

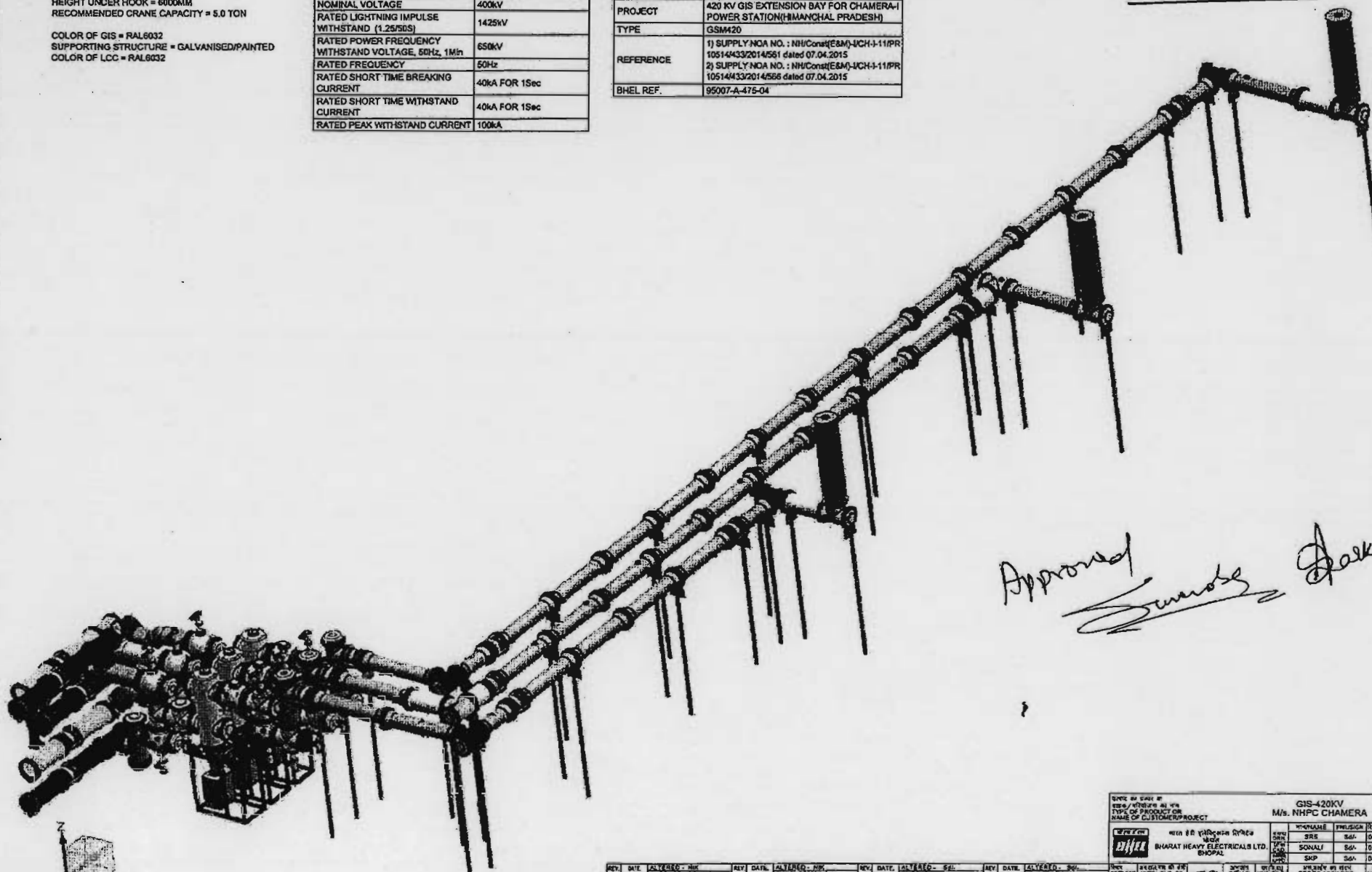
HEIGHT UNDER HOOK = 6000MM
RECOMMENDED CRANE CAPACITY = 5.0 TON

COLOR OF GIS = RAL6032
SUPPORTING STRUCTURE = GALVANISED/PAINTED
COLOR OF LCC = RAL6032

MAIN TECHNICAL DATA	
RATED VOLTAGE	420kV
NOMINAL VOLTAGE	400kV
RATED LIGHTNING IMPULSE WITHSTAND (1.2/50S)	1425kV
RATED POWER FREQUENCY WITHSTAND VOLTAGE, 50Hz, 1min	650kV
RATED FREQUENCY	50Hz
RATED SHORT TIME BREAKING CURRENT	40kA FOR 1Sec
RATED SHORT TIME WITHSTAND CURRENT	40kA FOR 1Sec
RATED PEAK WITHSTAND CURRENT	100kA

