



ट्रॉम्बे,
मुंबई-४०० ०८५.
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भारत सरकार
GOVERNMENT OF INDIA
भाभा परमाणु अनुसंधान केन्द्र
BHABHA ATOMIC RESEARCH CENTRE
Centre for Design and Manufacture

REF: - BARC/CDM/NVP/2017/ \\\6

August 31, 2017

Sub: - Fabrication, Supply and Installation of 1 phase and 3 phase power points along with MCB DB's at Electroplating Shop in CDM.

To

Dear Sirs,

We would like to get Fabrication, Supply and Installation of 1 phase and 3 phase power points along with MCB DB's of Electroplating Shop in CDM.

Kindly send your most competitive quotation for 1 phase and 3 phase power points along with MCB DB's to the undersigned on or before **03/10/2017**. **The quotation should be in a sealed envelope, super scribed** "Fabrication, Supply and Installation of 1 phase / 3 phase power points along with MCB DB's" and address to : Head, CDM/BARC, Trombay, Mumbai-400085(Attn:- Shri. N.V.Parkar,SO/D) by speed post only.

1.1 Scope of work: As per Annexure-I

1.2 Acceptance Criteria:

1.2.1 The installation work will be checked for satisfactory work, workmanship and the quality of the items used. The final acceptance is given, only after IR test and actual performance of each circuit.

The following may be considered before quoting:-

1.2.2 No Advance Payment is permissible.

1.2.3 Tax details may be given along with quotation. Otherwise quotations are considered as invalid.

1.2.4 Offer shall be in your printed on letterhead with GSTN , Copy of PAN card shall be sent along with the offer. Income- Tax @2% will be deducted from your bill.

- 1.2.5 Payment will be made only upon satisfactory completion of installation. Advanced Stamped receipt for the full amount is required by our Accounts Division for processing the payment.
- 1.2.6 The scope of work includes supply of entire electrical accessories with other supporting materials. There is no Free Issue of Material (FIM).
- 1.2.7 The completion time for installation work is 60 days after issuing the Work Order. For any clarifications in this regard, Shri. N.V.Parkar, SO/D may be contacted on Ph: 25595357.
- 1.2.8 The Electrical accessories, which will be supplied by you will be inspected before the installation as per type number mentioned in the work order.
- 1.2.9 Police verified certificate (PVC) is required for the personnel, who are going to work in our premises.
- 1.2.10 The delivery schedule of the installation period shall be mentioned in the quotation.
- 1.2.11 **Guarantee:-** Offer shall have onsite warranty for the supplied items for one year from the date of acceptance.
- 1.2.12 Is Police Verification Certificate for the man power who is going to work here is available. : Yes/No.

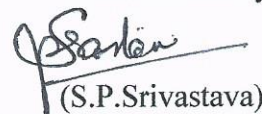
1.3 Contactor Scope of supply:-

- 1.3.1 All the items where "Supply" has been indicated under "Scope of work".
- 1.3.2 Supply of glands and lugs of all cable segments for termination shall be in party's scope.
- 1.3.3 Supply of consumable needed for cabling, fixing and termination i.e. saddles, spacers, nut-bolt, screws, anchor-fasteners, wooden rawal plugs also shall be in the party's scope.
- 1.3.4 Welding electrode shall be brought by the party for the on sight welding work.
- 1.3.5 Arrangement of working at heights with safety equipments shall be in party scope.
- 1.3.6 The working staff of the party shall bring all the necessary tools and tackles for the work at site i.e. drilling machine, cutting machine, screw driver & spanners set, crimping tools etc.
- 1.3.7 The working staff of the party shall bring all the necessary instruments for testing of the installation i.e. multi-meter, tong tester and insulation resistance tester etc.

1.4 Facility available:

- 1.4.1 Electricity and water for on-site work shall be provided to contactor, in free of cost.
- 1.4.2 Welding machine will be available by BARC for on-site welding jobs.

Yours Faithfully,


(S.P.Srivastava)

Head, Centre for Design and Manufacture

- CC: 1. Director, DCSEM, with a request to display on DPS notice board at
VSB
3. BARC/CDM Notice board.
4. Three addresses as per attached list.
5. File/N.V.Parkar.

