIPINGS AT 3X18 MW POWER & BLOWING STATION, IISCO  
STEEL PLANT AT BURNPUR, WEST BENGAL**

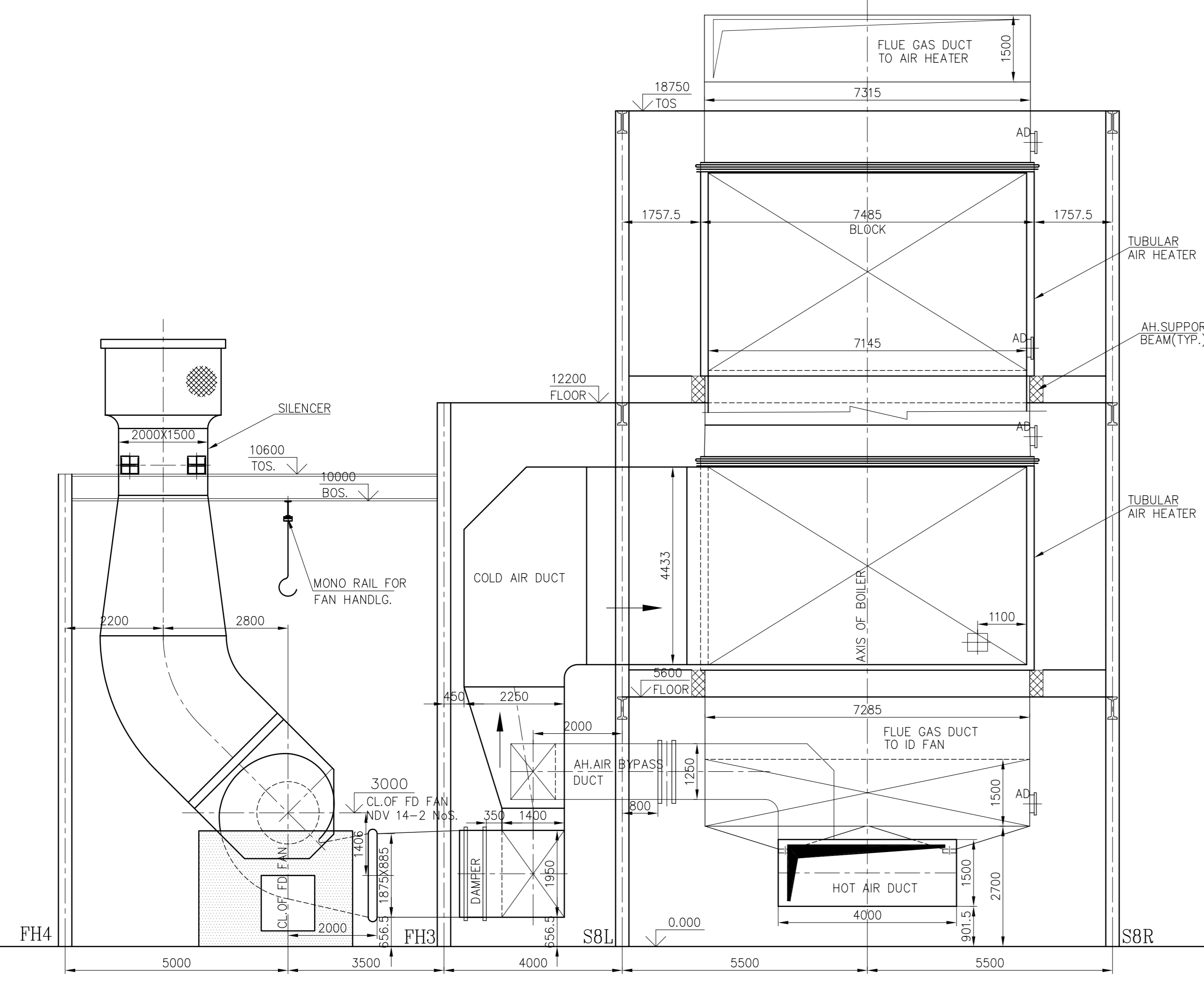
**TENDER DOCUMENT NO : PSER:SCT:IIS-B1007:09**

