

5640064659C

DRG. NO.

4 OF 1 SHE

CPP CONTROL SYSTEM CONFIGURATION AND SYSTEM ARCHITECTURE DRAWING

PROJECT : CAPTIVE POWER PLANT, GURU GOVIND SINGH
REFINERY, BHATINDA.

PRODUCT : max BASED HMI SYSTEM

CUSTOMER : M/s HPCL- MITTAL ENERGY LTD.

CONSULTANT : M/s ENGINEERS INDIA LTD.

WBS NO : CE/0543-SH1-56-01

Code-1 - with minor remarks
18/11/09

GENERAL DIMENSIONAL LIMITS, FITS & TOLERANCES AS PER HYG230251

INVENTORY NO

SIGN. AND DATE

REF. DRG. NO.

COMPUTER FILE NAME

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REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED
1			2			3			4			5			6		
ZONE			ZONE			ZONE			ZONE			ZONE			ZONE		

REVISED BASED ON
EIL REF No.6922/1-04/07-08/MCI/26/106
AND MOM DATED 25.02.08/2009 AT EIMREVISED TO INCORPORATE CUSTOMER
COMMENTS

BHARAT HEAVY ELECTRICALS LTD.

ELECTRONICS DIVISION, BHATINDA

PROJECT: CAPTIVE POWER PLANT,
GURU GOBIND SINGH REFINERY PROJECT, BHATINDA

CONSULTANT :



ENGINEERS INDIA LTD

1, BHIKAJI CAMA PLACE, NEWDELHI - 110 006

EIL JOB NO.: 6922

CUSTOMER: HPCL-MITTAL ENERGY LIMITED

DEPT.	UNIT	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM NO.	NO. OF
HMI	CR.					
CODE	q/m/y					
404						
TITLE:	TITLE SHEET					
CARD						
CODE						
NA						
DRAWING NO.						
3659490049502						
REV.						