Fabrication, Supply and Installation of 1 phase and 3 phase power points along with MCB DB's at Electroplating Shop in CDM

----- 1 LOT

1. Scope of work:-**1.1 Fabrication, Supply and installation of****(A) M.S. surface mounting wall Boards (W.B.1 to 4).....Qty.- 4 Sets****(B) Roma Plastic surface wall Boards (W.B.5 to. 7).....Qty.- 3 Sets**

- a) Please refer the Table-1 for specification and quantity details of W.B. No.1 to 4 and Table-2 for W.B. No.5 to 7
- b) The party shall fabricate the 4 Nos. of M.S surface mounting Boards with top cover of 2mm thickness for W.B. No. 1 to 4 of suitable size and 3 Nos. of Modular Roma Plastic surface Boxes for W. B. No. 5 to 7.
- c) M.S surface mounting Boards with top cover shall be powder -coated with white paint.
- d) The party shall supply and lay cable trunk/casing capping for wiring of these wall boards from the distribution MCB DB1, as per the specified routs at the sites.
- e) The party shall supply and lay 2.5 sq mm PVC flexible HFFR/FRZH grade copper wire, 1.1 KV as per IS: 694, and terminate the same at both their ends.
- f) All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing.
- g) The wires to be supplied, laid and terminated shall be in standards colors i.e.(Red+Yellow+Blue) Neutral color wire shall be in Black color only.
- h) Entire wall boards shall be mounted at height of 2 meters above the ground level.
- i) Earthing loop shall be provided for every metallic top cover for protection.

<u>TABLE-1</u>				
Drawing Reference	Detailed descriptions of each Set of M.S. surface mounting wall Board	Scope of work	Qty./Set	Total Quantity
W.B.NO.1 To W.B.NO.4	M.S. Board with top cover of suitable size	Fabrication, supply & Installation	1 No.	4 Nos.
	Single Phase metal clad socket 20A,Make: Reputed	Supply & Installation	3 Nos.	12 Nos.
	Single Pole C type MCB 20A, 10KA, Type: Siemens 5SL41207RC	Supply & Installation	4 Nos.	16 Nos.
	Uni. S.S. Neon Combined (4 fixing Holes) Make: Anchor, Model: 38794 Penta	Supply & Installation	2 Nos.	8 Nos.
	2.5 sq mm PVC flexible HFFR/FRZH grade copper wire. Make: Reputed	Supply & Laying	Lump sum	
	PVC casing Capping or cable trunk, Make: Reputed	Supply & Laying		
	Copper pin type lug for the above. Make: Reputed	Supply & Termination	30 Nos.	120Nos.

TABLE-2				
Drawing Reference	Detailed descriptions of each Set of Roma Plastic surface mounting Board	Scope of work	Qty./Set	Total Quantity
W.B.NO.5 To W.B.NO.7	Surface Plastic Box(White), 12Module Type: Roma 20347	Supply & Installation	3 Nos.	9 Nos.
	Single mounting Deko plate, 12Module Make: Roma 21361WH	Supply & Installation	3 Nos.	9 Nos.
	20A 1way SP switch Make: Roma 21066	Supply & Installation	4 Nos.	12 Nos.
	20 & 10A Twin Socket(Heavy Duty) , Make: Roma 30828	Supply & Installation	4 Nos.	12 Nos.
	4 sq mm PVC flexible HFFR/FRZH grade copper wire , Make: Reputed	Supply & Laying	Lump sum	
	PVC casing Capping or cable trunk, Make: Reputed	Supply & Laying		
	Copper pin type lug for the above. Make: Reputed	Supply & Termination	25 Nos.	75 Nos.

