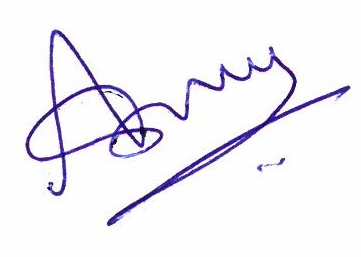
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| 1 | Delivering, unloading and storing of PVC Pipe/cable and fittings using pickup and unloading by manual handling | **Plant and Traffic movement**   * Run over by vehicles/plants * Hit by reversing equipment * Overhead obstructions * Vehicle break down * Property damage * Collision with other vehicles * Personal injury | Operatives  Staff/visitors | 3 | 4 | 12 | Med | 1. Delivery/ collection drivers shall be subject to McLaren induction/Training with regards to traffic management. 2. Ensure exclusion zone is set up around the preparation work area and all plant movement and checked by supervisor 3. Always use the pedestrian access provided 4. Traffic light batons shall be provided for banks man at night 5. All plant to have a fully trained banks man present all times. 6. No plant to reverse without banks man. 7. Ensure access route are sufficient and safe to use. 8. Do not take rest in or under vehicles 9. Proper barricade and safety signboard provided on open excavation 10. All vehicles must be fitted with reverse alarm / Flashing light. 11. The work place and all access to be well illuminated. 12. Enforce Speed limit 13. Ensure all vehicles entering the site is properly maintained and reported if found any defect 14. Ensure materials are secured/tied in pallet trolley to avoid fall from trolley. | 1 | 4 | 4 | Low | Site Eng.  Supervisor, Foreman, |
| 2 | Manual Handling | 1 Improper Manual Handling technique  2 Wrong Posture  3 Poor visibility  4 Lack of access & egress  5 Back aches  6 Slippery surfaces | Operatives involved in work | 3 | 4 | 12 | Med | 1. Work briefing must be conduct before starting the activity. 2. Eliminate the need for manual handling by using mechanical aid. 3. Operatives must be trained for safe manual handling 4. If unsure of the load weight, check with supervisor. 5. Ensure proper manual handling procedure 6. Ensure adherence with sufficient and appropriate PPE. 7. Limit load carrying to 20kg per person 8. Supervisor must make sure while manual handling loads individual task and environment to be considered to reduce the risk of manual handling. 9. Manual Handling assessment will be carried by SAF 68 | 1 | 4 | 4 | Low | Supervisor, Foreman, Site Eng. |
| 3 | Material storing | 1 Loose & unsecured material  2 smoking at storage area  3 Incorrect storage &improper materials stacking  4 Fire  5 Slip, Trip & Fall | Operatives  Staff/storekeeper | 3 | 4 | 12 | Med | 1. Ensure accesses are kept clear at all times. 2. Housekeeping to be carried out regularly throughout the day when required 3. Supervisor to ensure operatives are stacking material neatly and stacks are stable and in a safe condition 4. Provide adequate lighting especially during night hours 5. Appropriate space is allowed around storage areas for employees to move around safely without the risk being trapped between stacked materials. 6. No smoking signage must be displayed in storage area and strictly to be followed smoking policy 7. Fire extinguisher must be available in storage area in fore point. 8. Emergency number must display in storage area   . | 1 | 4 | 4 | Low | Supervisor, Foreman,  Site Eng. |
| 4 | Installation of Light fittings/cables temporary services for electrical work | Electricity  Electrocution  Electric fire  Electrical burns | Workers  Foreman | 3 | 4 | 12 | Med | 1 Ensure PTW for work near live services is obtained.  2 RAMS briefing to be conducted and recorded.  3 Competent electricians to be involved similar knowledge of task  4 Ensure that the power lines or breakers are isolated before dismantling of power Panels  5 All hand tools and power tools to be used as instructed during training and/or as per the manufacture specification  6 To report any damages cables or tools immediately to their supervisor.  7All the hand tools must be proper insulated and inspected  8 Correct PPE’s to be used  9 All the light fittings must be properly secured  10 Fire Extinguisher must be in place.  11 All the temporary DB must have weekly inspection by competent supervisor will maintain an inspection tag  12 All the temporary light fittings must be install with safe manner and cables must be protecting by conduits.  13 Cable management must be in good condition and properly protected. | 1 | 4 | 4 | Low | Supervisor  Foreman |
