



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT  
ARIYALUR  
ELECTRICAL DEPARTMENT**

|                    |                    |                                   |                     |
|--------------------|--------------------|-----------------------------------|---------------------|
| <b>Issue No:02</b> | <b>Rev. No: 00</b> | <b>Effective Date: 01.11.2019</b> | <b>SOP/ELEC/025</b> |
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| <b>Issued By: M.R</b> | <b>Approved By: HOD (E&amp;I)</b> |
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**SOP FOR OPERATION OF AUTO POWER FACTOR CONTROLLER**

**Scope** : SOP is applicable for operation of APFC.

**Responsibility** : Shift Electrical engineer/Shift Technicians

**Accountability** : Section Head Electrical

**PPE:**

1. Safety helmet,
2. Safety shoe,
3. Goggles
4. Electrical gloves

**Tools:**

1. General Tools

**Hazards:**

**Risks associated**

Electrical Shock  
Flashover of contactor.  
Electrocution (Fatal)  
Electrical Flash  
Electrical Fire

**Mitigating Measures**

Tested Electrical Rubber Hand Gloves  
Feeder to be locked properly.

**Training needs:**

1. Work related training
2. Emergency preparedness
3. Fire fighting
4. First aid including CPR training
5. Electrical safety training



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**SOP FOR OPERATION OF AUTO POWER FACTOR CONTROLLER**

**Procedure for operation of APFC.**

1. During power export, all APFC panel to be selected in auto mode only.
2. During power import, load variation are more and if power factor is not able to maintain as required (PF 0.99), one APFC can be take in Manual mode at CMBH and CCR load center as per requirement.
3. Before taking in Manual mode ensure the entire chamber door to be fully closed and tight with given panel lock or lock bolt.
4. Operate the required capacitor bank one by one.
5. During switch on capacitor bank, keep your body away from front of operating bank.
6. Switching time delay between one capacitor bank to other will be 30 seconds.
7. Once one capacitor bank is switched off, the same bank should not be on before 40 seconds.
8. Put back all the APFC in auto mode when export started.

**Emergency / Emergency Shut OFF:**

1. If hand/leg injury is there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9865952222

**Records/Annexure:**

1. JSA as enclosed below.



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| SOP FOR OPERATION OF AUTO POWER FACTOR CONTROLLER |             |                            |              |

**JOB SAFETY ANALYSIS : (JSA)**

| <b>Job Safety Analysis</b>   | Job: Resume the power during blackout | Date: 01 – 04 - 2014           | Analysis by: Shift Incharge                               | Reviewed by: Section Head     |
|--|---------------------------------------|--------------------------------|---|-------------------------------|
| Title of employee doing job: shift engineer / Electricians                 | Supervisor: Shift In charge           | Department: Electrical         | Section: All Section                                      | Approved by: Electrical HOD   |
| Reqd./recommended PPE: Safety helmet, Safety shoe, safety goggle & Gloves. |                                       |                                |   |                               |
| Sequence of Basic Job Steps  | Potential Hazards                     | Recommended Safe Job Procedure | What Could Go Wrong                                       | Corrective Action             |
| Operating of APFC panel cover  | Panel flash over and burned injury    | Ensure Tightness of panel door | Not checked during operation                              | Tool box talk/Proper Training |
|  |                                       | Keep yourself beside the panel | Not follow the procedure                                  | Tool box talk/ SOP Training   |
|  |                                       | Wear safety Goggles /          | Damaged goggles/non standard goggles/ Not wearing goggles | Periodic replacement/Training |