**1.2 Supply and installation of single Phase Power points (P.P) for Air conditioners....
Qty.- 2 Sets**

- Please refer the Table-3 for specification and quantity details of P.P. No.1 and 2.
- The Party shall supply and install 2 Nos. of Power points.
- The party shall supply and lay cable trunk/casing capping for wiring of these Power points from the distribution MCB DB1, as per the specified routs at the sites.
- The party shall supply and lay 2.5 sq mm PVC flexible HFFR/FRZH grade copper wire, 1.1 KV as per IS: 694 and terminate the same at both their ends.
- All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing.
- The wires to be supplied, laid and terminated shall be in standards colors i.e.(Red + Yellow + Blue) Neutral color wire shall be in Black color only.
- All Plastic wall boards shall be mounted at height of 2 meters above the ground level.

TABLE-3				
Drawing Reference	Detailed descriptions of each Set of 3 Phase A/C Power points	Scope of work	Qty./Set	Total Quantity
P.P.NO.1 and P.P.NO.2	1Phase 20A, 2P MCB, Make : Siemens, Type No: 8GB0501SRC	Supply & Installation	1No.	2 Nos.
	2 pole, type C ,20A MCB Type: Siemens 5SL422077RC	Supply & Installation	1No.	2 Nos.
	2.5 sq mm PVC flexible HFFR/FRZH grade copper wire , Make: Reputed	Supply & Laying	Lump sum	
	PVC casing Capping or cable trunk, Make: Reputed	Supply & Laying		
	Copper pin type lug for the above. Make: Reputed	Supply & Termination	05 Nos.	10Nos.

1.3 Supply and installation of 3 Phase Power points (P.P.) for

(A) Bottom Exhaust fans.....Qty.-1

(B) Set Monorail cranes.....Qty.-2 Sets

- a) Please refer the Table-4 for specification and quantity details of P.P. No.3 and Table-5 for P.P. No.4 & 5.
- b) The Party shall supply and install 2 Nos. of 3 phase Power points for Monorail cranes 1 No. of 3 Phase power point for Bottom Exhaust fan.
- c) The party shall supply and lay cable trunk/casing capping for wiring of these Power points from the distribution MCB DB1, as per the specified routs at the sites.
- d) The party shall supply and lay 1.5 sq mm and 2.5 sq. mm PVC flexible HFFR/FRZH grade copper wire, 1.1 KV as per IS: 694 and terminate the same at both their ends.
- e) All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing.
- f) The wires to be supplied, laid and terminated shall be in standards colors i.e.(Red+Yellow+ Blue) Neutral color wire shall be in Black color only.
- g) These power points shall be mounted at height of 2 meters above the ground level.

TABLE-4				
Drawing Reference	Descriptions of each Set of 3 phase Bottom Ex. Fan Power point	Scope of work	Qty./Set	Total Qty.
P. P. No.3	Minigard Distribution Boards, Single Door DBs, IP20, 6 Module, Type: Siemens 8GB32100RC04	Supply & Installation	One	One
	3 pole, type C ,4A MCB Type: Siemens 5SL43047RC	Supply & Installation	2 Nos.	2 Nos.
	1.5 sq mm PVC flexible HFFR/FRZH grade copper wire, Make: Reputed	Supply & Laying	Lump sum	
	PVC casing Capping or cable trunk, Make: Reputed			
	Copper pin type lug for the above, Make: Reputed	Supply & Termination	15 Nos.	15 Nos.
TABLE-5				
Drawing Reference	Descriptions of each Set of 3 phase Monorail crane Power points	Scope of work	Qty./Set	Total Qty.
P. P. No.4 & 5	Minigard Distribution Boards, Single Door DBs, IP20, 4 Module DB Box 8GB0104, Make: Siemens	Supply & Installation	1 No.	2 Nos.
	3 Pole C type 20A MCB Type: Siemens 5SL43207RC	Supply & Installation	1 No.	2 Nos.
	2.5 sq mm PVC flexible HFFR/FRZH grade copper wire, Make: Reputed	Supply & Laying	7Nos	14 Nos.
	PVC casing Capping or cable trunk, Make: Reputed	Supply & Laying	Lump sum	
	Copper pin type lug for the above, Make: Reputed	Supply & Termination		

