| **Task (Steps)** | **Potential Hazard** | | **Who might be affected** | | **Existing Control** | | **Responsible person** | | **Current Risk** | | | | | | **Additional Control** | **Responsible person** | | | **Final Risk** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Con** | | | **Prob** | | **Risk** | **Cons** | **Prob** | | **Risk** |
|  | |  | |  | |  | |  | |  |  | |  | | | |  |  | | |  | |
| **Use of grinder for cutting threaded rod** | * Disc breaking * flying off sparks * Fire * Shock * Electrocution * Lack of supervision      * Lack of awareness | | Workers supervisor | | * Follow Manual Handling Procedure. * Follow Hot work Permit Procedure. * Carry out periodical inspection for machine, disc, extension cables and connections. * Don’t use the machine without safe guard. * Wear face shield and safety glasses, leather gloves, safety shoes, clothing and safety helmet. * Grinding wheels stored on hangers. * Do not place machine down before the rotation stops. * Fire extinguisher is in vicinity. * Remove all flammable materials from the working area. * Maintain follow-up check to site - one hour after hot work stops. * Barricade the work area * Stick the Permit at work area * Ensure the maximum speed (RPM) marked on the attachment is higher than the maximum speed of the angle grinder * Grinder wheel rpm should maintained as per manusafcturer instruction | | Supervisors/ Employees | | 5 | | | 3 | | 15 | * Ensure follow the correct cutting procedure * Follow supervisors instructions * Follow the main contractor safety advisors /engineer instruction * Main contractor permit to work system shall be obtained and followed. * Ensure PTW system is following * PAT will done by store keeper(Competent Person) under the supervision of Electrical Engineer * Monthly inspection should be done and put colour(white) code * Ensure guards are fitted securely in the correct position before use and are resistant to bending and twisting. * Ensure operators do not apply pressure to the angle grinder during use. * Ensure operators are provided with training and supervision on the safe and correct use of angle grinders. * Ensure operators demonstrate competency in performing the task safely. | Supervisor/ Engineer/  Workers | | | 3 | 2 | | 6 |
| **Use of electrical power tools** | * Electric Shock * Flying particles * Eye injuries * Noise * Fire * Un inspected tools * Lack of PPEs * Havs(Hand Arm Vibration Syndrome) | | Operatives property | | * Pre use inspection of the tool and electric cables shall be carried out by the operative. * Double insulated tools shall be used to prevent electric shock. * Cable management shall be carried out to prevent slips, trips and falls. * Power supply to be cut off while repairs or changing grinding blades. * All combustibles materials to be moved from the area or should be covered with fire blankets. * Ear defenders shall be provided to the operatives for hearing protection. * Serviceable, inspected fire extinguisher to be kept near the working area. * All tools and equipment’s shall be inspected and color coded by competent person. * Adequate PPEs like face shields and eye protection shall be worn by the workers for the task in area. * Permit to work system shall be followed and strictly enforced. * Do not work continues 10 minutes | | Supervisors/ Employees | | 4 | | | 3 | | 12 | * Safe Use of power tools training shall be arranged for the operatives. * All power tools to be 110v. * Power supply to be taken through ELCB only. * Main contactors instruction to be followed. * PAT will done by store keeper(Competent Person) under the supervision of Electrical Engineer | Supervisor/ Engineer/  Workers/ Safety | | | 4 | 2 | | 8 |
| **Manual handling of HVAC Ducts and accessories** | * Back Injuries * Sprains * Strains * Hernias * Slips and Trips * Work related upper limbs disorder * Cuts injuries * Lack of PPEs * Ergonomics hazards | | Operatives, property | | * Maximum 20 kg will load manually during work * SWL system will follow * Safe Manual handling methods shall be adopted by keeping the back straight and knees bended to prevent back injuries. * Lifting of heavy load should be avoided and shall be lifted by mechanical means or by team lift. * Area shall be kept clean and tidy to prevent slips and falls. * Adequate personnel protective equipment’s to be worn by the operatives to prevent cuts injuries caused by sharp edges. * Job rotation or sufficient breaks shall be given to the workers. * Tool box talks to be conducted by the concerned supervisor prior the task. * Provision of cool drinking water in the area to be ensured. | | Supervisor/ Engineer/  Workers | | 5 | | | 3 | | 15 | * Safety Precautions with the workforce to be discussed by the supervisor. * Supervision to monitor the task. * Manual Handling training to the operatives shall be delivered. * TBT conducted to workers about SWL, ergonomics hazards. | Supervisor/ Engineer/  Workers | | | 4 | 2 | | 8 |
