



Issue No. 01 Rev. No: 00 Effective Date: 01.03.2016 SOP/CPP/01

Issued By: M.R Approved By: HOD -CPP

**SOP For CHP conveyor Start Hooter Service & Maintenance** 

**SCOPE**: Describing CHP conveyor start hooter service & maintenance work to

Electricians

**Responsibility**: Electrical Engineer.

**Accountability** : Section In charge.

#### PPE:

- 1. Nose mask
- 2. Electrical Safety shoes
- 3. Safety helmet
- 4. Goggles
- 5. Electrical safety Gloves
- 6. Cotton Gloves
- 7. Safety shoes
- 8. Safety helmet

#### Tools:

- 1. LOTO Lock
- 2. Megger
- 3. Multi meters
- 4. Wire brush
- 5. Hand Blower
- 6. Waste Cloth
- 7. Suitable spanner
- 8. Hammer
- 9. Insulated Screw driver





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#### Hazards:

Risk Associated Electrical Shock

Minor body injury Dust emission

Electrical flash over

Mitigating Measures
Electrical Safety Gloves,
Rubber soled safety shoes.

Safety shoes, gloves, helmet, goggles Nose mask

Flash Proof Face Shield.

#### Training needs:

- 1. Electrical shock recovery Training
- 2. Emergency preparedness
- 3. Fire fighting
- 4. First aid training

#### Procedure

- 1. Take the Line Clearance for the particular Conveyor Hooter as per ELEC/SOP/003.
- 2. Clean the hooter with Wire Brush, Hand Blower & Cloth, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
- 3. Remove the Back cover to inspect the carbon brush, Check the Condition of the Carbon brush & holder, while cleaning use PPEs like Nose mask, goggles and hand Gloves.
- 4. Measure the carbon brush length if it is below 5mm replace with new brush.
- 5. Check the Power Cable Connection Tightness & Condition of Terminal Block with proper tools.
- 6. Check the Insulation Resistance, Winding Resistance and Inductance of the Field & Armature winding..
- 7. Remove the Fan impellor cover with suitable with screw driver.
- 8. Remove the Impeller with suitable spanner.





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- 9. Remove the Impeller casing/End shield with proper screw driver & spanner.
- 10. Remove the Carbon brushes & holders by using suitable screw driver& spanner.
- 11. Remove the Armature & check the commutetor if the brush contact area is Uniform in circumference use the same if not replace the new Armature.
- 12. Check the Field coil Windings check the insulation resistance by Megger If it is Good use the same or else replaced with new coil.
- 13. Check the condition of the bearings of DE & NDE if it is good use the same, if not replace with new bearings for removal of the bearings use suitable bearing puller.
- 14. After replacement of the bearings refit the armature, End shield Impeller & cover & carbon brushes with suitable tools.
- 15. Close the cover Properly.
- 16. Clear the LC as per ELEC/SOP/004.

#### **Emergency / Emergency Shut OFF:**

1. If electrical shock injury or burn is there, give First aid and inform to the Safety department or Call Emergency number 222/9865155288/9865177444.

#### **Records/Annexure:**

- 1. Refer Line clearance certificates.
- **2.** ISA as enclosed below.





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### **JOB SAFETY ANALYSIS : (JSA)**

Job Safety Analysis	Job: LT motor maintenance	Date:	Analysis by:	Reviewed by:
Title of employee doing job: Electrician	Supervisor: Section Engineer	Department: Electrical	Section:	Approved by:

Req'd/recommended PPE: Nose mask, Goggles, Electrical safety Gloves, Cotton Gloves ,Safety shoes,

Safety helmet

Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Put on PPE, Take Permit	Slip / trip of person	Use handrails in stairs	Fall of person	Avoid slippery floor Use hand rails
Cleaning of Hotter	Eye irritation,	Wear goggles	Damaged goggles/ non standard googles	Periodic replacement
	Respiration problem	Wear Nose mask	Damaged nose mask	Periodic replacement
	Body injury	Wear safety helmet, safety shoes , hand gloves	Tools and material may fall on human body	Without PPE don't perform the job
Open the hooter terminal box cover	Electrical shock	Use Electrical safety gloves	Damaged Gloves	Periodic replacement.
Check the tightness of terminals	Body injury	Use proper tools  Wear safety helmet, safety shoes , hand gloves	Nonstandard /damaged tools Tools and material	Training for tools handling/ Periodic replacement
Check the insulation resistance, winding resistance, inductance Close the terminal box cover	Electrical shock	Use Electrical safety gloves Use Calibrated meters	may fall on human body Damaged Gloves	Without PPE don't perform the job Periodic replacement Meter shall be
Assembling the Hooter	Hand Injury	Use standard tools	Faulty meters damaged tools Tools and material may fall on human bod	calibrated periodically Periodic replacement & Without PPE don't perform the job