| 5 | Installation of Plumbing pipe/drainage pipe for temporary services using Mobile Tower | **Work at height**   * Fall form height * Falling objects * Narrow access & poor posture * Protruding * objects   Water pressure | Operatives/Staff/  Visitors  Others | 3 | 4 | 12 | Medium | 1. STARRT card briefing must before starting the activity 2. Ensure the PTW in place. 3. Ensure proper working platform with complete fall protection 4. Ensure Full body harness and 100% Tie off 5. Ensure the scaffold platform is properly erected with "Safe to use" tag. 6. Ensure castor wheels are locked 7. Hand tools must be secured/tethered 8. Work materials strictly not allowed to be stored on platform except for working tools 9. Ensure avoid over reaching and climb on handrail. 10. Ensure unauthorised person not allowed to modify the scaffolding and if needed to any changes then must be modified by trained and certified scaffolder. 11. Ensure safe access to the working platform 12. Scaffold access must be free from obstruction 13. Ensure sufficient illumination in work area 14. Ensure while fittings the GI clamp and brackets operatives must safely use drill machine to avoid finger injury. 15. Ensure that working near fragile surface special care of body and eye protection with necessary PPE. 16. During fixing of drainage fitting and plumbing activity make sure access is suitable for safe work place to avoid poor posture. 17. Make sure there is no water flooding   18 Must clean the debris after completion the job and maintain good housekeeping. | 1 | 4 | 4 | Low | Supervisors Foreman, Site Eng. |
| 6 | Use of Ladder for Temporary services | Falling from height  Working on Uneven ground  Falling objects | Operatives/  Staff/ | 3 | 4 | 12 | Medium | 1. **‘A’ Frame ladder not allowed except where there is no other option due to narrow access**. 2. Only light work, off short duration and work in which the operative can maintain secure hand and foot hold can be undertaken form a ladder 3. Never try to overreach with any ladders 4. Check the ladder is of suitable quality for industrial use and is in good condition 5. Maintain a minimum of 3 points of contact with stepladders at all times (feet/thighs/hands) 6. If possible avoid the use of stepladders at a working height of 2 meters and more. 7. Check the ladder legs (and stays) are fully deployed or locked (depending on type) to maintain maximum base dimensions and the step ladder is orientated to provide maximum stability. 8. Stepladders/ladders has to be used on leveled ground/firm base 9. Ensure that during using ladder from the top 2 steps is blocked to avoid climb on that. 10. The ladder securely fixed to prevent slipping outwards or sideways or securely footed at all times. 11. Person must hold the ladder while another operative working on it 12. 8) Materials should not be placed above the thread of ladders/step ladders 13. Do not carry any materials in one hand while climbing or getting down from ladder 14. Ensure the area under the ladder is barricaded especially if it is being used in a public area.   Ensure the ladder is electrical insulated podium type if working in live services | 1 | 4 | 4 | Low | Supervisor Site Eng.  Foreman, |
| 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| 8 | Use of Glue Solvent, (Hazardous Substance) | * Spillage/ soil contamination * Burns * Contact with skin * Acute/Chronic adverse heath effect. * Fire | Operatives using solvent | 3 | 4 | 12 | Medium | 1. Ensure that all chemical substances have a COSHH assessment 2. Refer SDS prior to any handling of hazardous substances and ensure SDS is easily accessible at site while working with chemicals. 3. Ensure chemicals are properly stacked. 4. Ensure all chemical containers are properly labeled. 5. Spill kits to be available at site. 6. Ensure operatives use the correct PPE 7. Competent person to oversee the storage, use and disposal of hazardous materials. 8. Ensure that correct welfare/first aid facilities are available in the area i.e. washing facility/eye wash. 9. Proper and adequate PPE to be used always 10. Ensure all chemical containers are properly labeled. 11. Adjust work schedules so that workers are not overexposed to a hazardous chemical. 12. Wear respiratory protection 13. Ensure proper and adequate PPE to be used always. 14. Ensure smoking only in designated area 15. Ensure appropriate Firefighting equipment’s are in place and easily accessible | 1 | 4 | 4 | Low | Supervisors Foreman,  SiteEng. |