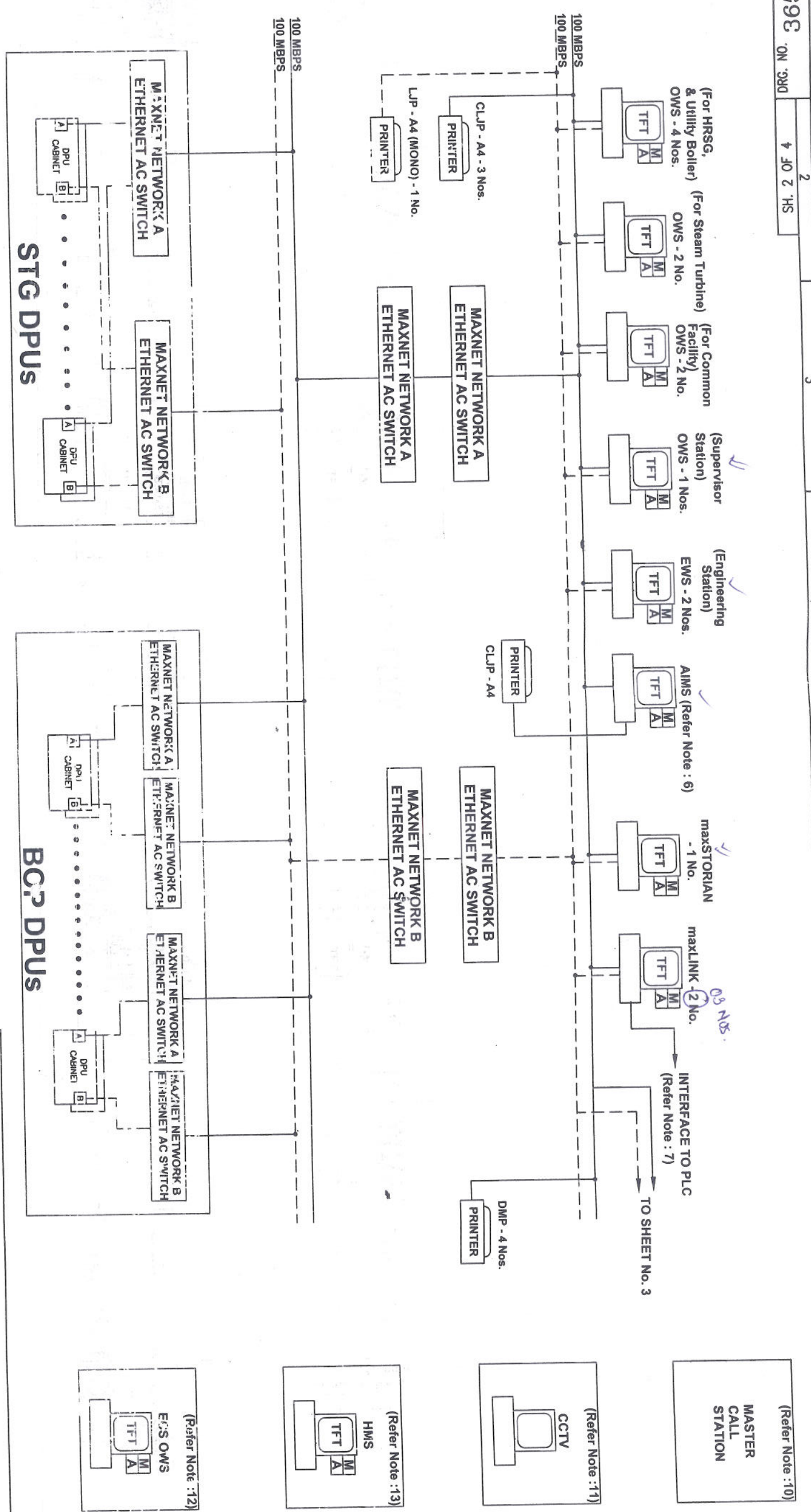
FIRST ANGLE PROJECTION

56490049503
ON DRG. 4 JO 2 HS

(ALL DIMENSIONS ARE IN mm)

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GENERAL DIMENSIONAL LIMITS, FITS & TOLERANCES AS PER IS: 70230261



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

REV.	DATE	ALTERED	CHD/APPD	REV.	DATE	ALTERED	CHD/APPD	REV.	DATE	ALTERED	CHD/APPD	REV.	DATE	ALTERED	CHD/APPD
1				2				3				4			
5				6				7				8			

REVISIONS:

REV.	DATE	ALTERED	CHD/APPD	REASON
01	08.05.2008			REVISIONS BASED ON COMMENTS
02	10.09.2008			EL. REF. No. 8822/1-04/07-08/MC/26/106 AND MOD. INTRD-2826/08/2008 AT EDH