NAME OF CUSTOMER	M/s. NHPC LIMITED
PROJECT	420 KV GIS EXTENSION BAY FOR CHAMERA-I POWER STATION (PUNJAB)
TYPE	GSM420
REFERENCE	1) SUPPLY NOA NO. : NH/Const/ESM-UCH-11/1PR/105/14/4332014/5681 dated 07.04.2015 2) SUPPLY NOA NO. : NH/Const/ESM-UCH-11/1PR/105/14/4332014/5686 dated 07.04.2015
BHEL REF	95007-A-475-04

Annexure A



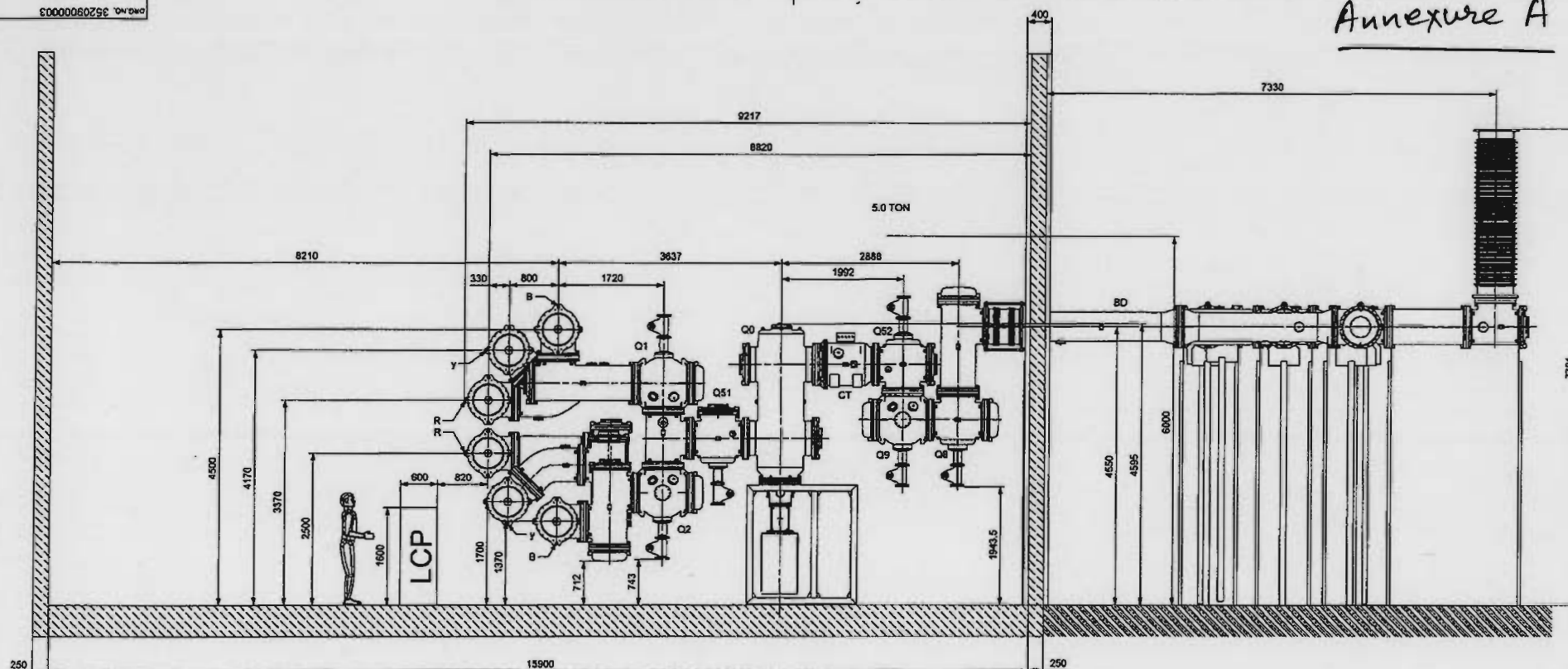
Approved Samuel Parker

REV. #	DATE	BY	REVISION	REV. #	DATE	BY	REVISION	REV. #	DATE	BY	REVISION
1	06/10/11	ALVARADO - RMY	CHECKED - SONALI APPRO - SSP	2	06/10/11	ALVARADO - RMY	CHECKED - SONALI APPRO - SSP	3	06/10/11	ALVARADO - RMY	CHECKED - SONALI APPRO - SSP
ZONE	DRAWING REVISED AS PER CUSTOMER COMMENTS			ZONE	DRAWING REVISED AS PER CUSTOMER COMMENTS			ZONE	DRAWING REVISED AS PER CUSTOMER COMMENTS		
ZONE	DRAWING REVISED AS PER CUSTOMER COMMENTS			ZONE	DRAWING REVISED AS PER CUSTOMER COMMENTS			ZONE	DRAWING REVISED AS PER CUSTOMER COMMENTS		

[illegible]

