

REV 01 19465 CA 02 UNITECH 18465 CA 02

CUTOUT DETAILS

S.NO.	SHORT NAME	ITEM DESCRIPTION	CUTOUT SIZE:-	BEZEL SIZE:-	REMARK
1.	PB	PUSH BUTTON	Ø22.5mm	Ø30mm	
2.	IL	INDICATION LAMP	Ø22.5mm	Ø30mm	
3.	IND1, IND2	LEVEL INDICATOR	92X92mm	96X96mm	

TAG DETAIL

S.NO.	SHORT NAME	ITEM DESCRIPTION	TAG DESCRIPTION	FEEDER DETAIL	COLOUR
1	1IL1	INDICATION LAMP	ON	220V AC ON	RED
2	1IL2	INDICATION LAMP	OPEN	OPEN INDICATION FOR MOV-1 (95GF01AA001)	RED
3	1IL3	INDICATION LAMP	CLOSE	CLOSE INDICATION FOR MOV-1 (95GF01AA001)	GREEN
4	1IL4	INDICATION LAMP	OPEN	OPEN INDICATION FOR MOV-2 (95GF02AA001)	RED
5	1IL5	INDICATION LAMP	CLOSE	CLOSE INDICATION FOR MOV-2 (95GF02AA001)	GREEN
6	2IL1	INDICATION LAMP	ON	24V DC ON	RED
7	2IL2	INDICATION LAMP	CLOSE	SOV CLOSE INDICATION	GREEN
8	2IL3	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
9	2IL4	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
10	2IL5	INDICATION LAMP	CLOSE	SOV CLOSE INDICATION	GREEN
11	2IL6	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
12	2IL7	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
13	2IL8	INDICATION LAMP	CLOSE	SOV CLOSE INDICATION	GREEN
14	2IL9	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
15	2IL10	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
16	2IL11	INDICATION LAMP	CLOSE	SOV CLOSE INDICATION	GREEN
17	2IL12	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
18	2IL13	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
19	2IL14	INDICATION LAMP	CLOSE	SOV CLOSE INDICATION	GREEN
20	2IL15	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
21	2IL16	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
22	2IL17	INDICATION LAMP	CLOSE	SOV CLOSE INDICATION	GREEN
23	2IL18	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED
24	2IL19	INDICATION LAMP	OPEN	SOV OPEN INDICATION	RED

NOTE: ALL DIMENSIONS ARE IN MM
OVERALL TOLERANCE ± 2mm

FILE NAME: UNITECH 18465 CA & 02
PATH: I:\AUTOCADSERVER\18465

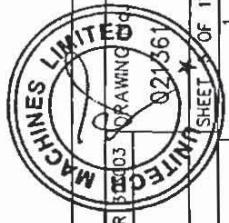
THIS DRAWING AND DESIGN IS THE PROPERTY OF PYROTECH ELECTRONICS PVT.LTD.UDAIPUR 313 003 AND MUST NOT BE COPIED OR LENT WITHOUT THEIR PERMISSION IN WRITING

25	1PB1	PUSH BUTTON	STOP	MOV-1 CLOSE (95GF01AA001)	RED
26	1PB2	PUSH BUTTON	START	MOV-1 OPEN (95GF01AA001)	GREEN
27	1PB3	PUSH BUTTON	STOP	MOV-2 CLOSE (95GF02AA001)	RED
28	1PB4	PUSH BUTTON	START	MOV-2 OPEN (95GF02AA001)	GREEN
29	2PB1	PUSH BUTTON	STOP	CLOSE COMMAND TO SOV FOR CRUDE OIL TANK-01 (9EGB12BB001)	RED
30	2PB2	PUSH BUTTON	START	OPEN COMMAND TO SOV FOR CRUDE OIL TANK-01 (9EGB12BB001)	GREEN
31	2PB3	PUSH BUTTON	STOP	CLOSE COMMAND TO SOV FOR CRUDE OIL TANK-02 (9EGB11BB001)	RED
32	2PB4	PUSH BUTTON	START	OPEN COMMAND TO SOV FOR CRUDE OIL TANK-02 (9EGB11BB001)	GREEN
33	2PB5	PUSH BUTTON	STOP	CLOSE COMMAND TO SOV FOR CRUDE OIL TANK-03 (9EGB13BB001)	RED
34	2PB6	PUSH BUTTON	START	OPEN COMMAND TO SOV FOR CRUDE OIL TANK-03 (9EGB13BB001)	GREEN
35	2PB7	PUSH BUTTON	STOP	OPEN COMMAND TO SOV FOR CRUDE OIL TANK-04 (9EGB10BB001)	RED
36	2PB8	PUSH BUTTON	START	OPEN COMMAND TO SOV FOR CRUDE OIL TANK-04 (9EGB10BB001)	GREEN
37	2PB9	PUSH BUTTON	STOP	CLOSE COMMAND TO SOV FOR GAS OIL TANK-01 (9EGB30BB001)	RED
38	2PB10	PUSH BUTTON	START	OPEN COMMAND TO SOV FOR GAS OIL TANK-01 (9EGB30BB001)	GREEN
39	2PB11	PUSH BUTTON	STOP	OPEN COMMAND TO SOV FOR GAS OIL TANK-02 (9EGB31BB001)	RED
40	2PB12	PUSH BUTTON	START	CLOSE COMMAND TO SOV FOR GAS OIL TANK-02 (9EGB31BB001)	GREEN
41	IND1	INDICATOR	.	INDICATOR FOR LT 95GF01 CL001	.
42	IND2	INDICATOR	.	INDICATOR FOR LT 95GF02 CL001	.