| <b>SL.</b> | <b>Reference clause of Tender document</b> | <b>Existing provision</b>   | <b>Bidder's Query</b>  | <b>BHEL's clarification</b>   |
|------------|--|---|--|---|
| 1.0        | Clause No. 43.3-SCC                        |   | According to schedule of milestone activities , Boiler erection to be completed in 17 months from may 2009 to Sept. 2010 . Where as in clause no. 43.5 completion period of each boiler is indicated as 16 months  | Contract completion period shall be 17 months for each boiler.  |
| 2.0        | Clause No. 47.4.1-SCC                      | For group –II of weight schedule for Pr parts, rate indicated in tender is Rs. 6000/- per MT. | Whether this rate is additional to the agreed rate for the schedule contract period and the inch dia rate for HP weld joint as per clause no. 45.1. Is it over and above agreed rate for the schedule contract period + Rs 6000/- per MT Inch dia rate (Rate for quantity variation for Pr part = Agred rate for scheduled contract period + Rs 6000/- per MT + inch dia rate). Please confirm | No this is not over and above the agreed rate. As per tender additional tonnage of pr. parts beyond variation limit shall be payable at this rate and Additional joint involved therein shall be paid as per relevant clause for extra work of HP joints. |

|     |                       |  |  |  |
|-----|-----------------------|--|--|--|
| 3.0 | Clause No. 47.4.2-SCC | For group –III of weight schedule for piping , rate indicated in tender is Rs. 11000/- per MT.           | Whether this rate is additional to the agreed rate for the schedule contract period (Rate for quantity variation for piping = Agreed rate for scheduled contract period + Rs 11000/- per MT). Please confirm | No this is not over and above the agreed rate. Wt of piping beyond variation limit shall be paid @Rs 11000/MT as per tender. |
| 4.0 | Clause No. 43.4-SCC   | The contractor should mobilize & start the erection work within 7 days to from the date of issue of LOI. | Bidder will require minimum 15 days to mobilize and start the erection work from the date of issue of LOI.   | Mobilization period of 15 days agreed.   |
| 5.0 | Clause No.5-SCC       |  | Please inform us elevation of Boiler Drum Lifting  | G.A drg attached   |



SECTIONAL SIDE ELEVATION



SECTION-AA

**LEGEND :-**

|  |      |  |
|--|------|--|
|  | LRSB | LONG RETRACTABLE SOOT BLOWER                                       |
|  | IN   | INSTRUMENT INSERT  |
|  | RB   | ROTARY BLOWER  |
|  | AD   | ACCESS DOOR<br>450(W)x400(H)-IN PR.PARTS<br>450(W)x450(H)-IN DUCTS |
|  | OBD  | OBSERVATION DOOR<br>100(W)x250(H)-IN PR.PARTS                      |
|  | TP   | TERMINAL POINT UNDER BOILER SCOPE                                  |
|  | CAD  | CIRCULAR ACCESS DOOR   |
|  | BS   | BUCKSTAY   |
|  | SV   | SAFETY VALVE   |
|  | R.S. | RIGHT SIDE ONLY  |
|  | L.S. | LEFT SIDE ONLY   |