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| 9 | Use of power tools such as Grinder/Cutter & Drill machine/Heat gun/PPR Welding | * Damaged Sockets & cable insulation. * Electrocution * Electric shock * Short circuit & Burns * Trip/Fall * Noise * Hearing loss * Vibration * Dust | Operatives and staff | 3 | 4 | 12 | Medium | 1. All portable electrical equipment must be PAT tested and color coded. Make sure the test dates are visible on the equipment. 2. Ensure all disk shall be appropriate and expiry date is over. 3. Ensure all power tools are in good condition and appropriately maintained 4. PTW to be obtained, prior to commencing the task 5. Damaged industrial sockets and power cables must be removed. 6. Ensure the electrical cable is not damaged and has not been repaired with insulating tape or unsuitable connectors. 7. Ensure cables from power tools shall be organized so as not to present a tripping hazard 8. Only trained competent operatives to operate the power tools. 9. Ensure proper and regular maintenance of equipment that takes account of noise 10. Ensure proper hearing protection always. 11. Make sure people use the right tool for the job and are trained to use it correctly 12. Ensure defective tools that require maintenance is reported for repair or replacement. 13. Instruct workers to keep their hands warm and dry, and to not grip a vibrating tool too tightly. 14. Hot work permit should have obtained if using heat gun and for PPR welding 15. Fire extinguisher and fire blanket must be available with fire watcher during hot work. 16. Ensure proper earth leakage protection is provided.   17. power tools must be 110V. | 1 | 4 | 4 | Low | Supervisor  Foreman  Site Eng. |
| 10 | Covid 19 | Cough  Sneezing  Fever (fever as body  temperature higher  than 38°C  Headache  Nasal Discharge | All employees | 4 | 4 | 16 | High | 1. Supervisors to give TBT ensuring small group of people maintaining 2meter distance between individuals. 2. Operatives musts try to perform their duties maintaining some at least 2meter distance from each other wherever possible. 3. Appropriate personal hygiene posters to be displayed on notice boards at workplace. 4. Maintain high standards of hygiene. 5. Intensive routine sanitation/disinfection of Offices, desks, chairs, laptop/desktop keyboards, dining tables, drinking water stations, toilets, door handles, pantry, visitor PPE’s. meeting tables to be disinfect after each use. 6. Disinfection of site offices, Welfare areas and work areas to be carried out 7. Temperature monitoring of employees/visitors on site arrival by using infrared thermometer, person with above 38O temperature will refuse to access site or offices. 8. Avoid close contact with anyone showing symptoms of respiratory illness, maintain social distance on 2meter. 9. Wash hands often with soap and water for at least 20 seconds, follow the displayed poster at washbasins. 10. Use hand sanitizer if soap and water are not available, sanitizer dispensers installed at AKS site: Security post, operatives dining area and Office reception, Sub Contractors room and meeting room. 11. Cover your mouth and nose with a tissue or your sleeve (not your hands) when coughing or sneezing. Put used tissues in the bin immediately. 12. Avoid touching your eyes, nose or mouth without washing your hands 13. Take enough rest and take a large amount of fluids.   If you have Cough, Shortness   1. If you have Cough, Shortness Breath, Fever, Sore Throat, headache seek medical care early and stay at home. 2. Avoid spiting at workplace/site. 3. Do not travel while sick. 4. In the event that any medical support or inquiry is required, please contact:    1. “Estijaba" service at the operation center – Department of Health at 8001717    2. Ministry of Health & Prevention at 80011111    3. SEHA 80050    4. Abu Dhabi COVID Emergency helpline +971563713090   McLaren Incident reporting protocol to be followed | 1 | 4 | 4 | Low | Supervisor  Construction Operatives |
| 11 | Adverse weather condition | Rain,  Sand Storm  Fog  Slippery surface  Risk of electrocution  Flying debris,  Slip, Tripping and fall | All employee, visitors | 4 | 4 | 16 | High | 1 Weather report must be updated and informed to work force if there is any prediction about adverse weather.  2 No activity shall be allowed during adverse weather condition on site  3 Protect the Power tools/DB from rain water to avoid short circuit.  4 Ensure during adverse weather or Foggy weather no lifting operation and no vehicle movement.  5 After clear the weather make sure all power tools are safe to use.  6 No work at height during high wind and rain  7 In case of emergency, call McLaren/Emergency number | 1 | 4 | 4 | Low | Site Eng.  Sup  Foreman |
| 12 | Use of Hand tools | * Improper selection of hand tools. * Damaged and Defective Hand tools. * Hand injuries * Pinch point * Ergonomics * Repetitive strain injury | Operatives/Staff | 3 | 3 | 9 | Medium | 1. Hand tools should be visually inspectedfor defects, prior to use. 2. Never use damaged, blunt or broken tools to avoid injury. 3. Select right tools for right Job 4. Ensure no Homemade or makeshift tools to be used at site 5. Remove from service any tool that shows signs of damage or defect 6. Ensure Hand tools are Stored in accordance with the manufacturer’s instructions. 7. Ensure hands are not in direct line of fire while working with hand tools 8. Ensure appropriate PPE at all times**.** | 1 | 3 | 3 | Low | Site Eng.  Supervisor  Foreman |