OGA DRAWING FOR GIS-400K

Annexure A

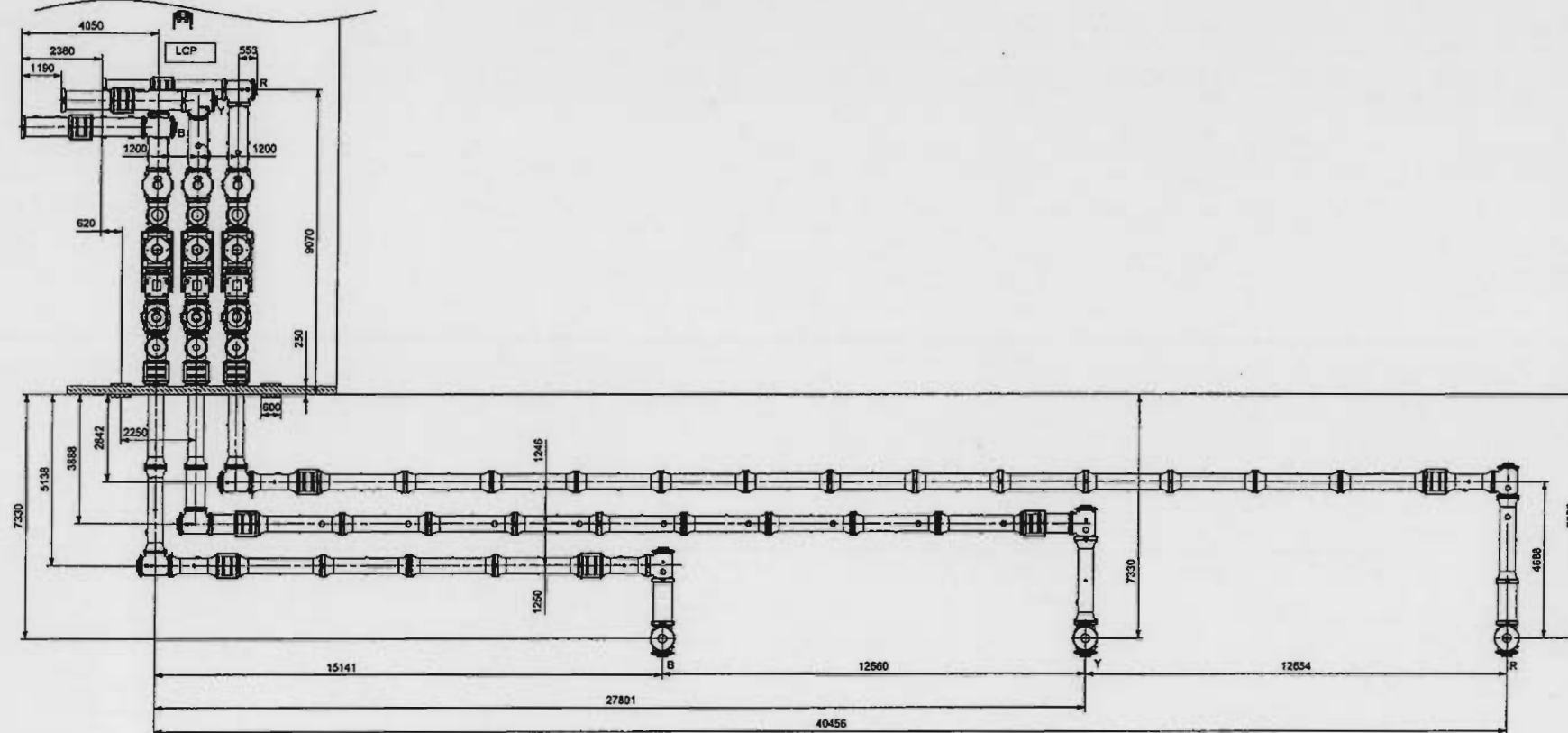


Approved Sandy Darker

NOTE:
THIS DRAWING IS MADE FOR GENERAL ARRANGEMENT OF EQUIPMENTS.
ACTUAL DIMENSIONS MAY VARY DEPENDING UPON DESIGN/SITE REQUIREMENT.

[illegible]