CUSTOMER: HPCL-MITTAL ENERGY LIMITED

CONSULTANT: ENGINEERS INDIA LTD
1, BHIKAJI CAMA PLACE, NEWDELHI - 110 006
TEL JOB NO.: 6922

PROJECT: CAPTIVE POWER PLANT;
GURU GOBIND SINGH REFINERY PROJECT, BHATINDA

DEPT. HMI UNTO. DIMS. SCALE WEIGHT (KG) REF. TO ASSY. DRG. ITEM NO. NO. OF ITEMS

TITLE: CPP Control System Configuration & System Architecture Drawing

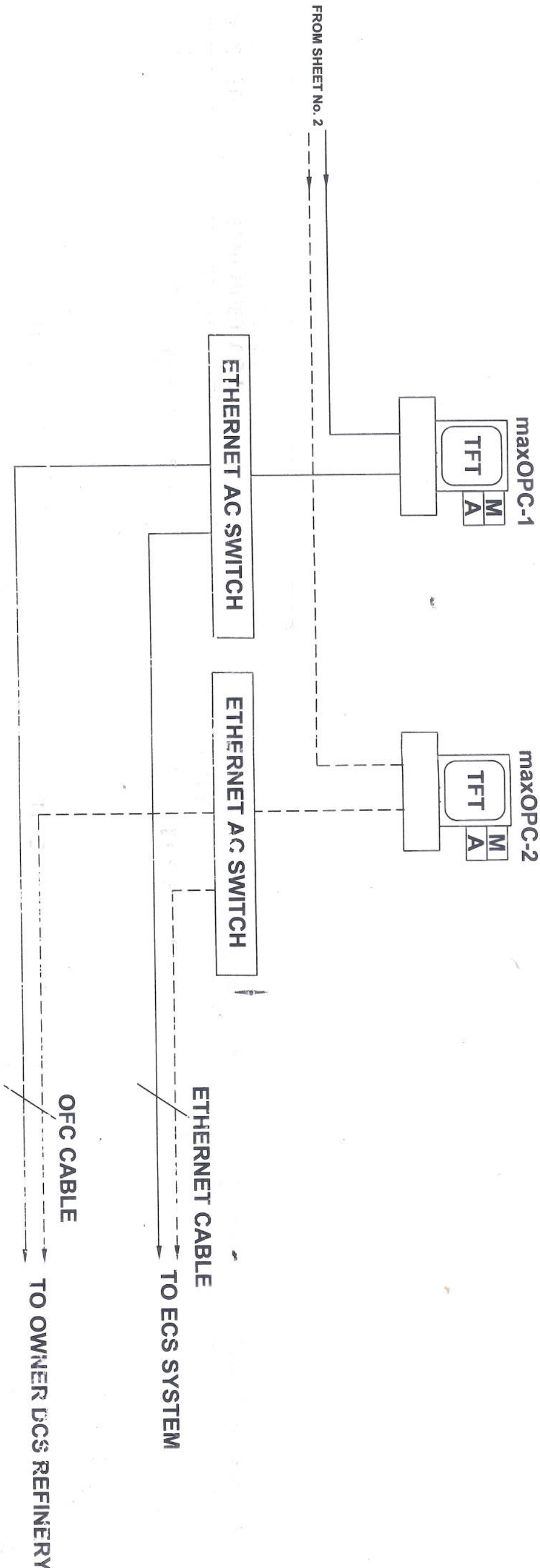
DRAWING NO. 3659490049502

REV. NO. OF SFT. 4

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

5640064659C DRG. NO. 4 OF 3 SH.



GENERAL DIMENSIONAL LIMITS, FITS & TOLERANCES AS PER HY023C261

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

REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED
ZONE		CHD/APPD	ZONE		CHD/APPD	ZONE		CHD/APPD	ZONE		CHD/APPD	ZONE		CHD/APPD	ZONE		CHD/APPD

EL. REF. No. 6922/7-04/07-06/MC/26/106
AND NOW DATED 25/06/2008 AT EDN

REVISED TO INCORPORATE CUSTOMER COMMENTS



PROJECT: CAPTIVE POWER PLANT,
GURU GOBIND SINGH REFINERY PROJECT, BHATINDA



CONSULTANT: ENGINEERS INDIA LTD
1, BHIKAJI CAMA PLACE, NEWDELHI - 110 006
EIL JOB NO.: 6922

DEPT.	UNIT/GR.	DIMS.	SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM NO.	NO. OF ITEMS
H/M	q/m/y						
404							

TITLE: CPP Control System
Configuration & System
Architecture Drawing

DRAWING NO. 3659490049502

REV. 02

SH. 4 OF 4	DRG. NO. 36594900495
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(ALL DIMENSIONS ARE IN mm)

LEGEND:

OWS - OPERATOR WORK STATION.
EWS - ENGINEERING WORK STATION.
AIMS - ALARM INFORMATION MANAGEMENT SYSTEM
DPU - DISTRIBUTED PROCESSING UNIT.
DMP - DOT MATRIX PRINTER.
LJP - LASERJET PRINTER
CLJP - COLOUR LASERJET PRINTER.
HMS - HART MANAGEMENT SYSTEM
ECS - ELECTRICAL CONTROL SYSTEM
OFC - OPTICAL FIBER CABLE.
DCS - DISTRIBUTED CONTROL SYSTEM.
MI - MOUSE (M)
A - ASCII KEYBOARD