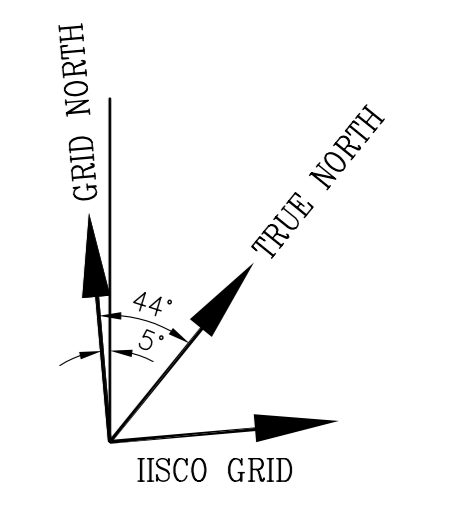
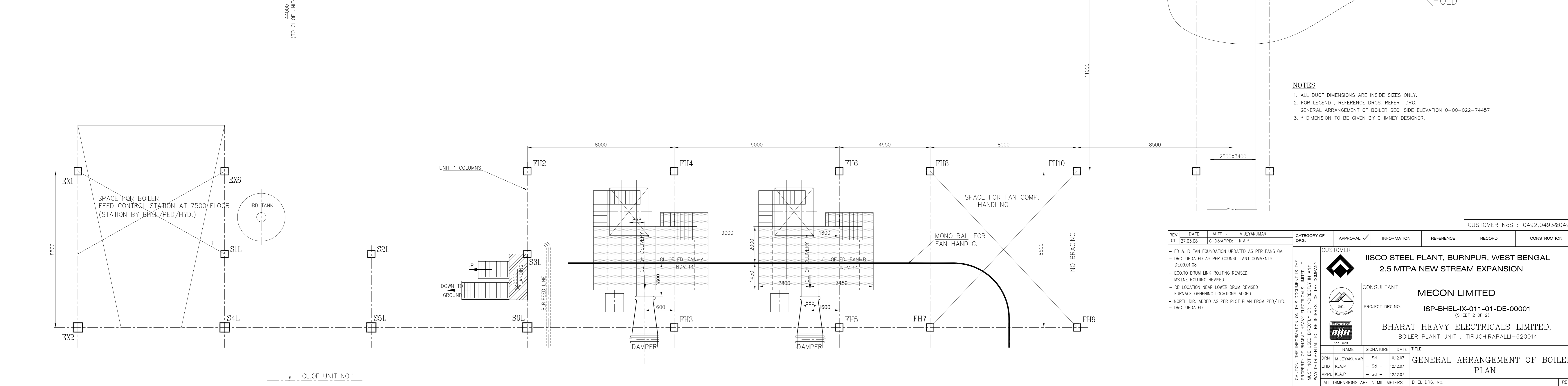
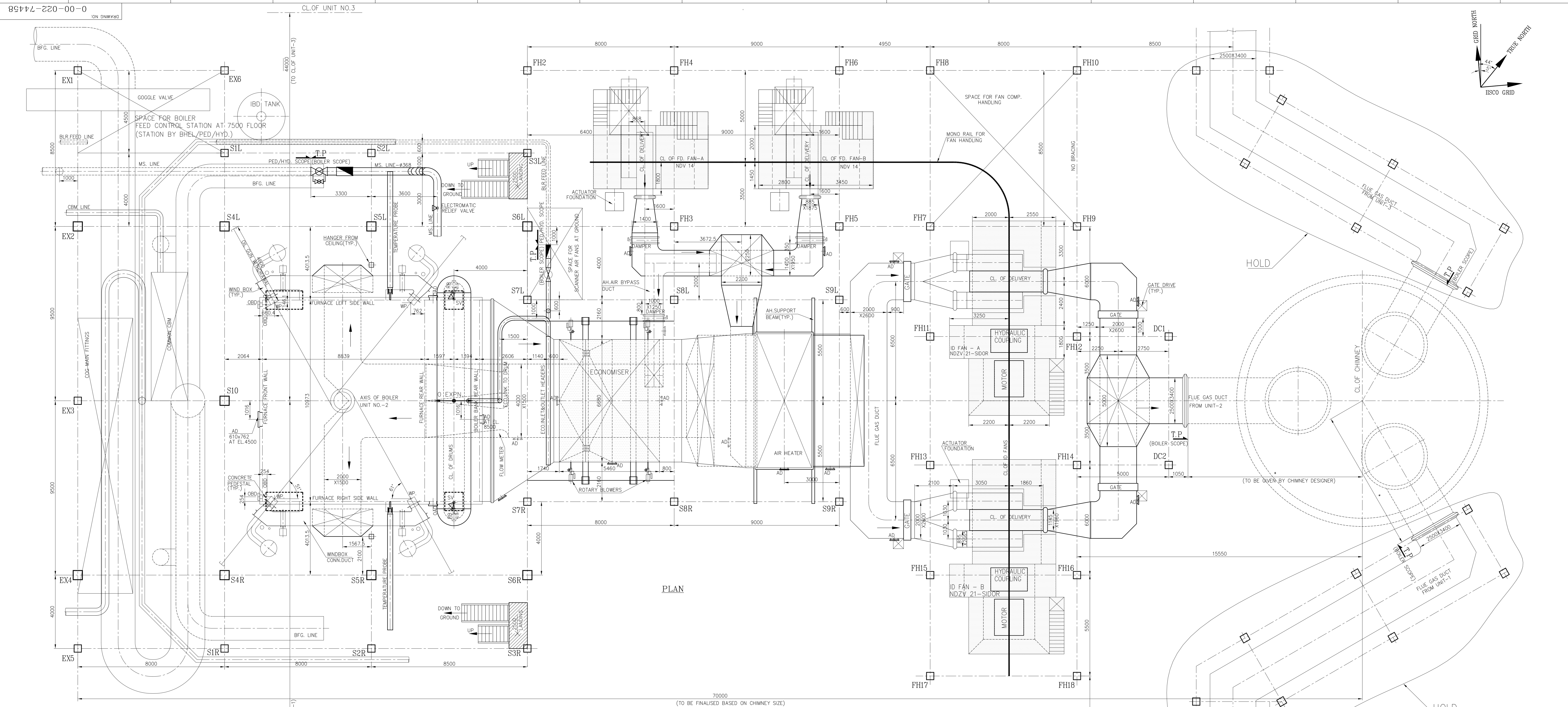
- NOTES :-**
- ALL DUCT DIMENSIONS ARE INSIDE SIZES ONLY
  - ALL INNER RADII OF DUCT BENDS 300 MM ONLY.
  - ALL FURNACE OPENINGS SHOWN ON SIDE WATER WALL ARE ON LEFT & RIGHT SIDES UNLESS OTHERWISE SPECIFIED.
  - FINISHED FLOOR LEVEL OF TG/TB/BOILER IS EL.100.0m WHICH CORRESPONDS TO FGL 130.00 (REF.- PED/HYD.DRG. PLOT PLAN - 0-381-01-00872/02)