SHARAT HEAVY ELECTRICALS LTD
PROJECT ENGINEERING MANAGEMENT
PROJECT: MECHANICAL SUBSTATION

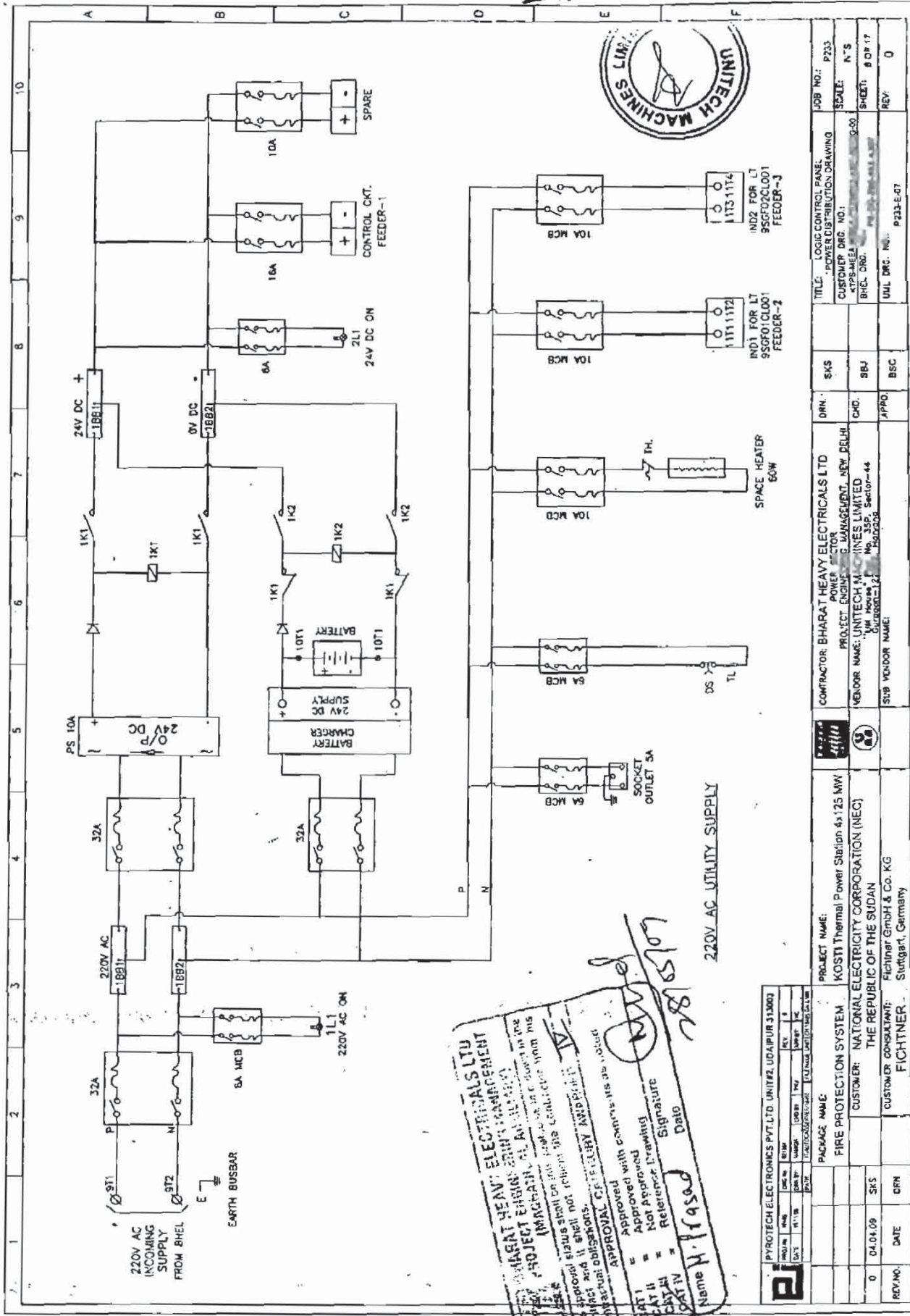
APPROVED: [Signature] DATE: 18/11/08
 CHECKED: [Signature] DATE: 18/11/08
 DRAWN BY: [Signature] DATE: 18/11/08

Scale: NTS



END USER: - N.E.C., SUDAN
 PYROTECH ELECTRONICS PVT.LTD. UNIT#2, UDAIPUR
 TITLE: - G.A. DRAWING OF LOGIC CONTROL PANEL
 CUSTOMER: - UNITED MACHINES LTD.