DRG. NO. 3520900003

Annexure A

Approved *Sunanda*

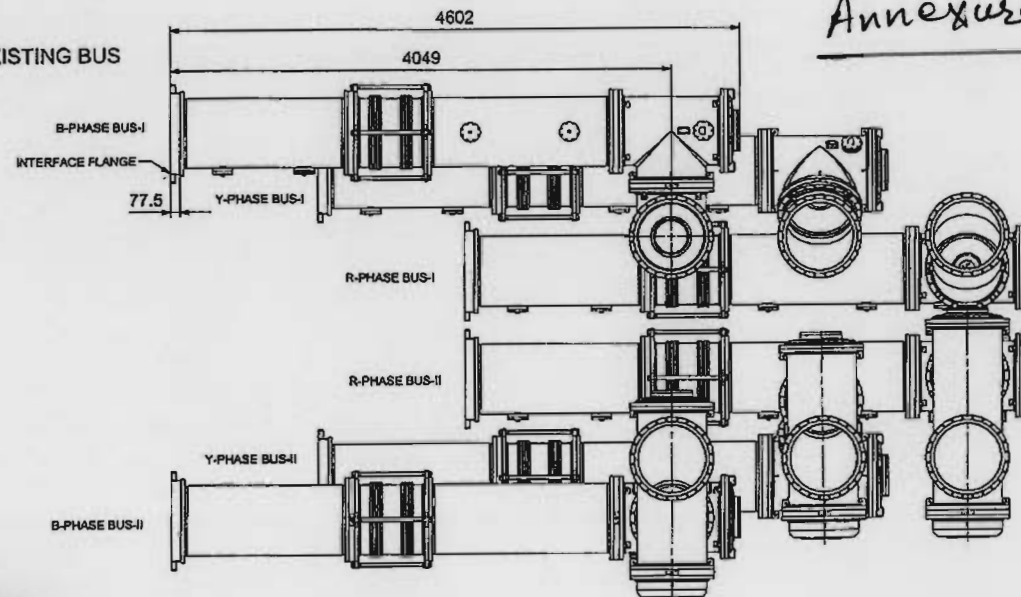
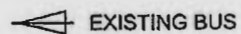
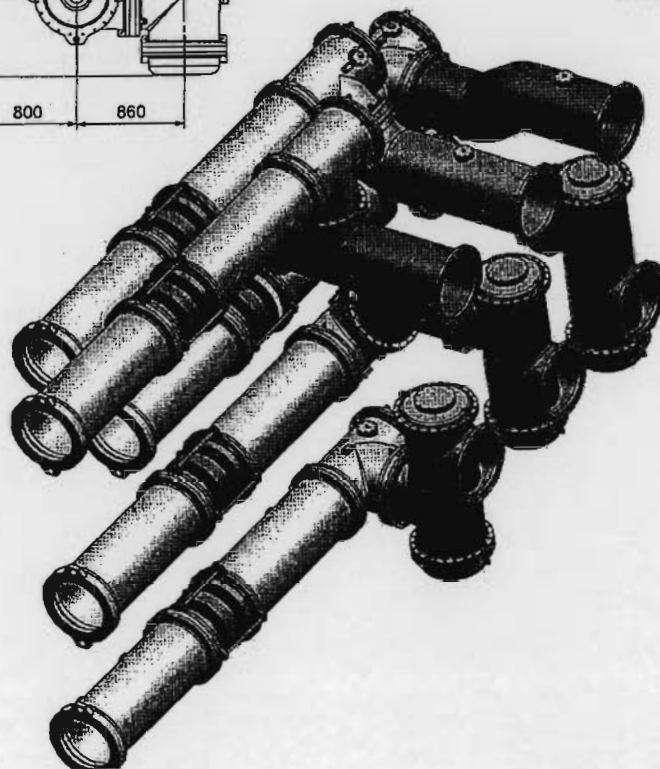
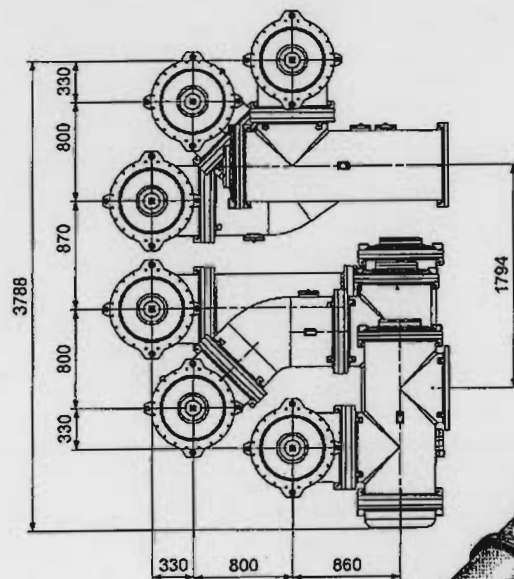
Darker

NOTE:
THIS DRAWING IS MADE FOR GENERAL ARRANGEMENT OF EQUIPMENTS.
ACTUAL DIMENSIONS MAY VARY DEPENDING UPON DESIGN/SITE REQUIREMENT.

REV.	DATE	ALTERED BY	CHKD BY	REV.	DATE	ALTERED BY	CHKD BY	REV.	DATE	ALTERED BY	CHKD BY	REV.	DATE	ALTERED BY	CHKD BY
01	07.01.2018	CHANDRA	SONALI	02	08.01.18	CHANDRA	SONALI	03	08.02.18	CHANDRA	SONALI	04	12.04.18	CHANDRA	SONALI
DRAWING REVISED AS PER CUSTOMER COMMENTS				DRAWING REVISED AS PER CUSTOMER COMMENTS				1. DRAWING REVISED WITH PROPOSED CHANGES. 2. SHEET 4 ADDED.				DRAWING REVISED AS PER CUSTOMER COMMENTS			

