



RAA-ONE CONSTRUCTION & ENGINEERING PTE LTD

RAA-ONE
GROUP

Reg no: 201027290W, No 280 Woodlands Industrial Park, E5 #10-08 Harvest @ Woodlands
Singapore - 757322

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SAFE WORK PROCEDURE FOR

REPAIR TO FAULTY UNDERGROUND CABLES BETWEEN STREETLIGHT POLES AT CHANGI AIRPORT
CARGO AREA

REV	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY
1	3/01/2023	Safe work procedure	Anubhav Gaba	Rameshkumar	Rajamanickam





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LOCATION:

This safe work procedure covers all the steps required for completing the **CHANGI AIRPORT CARGO AREA**

1. Purpose

The purpose of this safe work procedure is to ensure every work personnel understand which risk control measure to be implemented towards different kind of hazards. The implementation of the safe work procedure will eliminates working hazard during CAC installation work and Electrical work, hence, provide a safe to work environment.

2. Scope

The following safe work procedure shall be imposed as the minimum basic requirements for safety in executing the above work. This shall be cross reference to WSH Regulation and shall be fully complied with and effectively adopted by all site personal of

3. References

- The Workplace Safety and Health Act
- WSH (General Provisions) Regulations
- Permit to Work (General)
- Permit to Work (Hot Work)
- Permit to Work (Working at Height)
- Fire Safety Act
- RA-001

4. Tools And Equipment To Be Used

- C-Channel, Anchor bolts, Brackets, stud rods, washers and nuts
- Makita grinder , wire cutting tools,screw driver Measuring Tape





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- Hammer/Spanner/ Hand drills
- Hand Tools & Hand Gloves
- Platform ladder
- Manual Lifter
- Electrical tools/machinery

5. Roles and Responsibilities

- Project Manager, Safety Supervisor shall ensure worker understand how to identify hazard and the implement towards hazard. The management corresponding risk control measure to team shall continuously train and monitor workers on safe working behavior.
- Safety Supervisor shall ensure that all workplace/site installation work to comply with WSH Regulation. He shall recommend appropriate control measure and continually improve the workplace safety and health.
- Worker shall receive training according to their roles and responsibility. Worker shall comply with Safe Work Procedure. Problem shall immediately highlight to the management team.

6. Pre –requirement

- Ensure that all personnel working at site attended the Safety induction course by the main contractor.
- All electrical tools to be inspected and approved by LEW.
- All equipment's to be good safe and working conditions.
- Adequate precautions shall be in place when doing high risk activity.
- All PPE to be in good safe and working conditions.
- Shall maintain good housekeeping at all time.
- Only trained qualified and competent personnel shall carry out the work activity.
- All safety requirement by the main contractor shall be complied without failed .

7. SAFE WORK PROCEDURES AND METHOD OF WORK FOR- ELECTRICAL INSTALLATION

Transferring of materials & Accessories by Manual Handling / Trolley or pallet jack.

- Ensure to maximize usage of trolley and pallet jack to minimize manual handling.
- Use proper manual handling posture.
- Not to force carry beyond worker strength maximum 25 kg but can be lesser.
- Buddy system on long material.
- Briefed the worker about Safe work procedure (Manual Handling) prior to start work.





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- Conduct training for manual handling
- To ensure materials are stack & secure properly.
- Coordination for putting down materials.
- Wear appropriate and effective type of protective gloves and other required PPE Keep clear the passage way before proceed the work.
- To ensure materials are stack & secure properly.
- Do not stack to high Ensure passage way clear of debris.
- Briefed the worker about safe work procedure.
- Effective barricade for designated storage area





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Using electrical hand tools for pipe installation work- Drill, grinder, pipe auto cutter

- All the electrical tools approved with LEW sticker / chop before use.
- To ensure cables are in good condition & to use only industrial type plug.
- To provide proper ELCB/RCCB for all electrical hand tools.
- To out the work, ensure that the work area is dry. Worker to clear the ponding water before carry
- To hang up electrical cable above 2 meter.
- Ensure all tools are safe to use and in good working condition.
- Do not do any modification on tools or equipment.
- Briefed the worker about Safe work procedure prior to start work.
- Site supervisor to ensure that all work personnel are issued with safety glasses / face shield.
- Ensure do not remove grinder cover or half-moon when grinding work in progress Briefed the worker about Safe work procedure prior to start work.
- Only use equipment with original cover for rotating part.
- Do not modify or remove cover of rotating part.
- To ensure workers are provided with ear plugs.
- Ear plugs and ear muffler to be worn if sound generated is more than 85Db
- To monitor the sound level and rotate the workers if each worker are expose to excessive noise for a long period of time
- Supervisor to ensure proper usage of ear muffler.
- Supervisor to ensure all workers near the vicinity.
- Do not remove rotating cover panel when using band saw, grinder or any guarding from ventilation fan and other electrical tools.
- Site supervisor to ensure that no work personnel wear loose clothing and to removed necklaces, bracelets or any similar jewelries that can be caught with the rotating parts.
- To provide proper PPE (. provided appropriate dust mask, face Shield, protecting clothing etc.).
- Effective barricade for work area to prevent unauthorized entry.
- secured hand tools to prevent falling.
- Briefed the worker about Safe work procedure prior to start work.