Approved By: Name Vishnu Mohan Position \_\_\_PM\_\_\_\_\_\_ Signature \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

**RISK ASSESSMENT & CONTROL GUIDELINES**

1. **Executing Steps:**
   1. **Planning**
2. Construction and HSE team must ensure that hazard identification is complete.
3. Construction and HSE team must prioritize the hazard issues, which are of significant in nature. (It means that risks have well established legal requirements, potentially high risks).
4. Construction and HSE team to prepare the risk assessment plan for the priorities identified hazards for these potential high risks.
   1. **Risk Assessment**

Risk is the probability of an event occurring in a given set of circumstances. The ‘event’ is an exposure to hazard. The hazard is the potential to cause harm. The risk assessment is the technique of evaluating not just the likelihood of an event occurring, but also the outcome will be in terms of injury, loss, damage or harm.

* 1. **Risk Assessment Process**

The process of carrying out a risk assessment should be as follows.

1. Identify the hazards.
2. Identify who might be harmed and how.
3. Evaluate the risk and implement the control measures.
4. Record the significant findings.
5. Review the assessment and update if necessary.
   1. **Examination of the Hazards and Risk Associated**

* Competent staff must be used in examining the risk associated with the identified hazard.
* Competent staff should examine following aspect to determine the risk involved:
* Examine the existing control measures in place.
* Identify employees at risk.
* Likelihood of risk.
* Severity
* Risk level and their tolerability.
  1. **Evaluating the risk:**

Once the necessary information has been obtained on the hazards encountered by work activities, next stage is to access the risks.

* + 1. **Risk Rating Score**

Risk rating score is a combination of two factors.

* The severity of the risk that could injure persons or cause damage to plant.
* The likelihood of the risk that it could happen (Probability).

**RISK RATING = LIKELIHOOD X SEVERITY**

**NOTE: Each activity has to be assessed for the risk value for determining the level of Severity and likelihood are mentioned in the table below.**

**SEVERITY**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **No Injury (1)** | **Minor Injury (2)** | **Moderate Injury (3)** | **Major Injury (4)** | **Catastrophic (5)** |
| **Rarely (1)** | **1** | **2** | **3** | **4** | **5** |
| **Unlikely (2)** | **2** | **4** | **6** | **8** | **10** |
| **Possible (3)** | **3** | **6** | **9** | **12** | **15** |
| **Likely (4)** | **4** | **8** | **12** | **16** | **20** |
| **Almost Certain (5)** | **5** | **10** | **15** | **20** | **25** |

**LIKELIHOOD**

**RISK LEVEL:**

|  |  |  |
| --- | --- | --- |
| **Low** | **Medium** | **High** |