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UNITECH MACHINES LTD
PROJECT ENGINEER
 (MANGALAM) 21/01/2009
 The approval status shall be as per the contract and it shall not release the Contractor from contractual obligations.
 APPROVAL CATEGORIES AND SIGNATURES:
 DAT I = Approved with comments as noted
 DAT II = Approved
 DAT III = Not Approved
 DAT IV = Reference Drawing
 Signature: _____
 Date: _____
 Name: H. Rasad

REV. NO.	DATE	DRN	SKS
0	04.04.09	SKS	

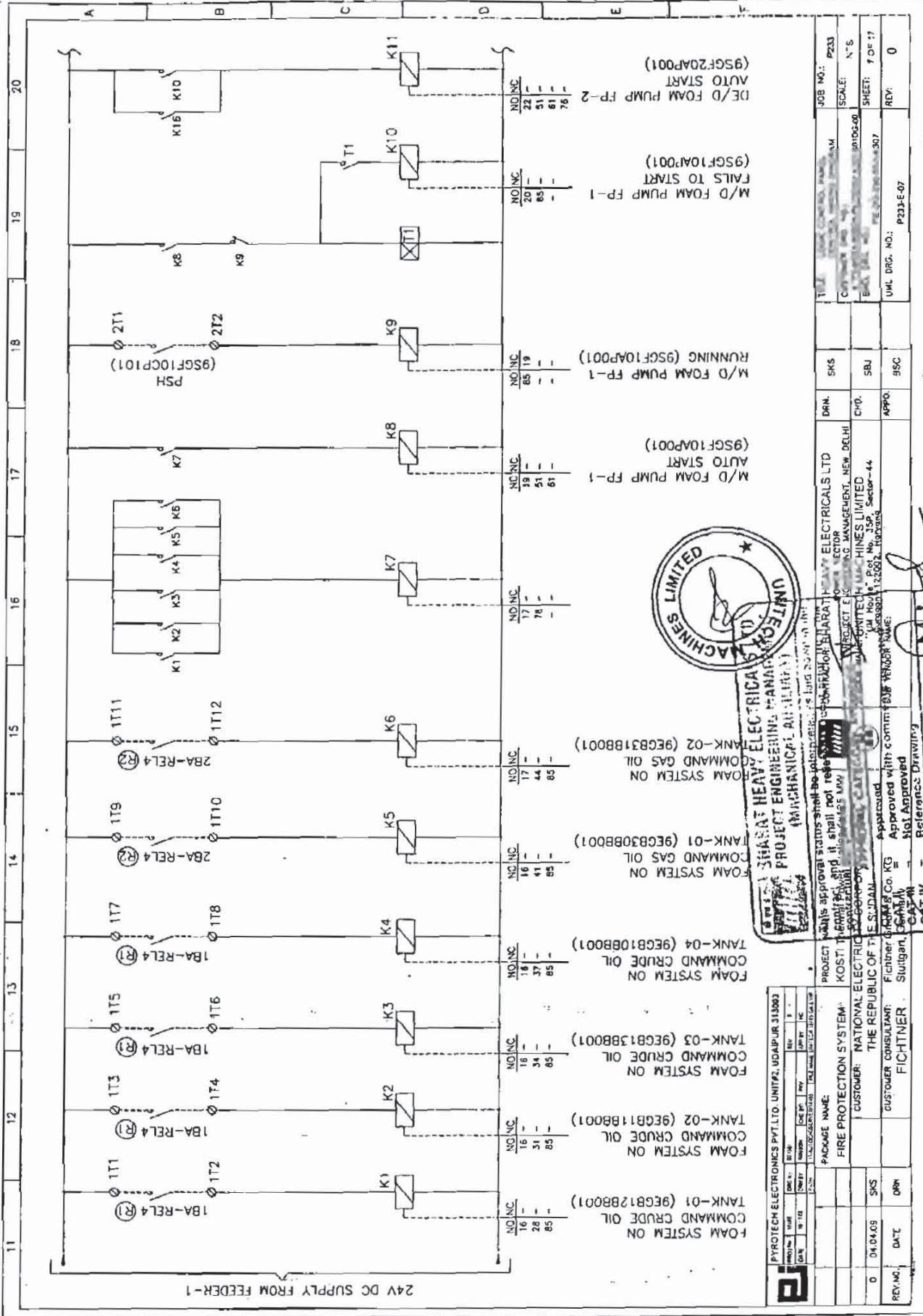
PROJECT NAME: FIRE PROTECTION SYSTEM
 CUSTOMER: NATIONAL ELECTRICITY CORPORATION (NEC)
 THE REPUBLIC OF THE SUDAN
 CUSTOMER CONSULTANT: Fichtner GmbH & Co. KG
 FIGHTNER, Stuttgart, Germany

CONTRACTOR: BHARAT HEAVY ELECTRICALS LTD
 POWER ENGINEER
 PROJECT ENGINEER: G. MANAMEET, NEW DELHI
 VENDOR NAME: UNITECH MACHINES LIMITED
 No. 33P, Sector-44
 Gurgaon-122009
 SUP VENDOR NAME: _____

220V AC UTILITY SUPPLY

TITLE: LOGIC CONTROL PANEL
 - POWER DISTRIBUTION DRAWING
 CUSTOMER DRG NO.: _____
 BHCL DRG. NO.: _____
 IND1 FOR LT 9SGFO1C001 FEEDER-2
 IND2 FOR LT 9SGFO2C001 FEEDER-3

JOB NO.: P233
 SCALE: N'S
 SHEET: 8 OF 17
 REV: 0



24V DC SUPPLY FROM FEEDER-1



SHARAT HEAVY ELECTRICALS AND PROJECT ENGINEERING (MACHINICAL AN...)
 (MACHINICAL AN...)
 This approval status shall be...
 and it shall not refer...
 PROJECT ENGINEERING (MACHINICAL AN...)
 (MACHINICAL AN...)