1.4 Supply and installation of Single Phase Power points (P.P.) for

(A) Top Exhaust Fans.....Qty.-5Sets

(B) Wall Fans.....Qty.-4Sets

(C) Out-door flood Lights....Qty.-2Sets

- Please refer the Table-6 for specification and quantity details of P.P. No.6 and 16.
- The Party shall supply and install 11 Nos. of 1 phase Power points.
- The party shall supply and lay cable trunk/casing capping for wiring of these Power points from the distribution MCB DB2, as per the specified routs at the sites.
- The party shall supply and lay 1.5 sq mm PVC flexible HFFR/FRZH grade copper wire, 1.1 KV as per IS: 694 and terminate the same at both their ends.
- All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing.
- The wires to be supplied, laid and terminated shall be in Red or Blue color and Neutral color wire shall be in Black color only.
- The switch shall be mounted at height of 2 meters and socket shall be mounted at height 4.5 meters above the ground level near the Top Exhaust fans.

TABLE-6				
Drawing Reference	Descriptions of each Set of Ex. Fans, wall fans & flood lights	Scope of work	Qty./Set	Total Qty.
P. P. No.6 to 16	6AX 1 Way Switch, White Make : Roma 21011M	Supply & Installation	1 Nos.	11 Nos.
	6A multi socket for 3 pin & 4 pin Make : Roma 30373M	Supply & Installation	1 Nos.	11 Nos.
	Single mounting Deko plate , 2Module, white, Make : Roma 21328WH	Supply & Installation	1 Nos.	22 Nos.
	Roma Surface Plastic box , 2Module 85X85 Make : Roma 21281	Supply & Installation	1 Nos..	22 Nos.
	Copper pin type lug for the above, Make: Reputed	Supply & Termination	5 Nos	55 Nos.
	1.5 Sq.mm PVC flexible HFFR/FRZH grade copper wire , Make: Reputed	Supply & Laying	Lump sum	
	PVC casing Capping or cable trunk, Make: Reputed	Supply & Laying		

1.5 Supply and installation of 3 Phase Power points for Air circulators and Portable Grinder...Qty.- 1Set

- Please refer the Table-7 for specification and quantity details for P.P. No.17&18
- The Party shall supply and install 2 Nos. of 3 phase Power points for Air circulator (AC) and Portable Grinder (PG)
- The party shall supply and lay cable trunk/casing capping for wiring of these Power points from the distribution MCB DB4(existing DB), as per the specified routs at the sites.
- The party shall supply and lay 1.5 sq mm PVC flexible HFFR/FRZH grade copper wire, 1.1 KV as per IS: 694 terminate the same at both their ends.
- All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing.

- f) The wires to be supplied, laid and terminated shall be in standards colors i.e. (Red + Yellow + Blue) Neutral color wire shall be in Black color only.
- g) These power points shall be mounted at height of 2 meters above the ground level.

TABLE-7				
Drawing Reference	Descriptions of each Set of Air circulators and Portable Grinder	Scope of work	Qty./ Set	Total Qty.
P. P. No.17 & 18	Minigard Distribution Boards, Single Door DBs, IP20, 6 Module, Type: Siemens 8GB32100RC04	Supply & Installation	1 No.	1 No.
	3 pole, type C ,4A MCB Type: Siemens 5SL43047RC	Supply & Installation	1 No.	1 No.
	3 pole, type C ,16A MCB Type: 5SL43167RC, Make: Siemens	Supply & Installation	1 No.	1 No.
	1.5/ 2.5 sq mm PVC flexible HFFR/FRZH grade copper wire, Make: Reputed	Supply & Laying	Lump sum	
	Copper pin type lug for the above. Make: Reputed	Supply & Termination	6 Nos.	12 Nos.

1.6 Supply and installation of Single fluorescent tube light fittings(TL) at EPS Plant...Qty.16 Sets

- a) Please refer the Table-8 for specification and quantity details of TL 1 to 16.
- b) The Party shall supply and install 16 Nos. fluorescent tube light fittings of 36/40 watts with tubes and starter of rating 230 Volts AC.
- c) The party shall supply and lay cable trunk/casing capping for wiring of these Power points from the distribution MCB DB2, as per the specified routs at the sites.
- d) The party shall supply and lay 1.5 sq mm PVC flexible HFFR/FRZH grade copper wire, 1.1 KV as per IS: 694 through trunk/casing capping for wiring these power points and terminate the same at both their ends.
- e) All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing.
- f) The wires to be supplied, laid and terminated shall be in standards colors i.e. Red or Blue and Neutral color wire shall be in Black color only.
- g) These power points shall be mounted at height of 2 meters above the ground level.