**DESCRIPTION OF THE UNIT**  
 THREE NUMBERS OF STEAM GENERATORS, SEMI-OUTDOOR TYPE, NATURAL CIRCULATION ,  
 BALANCED DRAFT FURNACE , BI-DRUM , VERTICAL BANK TUBE ARRANGEMENT ,  
 BOTTOM SUPPORTED , DESIGNED FOR TANGENTIAL FIRING WITH BFG,COG,CBM&LDO FUELS.

- BOILER PARAMETERS**
- STEAM FLOW AT SUPERHEATER OUTLET --- 200 T/Hr
  - PRESSURE AT SUPERHEATER OUTLET --- 65 Kg/cm<sup>2</sup>(g)
  - TEMPERATURE AT SUPERHEATER OUTLET --- 490° C
  - FEED WATER TEMPERATURE --- 208° C

- REFERENCE DRAWINGS**
- GENERAL ARRANGEMENT OF BOILER PLAN --- 0-00-022-74458
  - FLOOR PLAN AT EL.4100 --- 1-00-021-71052
  - FLOOR PLAN AT EL.7500 --- 1-00-021-71053
  - FLOOR PLAN AT EL.9900 --- 1-00-021-71054
  - FLOOR PLAN AT EL.12200 --- 1-00-021-71055
  - FLOOR PLAN AT EL.15000&17250 --- 1-00-021-71056
  - TERMINAL POINT DETAILS FOR FEED WATER & MS PIPING --- 1-00-020-71057
  - KEY PLAN OF BOILERS --- 0-00-020-74459