REV. NO.	DATE	BY	CHKD BY	DATE
0	04-04-03	SJS	DRK	
PACKAGE NAME: FIRE PROTECTION SYSTEM				
CUSTOMER: NATIONAL ELECTRIC THE REPUBLIC OF THE				
CUSTOMER CONSULTANT: Fichtner, Schlatter, Fichtner				
PROJECT: KOSTI... THE REPUBLIC OF THE				
PROJECT ENGINEERING (MACHINICAL AN...)				

NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC
16	16	16	16	16	16	16
31	31	31	31	31	31	31
85	85	85	85	85	85	85

NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC
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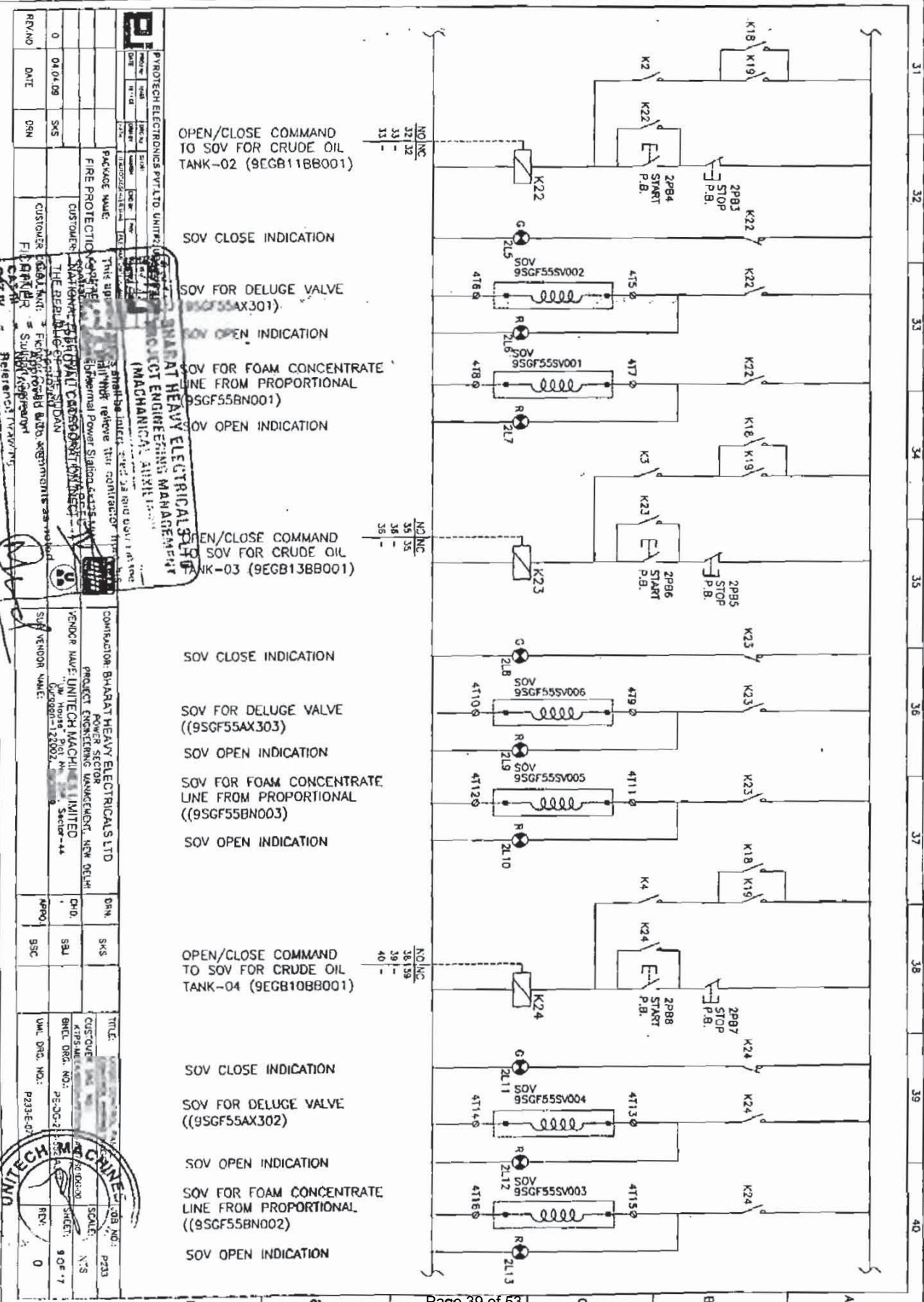
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51	51	51	51	51	51	51
22	22	22	22	22	22	22

NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC
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61	61	61	61	61	61	61
76	76	76	76	76	76	76

NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC	NO/NC
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85	85	85	85	85	85	85
61	61	61	61	61	61	61
51	51	51	51	51	51	51
22	22	22	22	22	22	22

UNITECH MACHINES LIMITED
 PROJECT ENGINEERING (MACHINICAL AN...)
 (MACHINICAL AN...)
 This approval status shall be...
 and it shall not refer...
 PROJECT ENGINEERING (MACHINICAL AN...)
 (MACHINICAL AN...)