DRAWN BY: CHANDRA CHECKED BY: SONALI TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: GIS-420KV M/S. NHPC CHAMERA		DESIGNED BY: CHANDRA CHECKED BY: SONALI TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: GIS-420KV M/S. NHPC CHAMERA	
DRAWING NO: 3520900003 SHEET NO: 04		DRAWING NO: 3520900003 SHEET NO: 04	

Annexure A



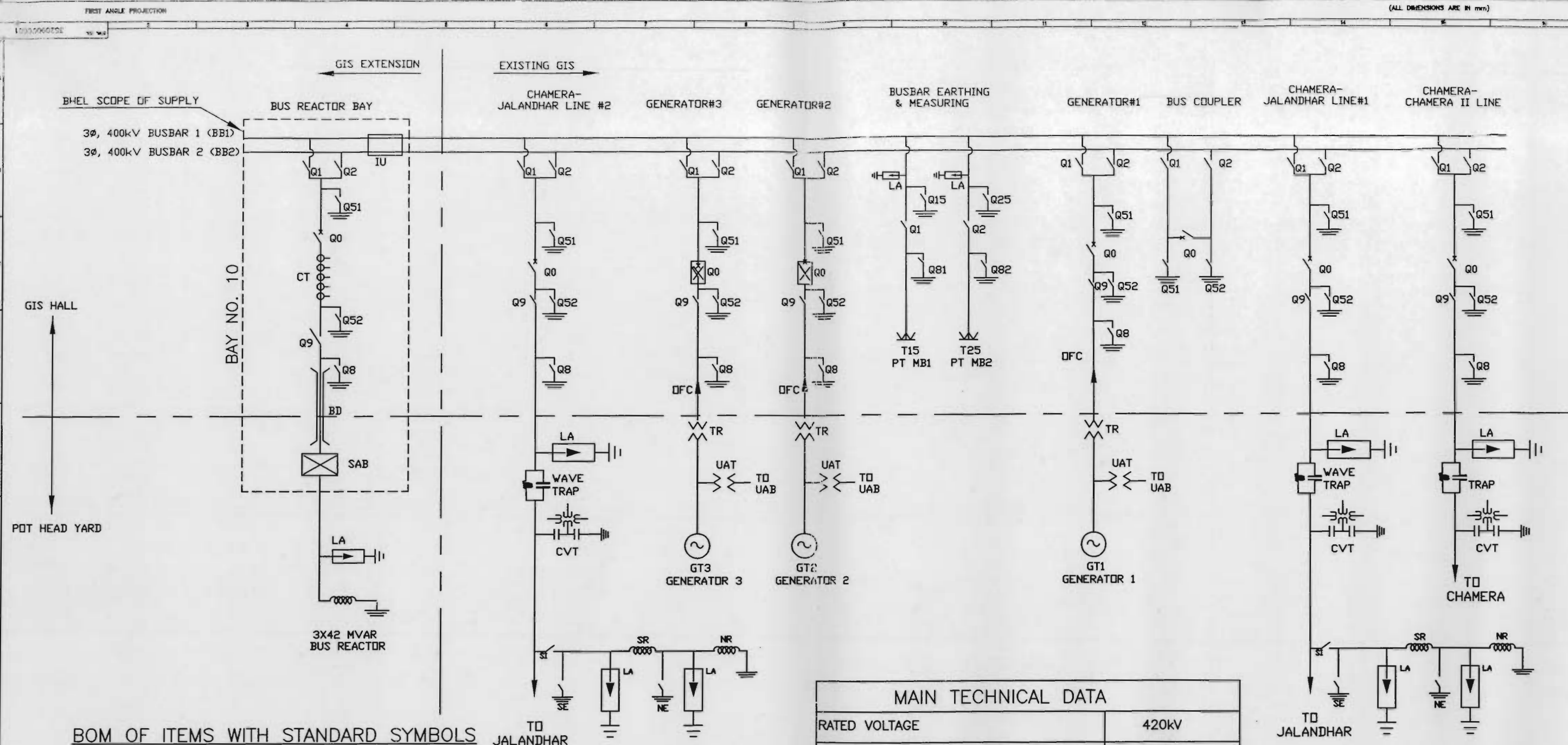
Approval _____
Sundby _____
Derkor _____

NOTE:
THIS DRAWING IS MADE FOR GENERAL ARRANGEMENT OF EQUIPMENTS.
ACTUAL DIVENSIONS MAY VARY DEPENDING UPON DESIGN/SITE REQUIREMENT.