TABLE-8				
Drawing Reference	Descriptions of each Set of Single fluorescent tube light fittings	Scope of work	Qty./ Set	Total Qty.
TL 1 to 16	Box type Fluorescent tube light fitting having copper ballast of 40 watts with tube 36 watts, starter and plastic adopter. Make: Philips or reputed equivalent	Supply & Installation	1 No.	16 Nos.
	Plastic square box with angular Holder Make: Reputed	Supply & Installation	1 No.	16 Nos.
	Surface Plastic Box , 8 Module Rectangular 152x145, Make: Roma 20450	Supply & Installation	1 No.	1 No.
	Single mounting Deko plate , 2Module, white, Make : Roma 21350WH or suitable equivalent	Supply & Installation	1 No.	1 No.
	6AX 1 Way Switch, White Make : Roma 21011M	Supply & Installation	1Nos	8 Nos.
	1.5 sq mm PVC flexible HFFR/FRZH grade copper wire , Make: Reputed	Supply & Laying	Lump sum	
	Copper pin type lug for the above, Make: Reputed	Supply & Termination	1 No.	8Nos.

1.7 Supply and installation of MCB Distribution Boards(MCB DB).....Qty.-3 Sets

- a) Please refer the Table-9 for specification details.
- b) The Party shall supply and install 3Nos. MCB DB's with MCB's.
- c) The party shall supply and lay cable trunk/casing capping for wiring of these Distribution Boards to various power points as per the specified routs at the sites.
- d) All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing.
- e) Termination of the outgoing connection is in scope of work.
- f) The Distribution Boards shall be mounted on the wall with spacers at height of 2.5 meters above ground level.
- g) Termination of incoming 3.5Cx25 sq.mm aluminum armoured cable as per IS for MCB DB1 and termination of incoming 3.5Cx16 sq.mm aluminum armoured cable as per IS for MCB DB2 is in scope of work.
- h) Laying and fixing work of 10-12 meters long incoming cables (Sizes mentioned in para F) for MCB DB1 and MCB DB2 is in scope of work.
- i) Removal work of Old Fuse DB3. Mounting and termination of 4 Nos. of 3 phase power connections of 3.5Cx16sq.mm PVC armoured aluminum cables and 2 Nos. of 1 Phase lighting connections of 1Cx1.5sqmm PVC flexible copper wires to new MCB DB 3 is in scope of work. Incoming connection of existing 3.5Cx25sq.mm aluminum cable is in also scope of work.
- j) The party shall supply cable brass glands and lugs of suitable sizes for termination of this work.