UNITECH MACHINES LIMITED
 PROJECT ENGINEERING (MACHINICAL AN...)
 (MACHINICAL AN...)
 This approval status shall be...
 and it shall not refer...
 PROJECT ENGINEERING (MACHINICAL AN...)
 (MACHINICAL AN...)



REV/NO	DATE	DSN	SCALE	NO. OF SHEETS	TOTAL SHEETS
0	04.04.09	S/S	N/S	9 OF 17	0

PROJECT NAME:	SHARAT HEAVY ELECTRICALS LTD
CUSTOMER:	UNITECH MACHINERY
CONTRACTOR:	SHARAT HEAVY ELECTRICALS LTD
DATE:	04/04/09
SCALE:	N/S
SHEET NO.:	9 OF 17
TOTAL SHEETS:	17

REV/NO	DATE	DSN	SCALE	NO. OF SHEETS	TOTAL SHEETS
0	04.04.09	S/S	N/S	9 OF 17	0

OPEN/CLOSE COMMAND TO SOV FOR CRUDE OIL TANK-02 (9EGB11BB001)

SOV CLOSE INDICATION

SOV FOR DELUGE VALVE ((9SGF55AX301))

SOV OPEN INDICATION

SOV FOR FOAM CONCENTRATE LINE FROM PROPORTIONAL ((9SGF55BN001))

SOV OPEN INDICATION

OPEN/CLOSE COMMAND TO SOV FOR CRUDE OIL TANK-03 (9EGB13BB001)

SOV CLOSE INDICATION

SOV FOR DELUGE VALVE ((9SGF55AX303))

SOV OPEN INDICATION

SOV FOR FOAM CONCENTRATE LINE FROM PROPORTIONAL ((9SGF55BN003))

SOV OPEN INDICATION

OPEN/CLOSE COMMAND TO SOV FOR CRUDE OIL TANK-04 (9EGB10BB001)

SOV CLOSE INDICATION

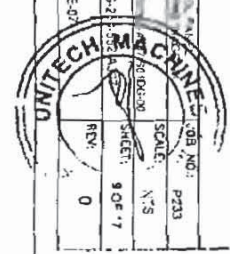
SOV FOR DELUGE VALVE ((9SGF55AX302))

SOV OPEN INDICATION

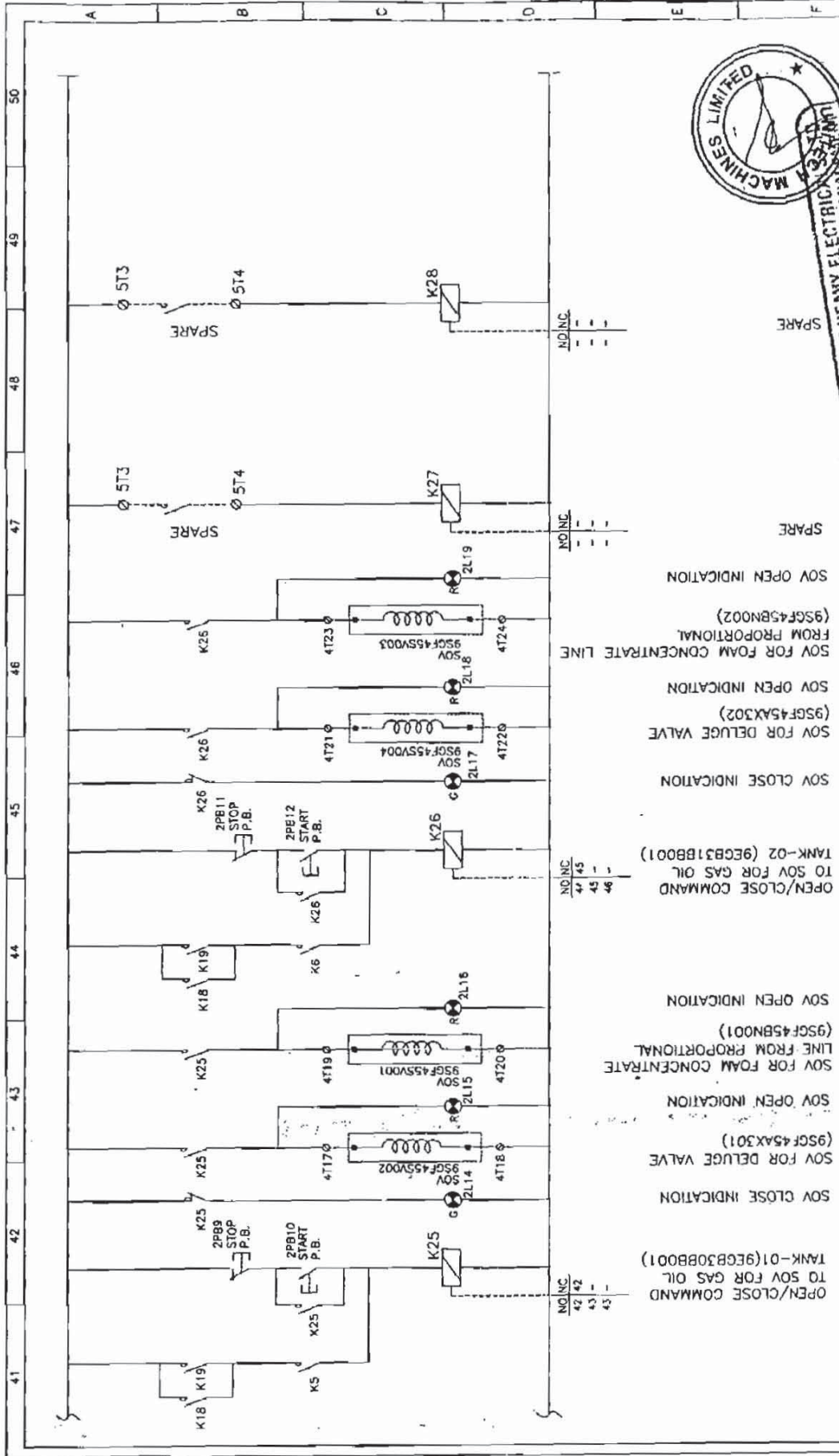
SOV FOR FOAM CONCENTRATE LINE FROM PROPORTIONAL ((9SGF55BN002))