NOTES :-

- 1) ALL NETWORK CONNECTIONS ARE THROUGH UTP CONNECTIONS AT THE SPEED OF 100 MBPS.
 - 2) NETWORK LINE-A & LINE-B ARE REDUNDANT TO EACH OTHER.
 - 3) DPU DETAILS DO NOT FORM PART OF HMI SYSTEM CONFIGURATION DIAGRAM. FOR DPU DETAILS REFER PARTITIONING DIAGRAM DOCUMENT NUMBER 415/GGSR/011.
 - 4) HMI CONFIGURATION DIAGRAM WILL SHOW DETAILS OF HMI EQUIPMENTS ONLY.
- DCS CONFIGURATION DETAILS ARE A SEPARATE DOCUMENT.

- 5) EXACT PLACEMENT SHALL FORM PART OF CONTROL ROOM LAYOUT DESIGN AND SHALL NOT FORM PART OF CONFIGURATION DIAGRAM OF THE HMI SYSTEM.
- 6) AIMS SYSTEM WILL BE CONNECTED THROUGH ETHERNET OR PARALLEL PORT DEPENDING UPON THE MODEL OF AIMS SYSTEM.
- 7) maxLINK STATION IS INTERFACED WITH FOLLOWING SYSTEM:-

- a) UTILITY BOILER BMS PLC-4No'S
- b) HRSG BMS PLC-2No'S
- c) MAFK-VI-2No'S
- d) GT VIBRATION MONITORING SYSTEM(VMS) - 2No'S
- e) STG VIBRATION MONITORING SYSTEM(VMS) - 1No.
- f) FIRE & GAS DETECTION PLC - 1No.

individual console configuration diagram for the submitted for each system.

- ALL THE ABOVE INTERFACE ON MODBUS RS485 TWISTED PAIR CABLE.
RS485 TWISTED PAIR CABLE UNDER BHEL - HYDRABAD SCOPE OF SUPPLY.
8) INTERFACE TO ECS THROUGH maxOPC ETHERNET(RJ45) CONNECTIVITY.
9) OFC CABLE SUPPLY, LAYING & TERMINATION FROM maxOPC ETHERNET SWITCHES TO
OWNER DCS REFINERY UNDER OWNER SCOPE.
10) MASTER CALL STATION UNDER OWNER SCOPE.
11) CCTV UNDER BHEL-HYDRABAD SCOPE.
12) ECS-OWS UNDER BHEL-HYDRABAD SCOPE.
13) HMS IS INDEPENDENT SYSTEM, IT WILL NOT BE CONNECTED TO maxNET.

[illegible]

REV.	DATE	ALTERED	G.A.
01	06.05.2008	CHD/APPO	R.T.S

ZONE

REVISED TO INCORPORATE CUSTOMER COMMENTS

HMI	UNITED STATES GR.			DRAWING NO.	REV.
CODE 404	9/1/71			CARD CODE	NA
TITLE: CPP Control System Configuration & System				36594900495	02

 BHARAT HEAVY ELECTRICALS LTD. ELECTRONICS DIVISION, JALPAIGURI							
NAME		SIGN.		DATE		NO OF VAR.	
DRN.		VMI		Sd / -		25.07.08	
CHD.		SSR		Sd / -		25.07.08	
AKS		Sd / -					
APPD.							
DEPT.	LABOR	OWNS	SCALE	WEIGHT (KG)	ITEM NO.	NO OF ITEMS	

PROJECT: CAPTIVE POWER PLANT;
GURU GOBIND SINGH REFINERY PROJECT; BHATINDA

CONSULTANT : **ENGINEERS INDIA LTD**
1, BHIKAI CAMA PLACE, NEWDELHI - 110 006
TEL-JOB NO.-: 6922

CUSTOMER: HPCL-MITTAL ENERGY LIMITED

[illegible]

St. Louis

Diagnosis

OF

Figure 2

6		7		8
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(ALL DIMENSIONS ARE IN mm)