TABLE-9				
Drawing Reference	Descriptions of each Set of MCB DB	Scope of work	Qty./ Set	Total Qty.
MCB DB1	Double door per ph. Isolation,TPN DB's 8 way 8GB0409HRC Make : Siemens	Supply & Installation	1 No.	1 No.
	4 pole C type MCB 63A, 10KA, Type: Siemens 5SL44637RC,	Supply & Installation	1 No.	1 No.
	3 pole C type MCB 20A, 10KA, Type: Siemens 5SL43207RC	Supply & Installation	2 Nos.	2 Nos.
	2 pole C type MCB 50A, 10KA, Type : Siemens 5SL42507RC ,	Supply & Installation	3Nos .	3 Nos.
	1 Pole C type MCB 25A, 10KA , Type: Siemens 5SL41257RC	Supply & Installation	4 Nos.	4 Nos.
	Fixing saddles, Brass Cable glands & Copper pin type lugs for the above	Supply, Installation & Termination	1 Set	1 Set
	3.5Cx25sq.mm PVC armoured aluminum cables 1.1KV as per IS:1554 Make: Polycab/R R kabel/Havells/Finolex	Supply & Installation	25mtrs.	25 mtrs.
MCB DB2	Minigard Distribution Boards, Double Door SPN DBs , IP42, 12way Type: 8GB0212HRC, Make: Siemens	Supply & Installation	1 No.	1 No.
	4 pole C type MCB 32A, 10KA, Type: Siemens 5SL44327RC	Supply & Installation	1 No.	1 No.
	1 pole C type MCB 10A, 10KA, Type: Siemens 5SL41107RC	Supply & Installation	10 Nos.	10 Nos.
	3.5Cx16sq.mm PVC armoured aluminum cables , Make: Polycab/RRkabel/Havells/Finolex	Supply & Installation	25 mtrs.	25 mtrs.
	Fixing saddles, Brass cable glands & Copper pin type lugs for the above. Make: Reputed	Supply, Installation & Termination	1 Set	1 Set
MCB DB3	Double door TPN DB's 8way, 8GB0408HRC Make : Siemens	Supply & Installation	1 No.	1 No.
	4 pole C type MCB 63A, 10KA, Type Siemens: 5SL44637RC	Supply & Installation	1 No.	1 No.
	4 PoleC type MCB 32A, 10KA, Type Siemens: 5SL44327RC	Supply & Installation	6Nos .	6Nos.
	1 pole C type MCB 10A, 10KA, Type: Siemens 5SL41107RC	Supply & Installation	3Nos .	3Nos.
	1 Pole C type MCB 20A, 10KA , Type: Siemens 5SL41207RC	Supply & Installation	3Nos .	3Nos.

1.8 Warranty, Supply and installation of 1 phase Exhaust Fans(F)...Qty.-5 Sets

- a) Please refer the Table-10 for specification details.
- b) The Party shall remove 5Nos. of existing old exhaust fans which are mounted at 4.5 meters height above the ground level.
- c) The party shall supply and install new exhaust fans along with 6A top at their existing place properly.
- d) Termination and testing of exhaust fans is in scope of work.
- e) The party shall remove the out-door M.S. mesh and install new S.S. mesh at their place.

TABLE-10				
Drawing Reference	Descriptions of each Set of Wall Fans	Scope of work	Qty./Set	Total Qty.
F3 to F7	Power: 500-600Watts, Speed: 900 RPM, Sweep:24 Inch, Heavy Duty Type Exhaust Fan ,1 Phase: 230Volts AC, No of Blades:4 Almonard/CG/Havells or equivalent	Warranty, Supply & Installation	1 No.	5 Nos.

1.9 Warranty, Supply and installation 1 phase Wall Fans (Air circulators).....Qty.-4 Sets

- a) Please refer the Table-11 for specification details.
- b) The Party shall remove 1No. of existing old wall fan which is mounted at 3 meters height above the ground level.
- c) The party shall supply and install wall fans (4 Nos) along with 6A top at their place properly.
- d) Termination and testing of exhaust fans is in scope of work.

TABLE-11				
Drawing Reference	Descriptions of each Set of 1 phase Wall Fans	Scope of work	Qty./Set	Total Qty.
F8 to F11	Power:@250Watts, Sweep: 750 MM/30Inch, Speed: 1440RPM, 1Phase, Air Circulator Wall Fan , No of Blades:3 Almonard/CG/Havells or equivalent	Warranty, Supply & Installation	1 No	4 Nos.

2.0 Warranty, Supply and installation of Flood Lights(FL) with power supply.....Qty.-2 Sets

- a) Please refer the Table-12 for specification details. The Party shall supply flood lights with power supply.
- b) The party shall fabricate the suitable fixtures for individual mounting. The flood light position shall be adjusted by 120 degree.

TABLE-12				
Drawing Reference	Descriptions of each Set of Flood Light	Scope of work	Qty./Set	Total Qty.
FL1 & FL2	Power Consumption- 100-120watts Operating Voltage-230 Volts AC Color: Cool White, IP Rating :IP 65/66 Make:- Reputed	Warranty, Supply & Installation	1 No.	2Nos.