SOV OPEN INDICATION

Signature: *[Handwritten Signature]*
 Date: 25/05/09
 Name: M. Prasad



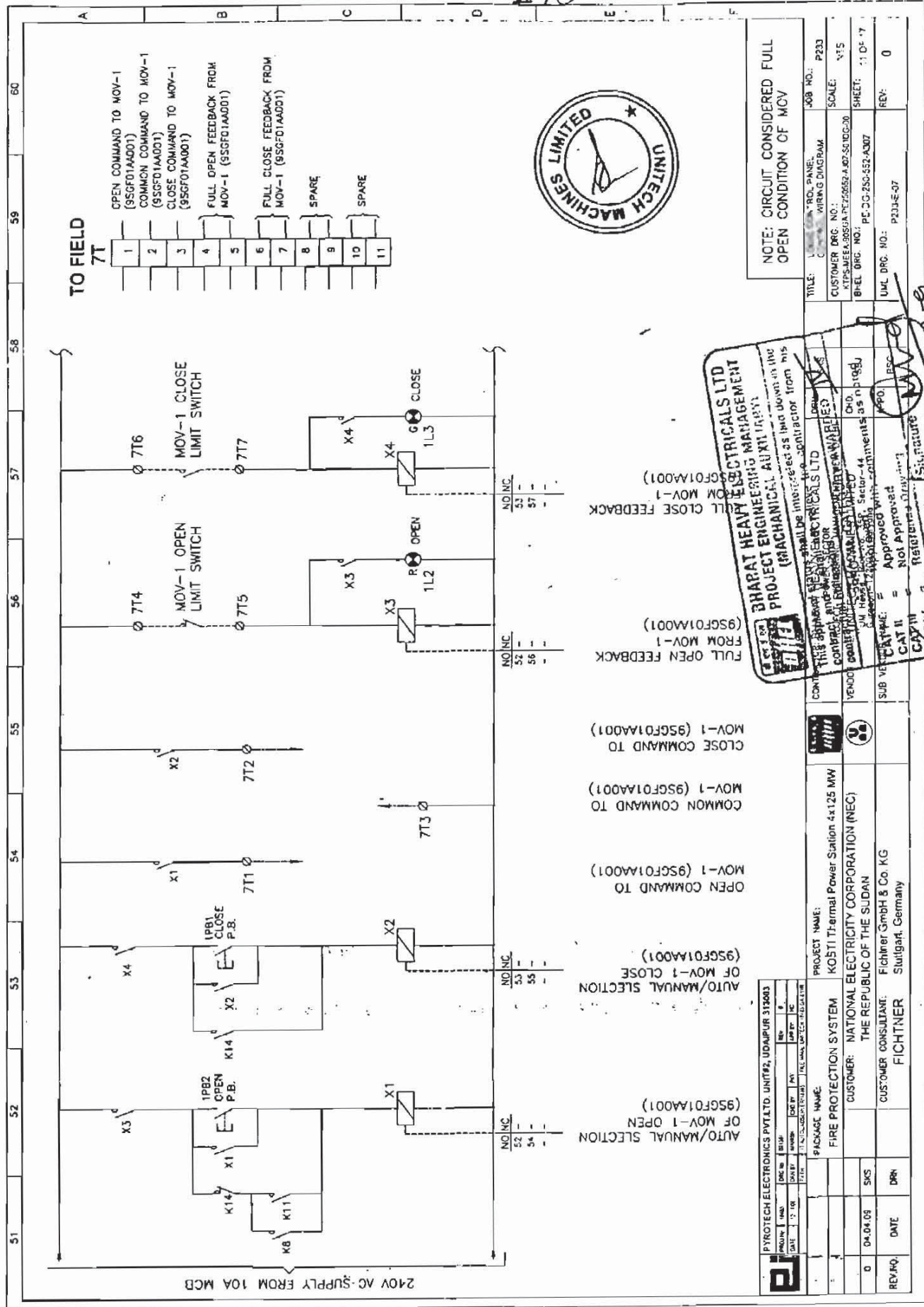
274



PI PYROTECH ELECTRONICS PVT.LTD. UNIT#2, UDAPUR 513003 PROJECT NO. 118 DATE 11/18 UNIT 118		REV. 1 DATE 11/18 UNIT 118		REV. 2 DATE 11/18 UNIT 118		REV. 3 DATE 11/18 UNIT 118	
(PACKAGE NAME) FIRE PROTECTION SYSTEM				PROJECT NAME: KOSTI Thermal Power Station 4x125 MW			
CUSTOMER: NATIONAL ELECTRICITY CORPORATION (NEC) THE REPUBLIC OF THE SUDAN				CONTRACTOR: BHARAT HEAVY ELECTRICALS LTD POWER SECTION ENGINEERING MANAGEMENT, NEW DELHI			
CUSTOMER CONSULTANT: Fichtner GmbH & Co. KG FICHTNER Suttgart, Germany				VENDOR NAME: UNIT 118 MACHINES LIMITED Plot No. 390, Sector-44 SOA, ESTERB			
REV. NO. DATE DRN				SUB VENDOR NAME			
0 04-04-09 SWS				APPROVALS: CAT I: Approved with comments P233-E-07 CAT II: NOT Approved CAT III: Resubmitted CAT IV: Resubmitted			
0 04-04-09 SWS				APPROVALS: CAT I: Approved with comments P233-E-07 CAT II: NOT Approved CAT III: Resubmitted CAT IV: Resubmitted			