ADDITIONAL INFORMATION STATUS OF DRAWINGS DISTRIBUTION OF DRAWINGS SHEW SHEW TCX		SHEET NO. 10 OF 11 TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT M/s. NHPD CHAMARA WITH 18 POWER POLES BRS BOP 04.05.15 BOPALI BOP 04.05.15 SHP SHP 04.05.15	
REV. DATE. 01.10.15 01.10.15 01.10.15	ALIGNED CHECKED APP'D 01.10.15 01.10.15 01.10.15	REV. DATE. 01.10.15 01.10.15 01.10.15	ALIGNED CHECKED APP'D 01.10.15 01.10.15 01.10.15
1. DRAWING REVISED WITH PROPOSED CHANGES. 2. SHEET 4 ADDED		1. DRAWING NO. 3520500003 2. 3.50T NHPD 18 POLES	

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IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTERESTS OF THE COMPANY

ON CARD FILE	:		: INVENTORY NO.
	:	DNY REGIS	:



BOM OF ITEMS WITH STANDARD SYMBOLS

DEVICE	SYMBOL	DESCRIPTION	TYPE	RATING	QTY.
Q1, Q2, Q9		DISCONNECTOR	GSM420_DS	3150A, 40kA	3
Q0		SF6 CIRCUIT BREAKER	GSM420_CB	3150A, 40kA	1
CT		CURRENT TRANSFORMER 5 CORE	GSM420_CT	CORE1&2:1500-750-375/1 CORE3,4&5:200/1	1
BD		SF6 GAS BUS DUCT	GSM420_BD	3150A, 40kA	1
Q8		FAST ACTING EARTHING SWITCH	GSM420_FES	3150A, 40kA	1
SAB		SF6 TO AIR BUSHING	GSM420_SAB	2500A, 40kA*	1
Q51, Q52		MAINTENANCE EARTH SWITCH	GSM420_MES	3150A, 40kA	2
IU		INTERFACE UNIT	GSM420_IU	3150A, 40kA	1

*SUITABLE FOR 3150A

MAIN TECHNICAL DATA

RATED VOLTAGE	420kV
NOMINAL VOLTAGE	400kV
RATED LIGHTNING IMPULSE WITHSTAND (1.25/50μs)	1425kV
RATED POWER FREQUENCY WITHSTAND VOLTAGE, 50Hz, 1Min	650kV
RATED FREQUENCY	50Hz
RATED SHORT CIRCUIT BREAKING CURRENT	40kA FOR 1Sec
RATED SHORT TIME WITHSTAND CURRENT	40kA FOR 1Sec
RATED PEAK WITHSTAND CURRENT	100kAp
RATED DURATION OF SHORT CIRCUIT	1sec.
RATED BUSBAR CURRENT @ AMBIENT TEMPERATURE OF 40°C	3150A
RATED FEEDER CURRENT @ AMBIENT TEMPERATURE OF 40°C	3150A
AMBIENT OPERATING RANGE TEMPERATURE OF 40°C	FROM -5°C TO 40°C