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Preparation/installation works for CAC.

- Ensure valid PTW/RA for hot work activity
- Remove all Flammable and Combustible materials from the hot work area.
- Effective barricade for work area to prevent unauthorized entry.
- keep away or use fire blanket to cover all the ignition sources.
- check the connection and hose with soap solution from end to end for leakage.
- Smoking prohibited at work zone and to display signage.
- Provide Fire watch man with a Fire extinguisher.
- Use appropriate mask to prevent Asphyxiation.
- SDS/SWP briefing Provide ventilation fan to prevent inhalation of fume by welder.
- PPE according to requirement.

Working at height using only platform ladder

- Competent WAH personnel
- Ensure Valid PTW
- Adhere to FPP
- Briefed the worker about Safe work procedure prior to start work.
- Ladder must be checked physically prior to start work.
- Ladder shall be in operation on flat and stable ground
- Buddy system to be enforce when working on ladder
- Ladder checklist to be used to check ladder
- Effective Barricade for work area to avoid unnecessary collision of machinery or work force with ladder
- Only trained skilled and fit workers are to be assigned to work at height.
- Full body safety Harness to be worn and hook up 2 lanyards in a rigid anchor point by the workers.
- Provide Safe work platform and monitor by the supervisor at all times.
- Check the Condition of the ladder and ensure is safe for use
- Only trained skilled and fit workers are to be assigned to work at height.
- Ensure all PPE in good working condition and safe to use.
- Carry the working tools in a proper bucket, Waist pouches, Container or tool belts.
- Do not place any materials at the top of the ladder
- Tied the hand tools with the body to prevent the tools being falling from height.
- Remove unused materials equipment as soon as possible.





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- Do proper Housekeeping immediately after finish work
- Effective Barricade with signage's for work area to prevent unauthorized entry.

Outdoor work

- All the workers to drink more water during working on the rooftop under the hot sun.
- Find Shady area for the worker to rest and drink water periodically.
- Scheduled the work during the Cooler part of the day if permitted.
- Do not engage Worker who are new and come from cold countries unless they have been acclimatized with Singapore hot environment
- Brief the workers about Heat stress and the risk during working on the hot environment.
- To wear Loose and light coloured Clothing during hot Sun.
- Do not carry out physical work while it is raining.
- Provide lighting protection shelter to rest and stay inside during Lighting alert.
- Do not carry out physical outdoor work during heavy raining.

Housekeeping

- Ensure all sharp edges is properly covered to avoid from cut.
- Ensure protruding object are covered
- Ensure access way are cleared and assess-able for human.
- Briefed the worker about Safe work procedure prior to start work.
- If area too dusty to spray water.
- Ensure worker use proper PPE
- Briefed the worker about Safe work procedure prior to start work
- Ensure to maximize usage of trolley and pallet jack to minimize manual handling.
- Use proper manual handling posture.
- Not to force carry beyond worker strength maximum 25 kg but can be lesser.
- Buddy system on long material.
- Briefed the worker about Safe work procedure (Manual Handling) prior to start work.
- Conduct training for manual handling
- To ensure materials are stack & secure properly.





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- Coordination for putting down materials.
- Wear appropriate type of protective gloves and clothing.
- Briefed the worker about Safe work procedure prior to start work
- Supervisor to coordinate

Staff and worker welfare & health (Staff and worker working long hours or late night)

- Supervisor to check to ensure worker do not consume alcohol or under any medication and sufficient rest or sleep, whether fit to work before day or night work start.
- Worker that reported sick or unwell are not allowed to work.
- Worker working up to 24hr are to be given an off day on the following day
- Worker working over 12 mid nights are to have at least 8hr of the before the next working shift.

8. OTHER SAFETY REQUIREMENT

- To ensure employees work safety in the SITE, the following safety practices need to be observed.
- All clothing to be of long sleeve or uniform required by main contractor.
- Personal Hygiene shall be observed at all times.
- When employees are above 60 years of age, doctor certificate for fitness shall be obtained once a year for such staff before they can continue to work.
- All work related incident (such as first aid for cuts) and medical injury due to work shall be immediately report to the supervisor for further actions and keep a record of such incident.

9. TRAINING REQUIRED

- Risk Management Course
- Building Construction Safety Supervisor Course
- SPPG Safety Course
- Work At Height Supervisor Course
- First-Aided Course
- Safety Coordinator Course
- In House Safety Induction course





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10. PERSONAL PROTECTIVE EQUIPMENT REQUIRED

- Safety Helmet
- Safety Boot
- Safety Reflective Vest
- Long Sleeve Shirt
- Hand Glove
- Safety Glass
- Ear Plug
- Mask
- Face Shield
- Full Body Harness
- Welding Hand Glove
- Welding Face Shield

11. REVIEW AND UPDATE

- This procedure, together with the risk assessment, shall be reviewed every 3 yearly or when the following conditions occur:
- When there is an injury / accident.
- When there is a change of work method or procedure and major change of head of department or equipment

Record for this safe work procedure and all subsequent amendments shall be kept for at least three years