BHARAT HEAVY ELECTRICALS LIMITED
 PROJECT ENGINEERING AUXILIARY (MECHANICAL AUXILIARY)
 APPROVED FOR THE PROJECT FROM JOB NO. P233
 THIS APPROVAL IS VALID FOR THE PROJECT AND IT SHALL BE VALID FOR THE PROJECT ONLY.
 CONTRACTUAL OBLIGATION IS NOT APPLICABLE.
 APPROVED BY: [Signature]
 APPROVED WITH COMMENTS: P233-E-07
 NOT APPROVED
 RESUBMITTED
 RESUBMITTED
 Signature: [Signature]
 Date: 11/18/18



TO FIELD
7T

- 1 OPEN COMMAND TO MOV-1 (9SGF01A001)
- 2 COMMON COMMAND TO MOV-1 (9SGF01A001)
- 3 CLOSE COMMAND TO MOV-1 (9SGF01A001)
- 4 FULL OPEN FEEDBACK FROM MOV-1 (9SGF01A001)
- 5 FULL CLOSE FEEDBACK FROM MOV-1 (9SGF01A001)
- 6 SPARE
- 7 SPARE
- 8 SPARE
- 9 SPARE
- 10 SPARE
- 11 SPARE



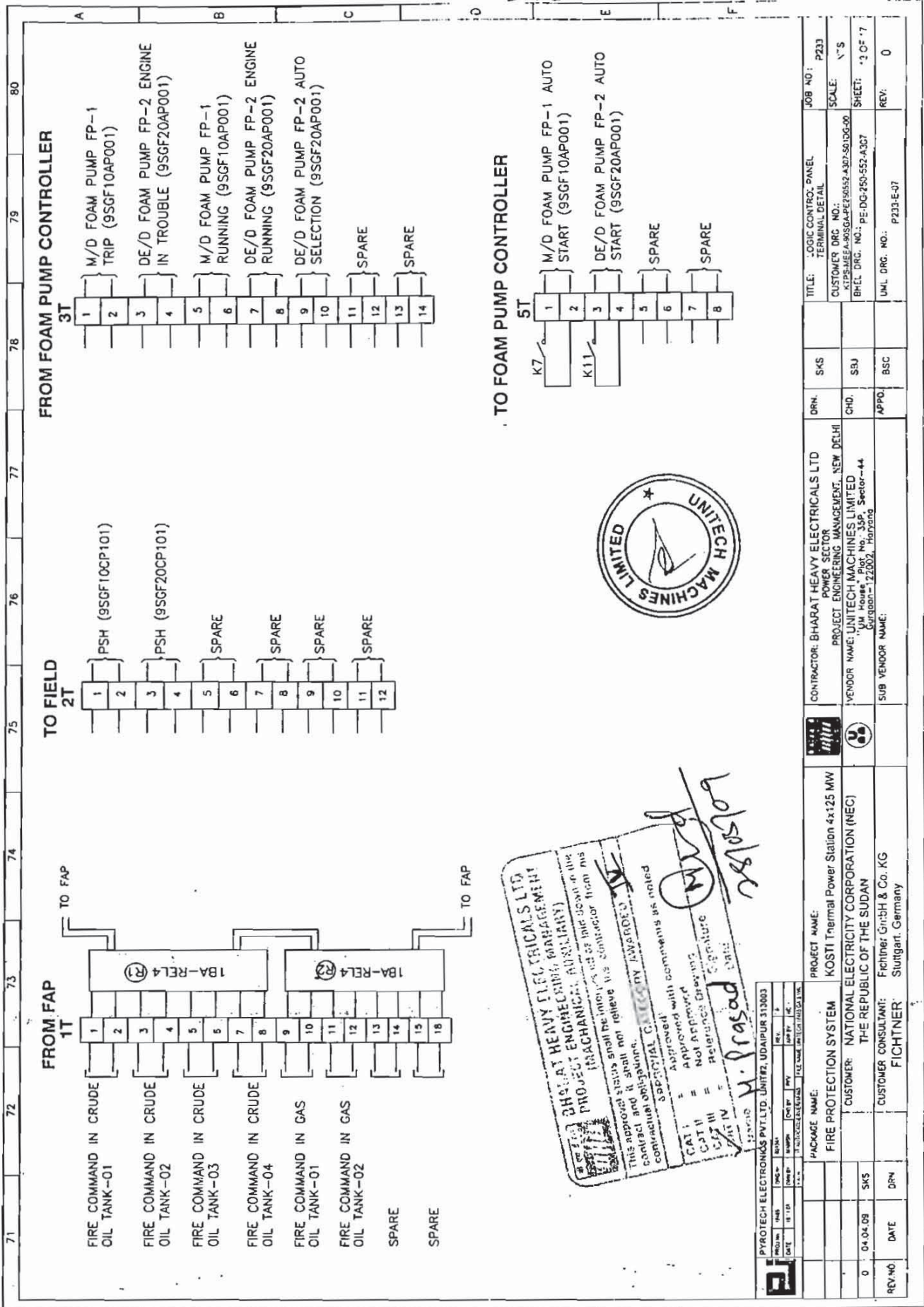
TITLE: C WIRING DIAGRAM	JOB NO.: P233
CUSTOMER DRG. NO.: ATPO/EEA/ROSA/PC/2002-A-02-S0-000-00	SCALE: N:15
B/E/L DRG. NO.: PC-20-250-452-A007	SHEET: 11 OF 17
U/L DRG. NO.: P233E-07	REV: 0

