



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



<b>Issue No. 01</b>	<b>Rev. No: 02</b>	<b>Effective Date: 07.07.2017</b>	<b>SOP/ELEC/025</b>
---------------------	--------------------	-----------------------------------	---------------------

<b>Issued By: M.R</b>	<b>Approved By: HOD (E&amp;I)</b>
-----------------------	-----------------------------------

**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



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



<b>Issue No. 01</b>	<b>Rev. No: 02</b>	<b>Effective Date: 07.07.2017</b>	<b>SOP/ELEC/025</b>
---------------------	--------------------	-----------------------------------	---------------------

<b>Issued By: M.R</b>	<b>Approved By: HOD (E&amp;I)</b>
-----------------------	-----------------------------------

**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 taken 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.



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



**Issue No. 01**      **Rev. No: 02**      **Effective Date: 07.07.2017**      **SOP/ELEC/025**

**Issued By: M.R**      **Approved By: HOD (E&I)**

**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