2.1 Supply, installation of lighting and power points of Electroplating Room (EPS) Qty.-1 Set

- Please refer the Table-13 for specification and quantity details of TL 17 to 22.
- The party shall supply accessories mentioned in the Table-13 and install lighting and power points .
- Tube lights shall be mounted at height of 3 meters height above the ground level.
- The Party shall supply and install 6 Nos. fluorescent tube light fittings of 36/40 watts with tubes and starter of rating 230 Volts AC.The party shall supply and lay casing capping for wiring of these lighting points from the distribution MCB DB2, as per the specified routs at the sites.
- The party shall supply and lay 1.5 sq mm PVC flexible HFFR/FRZH grade copper wire, 1.1 KV as per IS: 694 through trunk/casing capping for wiring these lighting points and terminate the same at both their ends. All the termination shall be lugged and shall have ferrules, bearing number of the incoming DB outgoing. The wires to be supplied, laid and terminated shall be in standards colors i.e. Red or Blue and Neutral color wire shall be in Black color only.
- The main board of this room shall be mounted at height of 2 meters above the ground level.

TABLE-13				
Drawing Reference	Descriptions of each Set	Scope of work	Qty./Set	Total Qty.
EPS Room	Box type Fluorescent tube light fitting having copper ballast of 40 watts with tube 36 watts, starter and plastic adopter. Make: Philips or reputed equivalent	Supply & Installation	6 Nos.	6 Nos.
	Angular Holder with plastic square box Make: Reputed	Supply & Installation	6 Nos.	6 Nos.
	Surface Plastic Box , 8 Module Rectangular 152x145, Make: Roma 20450	Supply & Installation	1 No.	1 No.
	Single mounting Deko plate , 2Module, white, Make : Roma 21350WH or suitable equivalent	Supply & Installation	1 No.	1 No.
	6AX 1 Way Switch, White Make : Roma 21011M	Supply & Installation	4 Nos.	4 Nos.
	6A multi socket for 3 pin & 4 pin Make : Roma 30373M	Supply & Installation	2 Nos.	2 Nos.
	1.5 sq mm PVC flexible HFFR/FRZH grade copper wire, Make : Reputed	Supply & Laying	Lump sum	
	Copper pin type lug for the above, Make : Reputed	Supply & Termination	25 Nos.	25 Nos.

2.2 Modification and Installation PCC Panel supplied by CDM-BARC.... Qty.-1 Set

- a) Please refer the Tabel-14.
- b) Removal Work of Existing 200A Skelton Panel.
- c) PCC type 200Amp Panel is supplied by CDM-BARC.
- d) Fabrication & Supply of mounting base (Height -1ft.) for new panel is in scope of work.
- e) Wiring alteration and minor modification in new panel as per requirement is in scope of work.
- f) Supply, installation and termination of 3 Pole 100 Amps SFU, Type No:VF100 or Equivalent, Make : Siemens in the new panel at vacant place.
- g) Termination of existing 3.5Cx185sq.mm PVC aluminum armored incoming cable.
- h) Termination of outgoing connections.(details given)
- i) The party shall supply cable brass glands and lugs of suitable sizes for termination of this work.
- j) Supply and Laying of copper Earthing strip is in scope of work.

TABLE-14				
Drawing Reference	Descriptions of each Set	Scope of work	Qty. /Set	Total Qty.
EPS PCC Panel	PCC Panel 200AMPS	Modification , installation & termination	1 Set	1 Set
	3 Pole 100 Amps SFU, Type No:VF100 or Siemens Equivalent,	Supply , installation & termination	1 No.	1 No.
	4 pole C type MCB 63A, 10KA, Type: 5SL44637RC, Make : Siemens	Supply , installation & termination	3 Nos.	1 Nos.
	Fixing saddles, Brass cable glands & Copper pin type lugs for the above	Supply, Installation & Termination	1 Set	1 Set
	Copper earthing Strip, Size 25mmx 3mm with fixing saddle	Supply, Installation, Laying& Termination	40 mtrs	40 mtrs.
	M.S. Channel Mounting Base, Height:1Foot	Supply and Installation	1 No.	1 No.

Ref. No: BARC/CDM/NVP/2017/1116

Electroplating shop Layout