APPROVED BY: BHARAT HEAVY ELECTRICALS LTD
PROJECT ENGINEERING MANAGEMENT (MECHANICAL AUXILIARY)
 This approved drawing shall be interested as laid down in the contract and no change or modification without the written approval of the Project Engineer in Charge, Sector-44, Gurgaon, Haryana.
 Approved by: [Signature]
 CAT II = Not Approved
 CAT III = Refer to Drawing
 Name: M. Prasad Date: 28/05/09

NO/INC 52 - - -
 53 - - -
 54 - - -
 55 - - -
 56 - - -
 57 - - -
 58 - - -
 59 - - -
 60 - - -

REVNO.	DATE	DRN	CUSTOMER CONSULTANT: Fichtner GmbH & Co. KG Stuttgart, Germany
0	04.04.09	SWS	CUSTOMER: NATIONAL ELECTRICITY CORPORATION (NEC) THE REPUBLIC OF THE SUDAN
PROJECT NAME: KOSTI Thermal Power Station 4x125 MW		PROJECT NAME: FIRE PROTECTION SYSTEM	
PACKAGE NAME: PYROTECH ELECTRONICS PVT.LTD. UNIT#2, UDAMPUR 312003			

2.78



UNITECH MACHINES LIMITED
 PROJECT ENGINEERING MANAGEMENT, NEW DELHI
 VENDOR NAME: UNITECH MACHINES LIMITED
 'JIM House', Plot No. 33P, Sector-44
 Gurgaon-122002, Haryana

APPROVAL
 This approval shall be given only if the contractor has submitted all the documents as mentioned in the contract and it shall not relieve the contractor from his contractual obligations.
 APPROVED BY: *[Signature]*
 CAT I: Approved with comments as noted
 CAT II: Approved
 CAT III: Not Approved
 CAT IV: Referenced Drawing
 Date: *28/05/09*
 Signature: *V. Prasad*

REV. NO.	DATE	DRN	APPD.	SUB VENDOR NAME:
0	04.04.09	SXS	BSJ	Fichtner GmbH & Co. KG
REV. NO.	DATE	DRN	APPD.	SUB VENDOR NAME:
				Fichtner GmbH & Co. KG
PACKAGE NAME: FIRE PROTECTION SYSTEM CUSTOMER: NATIONAL ELECTRICITY CORPORATION (NEC) THE REPUBLIC OF THE SUDAN CUSTOMER CONSULTANT: Fichtner GmbH & Co. KG Stuttgart, Germany				
PROJECT NAME: KOSTI Thermal Power Station 4x125 MW CONTRACTOR: BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT, NEW DELHI				
CONTRACTOR: BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT, NEW DELHI VENDOR NAME: UNITECH MACHINES LIMITED 'JIM House', Plot No. 33P, Sector-44 Gurgaon-122002, Haryana				
TITLE: LOGIC CONTROL PANEL TERMINAL DETAIL		JOB NO.: P233		
CUSTOMER DRC NO.: K1P5JAEFA-905GAPF90552-A307-501D6-00		SCALE: 1"=5'		
BHEL DRC. NO.: PE-DG-250-552-A307		SHEET: 3 OF 7		
UML DRC. NO.: P233-E-97		REV.: 0		



FOAM PUMP WITH DIESEL ENGINE &
CONTROLLER

4 X 125 MWKOSTI TPP

SPEC NO. PE-TS-250-552-A003

VOLUME - III

ANNEXURE - I

REV.NO. | 0

**ANNEXURE - I
PRE-BID CLARIFICATION FORMAT**



FOAM PUMP WITH DIESEL ENGINE &
CONTROLLER

4 X 125 MW KOSTI TPP

SPEC NO. PE-TS-250-552-A003

VOLUME-III

ANNEXURE - II

REV.NO. | 0

ANNEXURE - II

SCHEDULE OF DEVIATIONS

(All deviations from the Technical Specification shall be filled in by the BIDDER clause by clause in this schedule)