Approved

DS

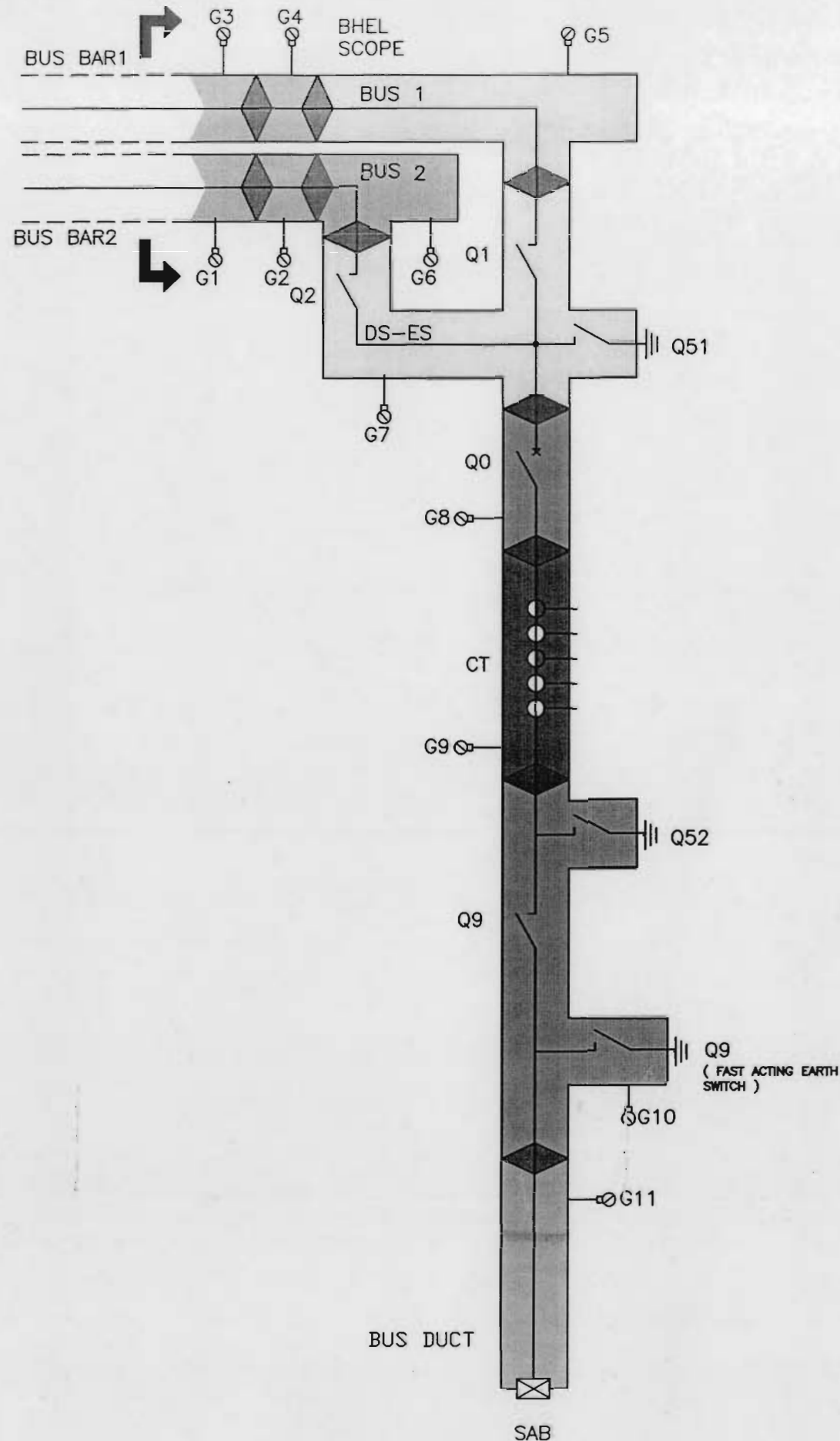
Sharma

28/9
SM(E)

NAME OF CUSTOMER	M/s NHPC Limited
NAME OF PROJECT	420 KV GIS EXTENSION BAY FOR CHAMERA-I POWER STATION (HIMACHAL PRADESH)
DOCUMENT NO	95007_GSM420_SLD
TYPE OF PRODUCT	GSM420
Customer Ref. Nos.	(1) Supply MGA No. : NH/Comd(E&M)-I/CH-I-11/PR 10814/433/2014/946 dated 07.04.2018 (2) Supply MGA No. : NH/Comd(E&M)-I/CH-I-11/PR 10814/433/2014/946 dated 07.04.2018
BHEL Ref.	95007A475-04
DATE	28.04.18
BY	AK
CHKD	AK
APPD	AK
SCALE	1:1
NO. OF SHEETS	01
SHEET NO.	01
DRAWING NO.	35209000001
REV	01

SINGLE LINE DIAGRAM OF
EXTENSION BAY FOR 3x42MVAR
BUS REACTOR

3520900000

EXISTING
SIDE

SF6 GAS PRESSURE:



- | | |
|---------------------|---------|
| 1. CIRCUIT BREAKER: | 7.5 BAR |
| 2. BUS 1: | 4.5 BAR |
| 3. BUS 2: | 4.5 BAR |
| 4. DS-ES: | 4.5 BAR |
| 5. ADAPTER UNIT: | 4.5 BAR |
| 6. CT | 4.5 BAR |
| 7. BUS DUCT: | 4.5 BAR |
| 8. DS-ES | 4.5 BAR |

BOQ OF ITEMS WITH STANDARD SYMBOL

DEVICE	SYMBOL	DESCRIPTION	TYPE	RATING	QTY.
Q1, Q2, Q10		DISCONNECTOR	GSM420_DS	3150A, 40kA	3
Q0		SF6 CIRCUIT BREAKER	GSM420_CB	3150A, 40kA	1
CT		CURRENT TRANSFORMER 5 CORE	GSM420_CT	CORE1&2:1500-750-375/1 CORE3,4&5:200/1	1
G1 TO G10		GAS MONITORING SYSTEM	GSM420_GMS	-	10
Q8		FAST ACTING EARTHING SWITCH	GSM420_FES	3150A, 40kA	1
SAB		SF6 TO AIR BUSHING	GSM420_SAB	2500A, 40kA*	1
Q51, Q52		MAINTENANCE EARTH SWITCH	GSM420_MES	3150A, 40kA	2
IU		INTERFACE UNIT	GSM420_IU	3150A, 40kA	1

MAIN TECHNICAL DATA

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RATED FREQUENCY	50Hz
RATED SHORT CIRCUIT BREAKING CURRENT	40kA FOR 1Sec
RATED SHORT TIME WITHSTAND CURRENT	40kA FOR 1Sec
RATED PEAK WITHSTAND CURRENT	100kAp
RATED DURATION OF SHORT CIRCUIT	1Sec.
RATED BUSBAR CURRENT @ AMBIENT TEMPERATURE OF 40°C	3150A
RATED FEEDER CURRENT @ AMBIENT TEMPERATURE OF 40°C	3150A
AMBIENT OPERATING RANGE TEMPERATURE OF 40°C	FROM -5°C TO 40°C