|   |            |          |            |  |          |             |           |        |              |                               |
|---|------------|----------|------------|--|----------|-------------|-----------|--------|--------------|-------------------------------|
| REV   | DATE       | ALD      | M.EYAKUMAR | CATEGORY OF DRG.   | APPROVAL | INFORMATION | REFERENCE | RECORD | CONSTRUCTION | CUSTOMER NoS : 0492,0493&0494 |
| 01  | 27.03.08   | CHD&APPD | K.A.P.     |  |          |             |           |        |              |                               |
| <p>CAUTION: THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.</p> |            |          |            |  |          |             |           |        |              |                               |
| CUSTOMER  |            |          |            | <p><b>IISCO STEEL PLANT, BURNPUR, WEST BENGAL</b><br/> <b>2.5 MTPA NEW STREAM EXPANSION</b></p>        |          |             |           |        |              |                               |
| CONSULTANT  |            |          |            | <p><b>MECON LIMITED</b></p>  |          |             |           |        |              |                               |
| PROJECT DRG. NO.  |            |          |            | <p><b>ISP-BHEL-IX-01-01-DE-00001</b><br/>         (SHEET 1 OF 2)</p>                                   |          |             |           |        |              |                               |
| CUSTOMER  |            |          |            | <p><b>BHARAT HEAVY ELECTRICALS LIMITED,</b><br/>         BOILER PLANT UNIT : TIRUCHIRAPALLI-620014</p> |          |             |           |        |              |                               |
| DRN   | M.EYAKUMAR | Sd       | 10.12.07   | GENERAL ARRANGEMENT OF BOILER  |          |             |           |        |              |                               |
| CHD   | K.A.P.     | Sd       | 12.12.07   | SECTIONAL SIDE ELEVATION   |          |             |           |        |              |                               |
| APPD  | K.A.P.     | Sd       | 12.12.07   | REV 01   |          |             |           |        |              |                               |
| ALL DIMENSIONS ARE IN MILLIMETERS   |            |          |            | BHEL DRG. No.  |          |             |           |        |              |                               |
| SCALE   |            |          |            | 0-00-022-74457   |          |             |           |        |              |                               |



- NOTES**
1. ALL DUCT DIMENSIONS ARE INSIDE SIZES ONLY.
  2. FOR LEGEND, REFERENCE DRGS, REFER DRG. GENERAL ARRANGEMENT OF BOILER SEC. SIDE ELEVATION 0-00-022-74457
  3. DIMENSION TO BE GIVEN BY CHIMNEY DESIGNER.

|   |               |                 |                    |                  |                                    |             |           |        |              |
|---|---------------|-----------------|--------------------|------------------|------------------------------------|-------------|-----------|--------|--------------|
| REV. 01   | DATE 27.03.08 | ALTD. CHD&APPD. | M.JEYAKUMAR K.A.P. | CATEGORY OF DRG. | APPROVAL                           | INFORMATION | REFERENCE | RECORD | CONSTRUCTION |
| CUSTOMER NoS : 0492,0493&0494   |               |                 |                    |                  |                                    |             |           |        |              |
| <b>CUSTOMER</b><br><b>IISCO STEEL PLANT, BURNPUR, WEST BENGAL</b><br><b>2.5 MTPA NEW STREAM EXPANSION</b>         |               |                 |                    |                  |                                    |             |           |        |              |
| <b>CONSULTANT</b><br><b>MECON LIMITED</b><br>PROJECT DRG. NO. <b>ISP-BHEL-IX-01-01-DE-00001</b><br>(SHEET 2 OF 2) |               |                 |                    |                  |                                    |             |           |        |              |
| <b>CLIENT</b><br><b>BHARAT HEAVY ELECTRICALS LIMITED,</b><br>BOILER PLANT UNIT ; TIRUCHIRAPALLI-620014            |               |                 |                    |                  |                                    |             |           |        |              |
| DRN   | M.JEYAKUMAR   | -               | Sd -               | 10.12.07         | TITLE                              |             |           |        |              |
| CHD   | K.A.P.        | -               | Sd -               | 12.12.07         | GENERAL ARRANGEMENT OF BOILER PLAN |             |           |        |              |
| APPD  | K.A.P.        | -               | Sd -               | 12.12.07         | BHEL DRG. No.                      |             |           |        |              |
| ALL DIMENSIONS ARE IN MILLIMETERS   |               |                 |                    |                  |                                    |             |           |        |              |
| SCALE: 1 : 75   |               |                 |                    |                  |                                    |             |           |        |              |
| 0-00-022-74458  |               |                 |                    |                  |                                    |             |           |        |              |
| REV 01  |               |                 |                    |                  |                                    |             |           |        |              |