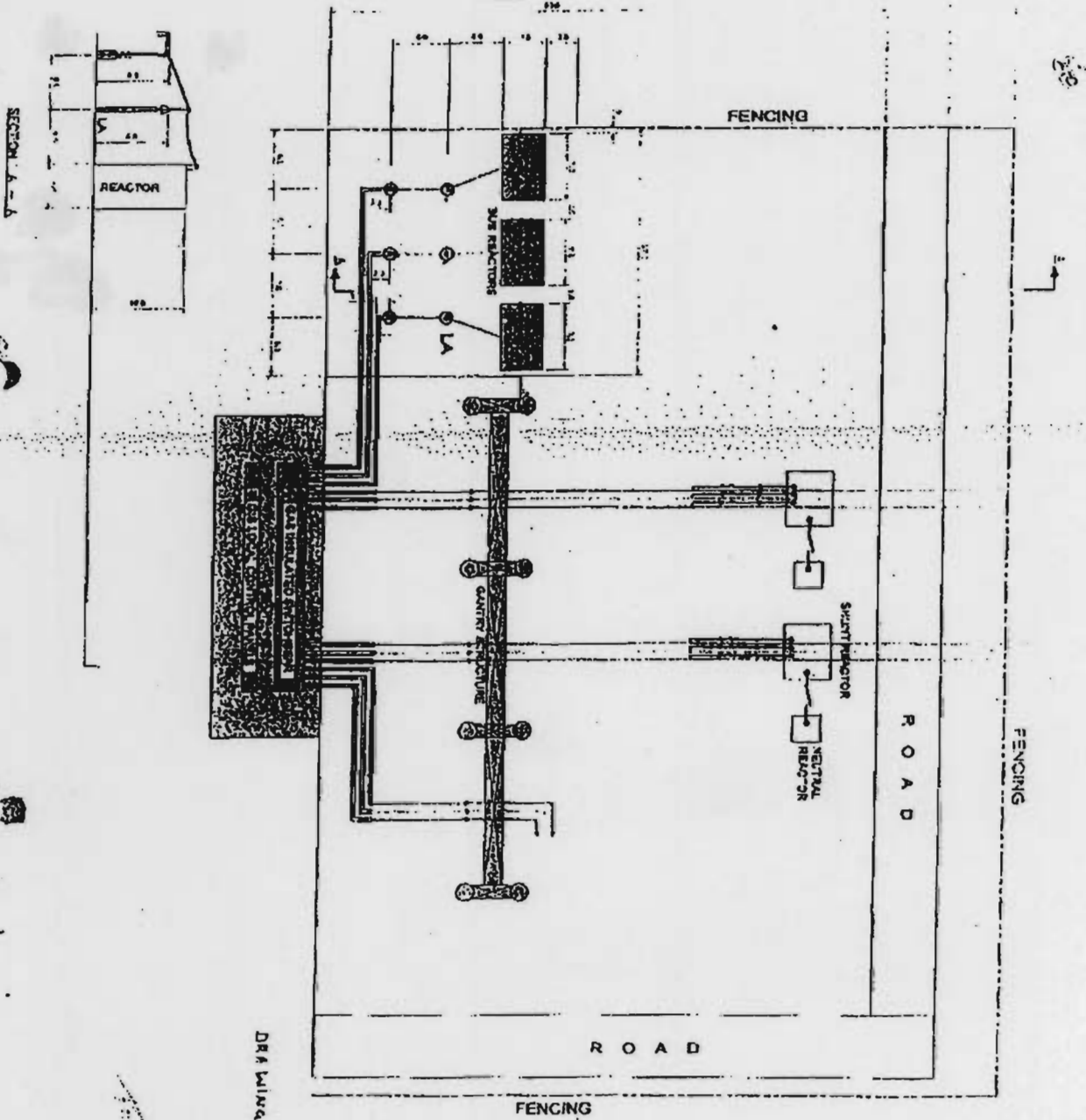
NAME OF CUSTOMER		M/s NHPC Limited				
NAME OF PROJECT		420 KV GIS EXTENSION BAY FOR CHAMARA-I POWER STATION (HIMACHAL PRADESH)				
TYPE OF PRODUCT		GSM420				
Customer Ref. Nos.		(1) Supply NOA No. : NH/Con/10014/433/2014/501 dated 07.07.15 (2) Supply NOA No. : NH/Con/10014/433/2014/501 dated 07.07.15				
BHEL Ref.		95007-A-475-04				
 BHEL-RAT HEAVY ELECTRICALS LTD. BHOPAL		DRN AKH CRD APPD	NAME AKH SS HRP	SIGN Sd/- Sd/- Sd/-	DATE 22.05.15 22.05.15 22.05.15	NO. OF VAR.
DEPT.	UNPOL. DESK. GR.		SCALE	REF. TO APP. C. ENG.	ITEM NO.	NO. OF ITEM
CODE	408		MTS	3520900000	3520900000	01
TITLE		DRAWING NO. 3520900000				SHEET 01
GAS DIAGRAM FOR 420KV GIS		SHEET NO. 01				

*SUITABLE FOR 3150A

Drawing modified on per
customer's requirement at A.A.2015

DRAWING-5-X(C)

1431 3000



DRAWING-5-X(C)

NHPC