| **Working above MEWP** | * Falling men * Falling objects and materials * Equipment failure * Un slope ground condition * Weather condition * Roofing condition | | Workers  Supervisor  Nearby workers | | * Equipment should certified by 3rd party * Area should be barricaded * Work with the presence of Banks men * Operator should be certified by 3rd party * Give tool box talk before starting the work * Keep fire extinguisher on the platform of MEWP * Use safety harness * Follow main contractor PTW System * Follow the checklist provided by main contractor * Close supervision of work * Activivty will stop when the wind speed exceed more than 20 knot. | | Worker/operator  Supervisor  engineer | | 5 | | | 5 | | 25 | * Engineer ensure the supervisor is following PTW system * Proper traffic management system * Operator cross check the equipment regularly * Moniter the weather condition | Supervisor/ Engineer/  Workers | | | 4 | 2 | | 8 |
| **Working at height using**  **Scaffolding & Ladder** | Fall from Height.  Erecting scaffolding  Scaffolding collapse  Falling materials  Un inspected ladders | | Worker/ co-workers  Supervisor | | * All scaffolding material to be of sound materials.Training and tool box talk to be conducted regarding working at heights. * Only trained scaffolders to be used on the job.Use approproate PPE, including inspected fullbody harness to be used.Harness should be hooked in a safe anchor point. * Scaffoding inspection to be conducted. * .Scaff tag system to be followed. * Scaffolding should be inspected by certified person. * Tool box talk Training to workers prior to start work about ladder use. * Ladder must be installed on firm & level footing. * Leveling device to be used if required. * Straight ladder to be tied on top, * Do not use the top two steps. * During working on ladder one person should hold the ladder * Always face the ladder and hold on with both hands when climbing up or down. Monthly inspection of ladders to be conducted, * Tool Box talk training to be conducted. | | Supervisors/ Employees/scaffolding inspector | | 5 | | | 4 | | 20 | * Ladder must be installed on firm & level footing. * Leveling device to be used if required. * Always face the ladder and hold on with both hands when climbing up or down.Ladder work is a two mens job,one to hold and support the ladder as the climbs up. * Monthly inspection of ladders to be conducted. | Supervisor/ Engineer/  Workers/hse officer | | | 3 | 2 | | 6 |
| **Use of Foster Sealant** | Inhalation  Suffocation  Eye injury  Allergy  Skin itches  Entering chemical to body  through skin absorption  Dermatitis  Asthma  Genetical disorders  Cancer | | Workers/co workers/nearby workers | | * Must follow the MSDS control measures * Use task ppe * Msds stick on site * Give tool box talk before starting the work * Use hand gloves during work. * Use medical surgical mask * Thorough wash during direct contact to body. * Use white safety gogles during work. * Use coverall * Barricade the work area with proper sign board. | | Workers/supervisors/foreman | | 4 | | | 4 | | 16 | * Ensure workers are wearing their Task PPE. * Arrangements of emergency evacuation. * Close monitoring * MSDS should documented * Follow main contractors PTW system * Avoid lone working * Arrangements for washing in case direct contact * Store the chemical designated area * Provision of PPE at Site store | Supervisor/store keeper | | | 3 | 3 | | 9 |

**Risk Matrix**

|  |  |  |
| --- | --- | --- |
| **Descriptor** | **Likely Frequency** | **Probability** |
| Frequent | Occurs frequently | 5 |
| Often | Occurs several times per year | 4 |
| Likely | Has occurred more than once | 3 |
| Possible | Has occurred | 2 |
| Rare | Never occurred | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Likelihood (From Table 2) | Consequence (From Table 1) | | | | |
| Insignificant (1) | Minor (2) | Moderate (3) | Major (4) | Catastrophic (5) |
| Rare (1) | 1 | 2 | 3 | 4 | 5 |
| Possible (2) | 2 | 4 | 6 | 8 | 10 |
| Likely (3) | 3 | 6 | 9 | 12 | 15 |
| Often (4) | 4 | 8 | 12 | 16 | 20 |
| Frequent/ Almost Certain (5) | 5 | 10 | 15 | 20 | 25 |
| 15 - 25 | Extreme Risk | Activity or industry should not proceed in current form. | | | |
| 8 - 12 | High Risk | Activity or industry should be modified to include remedial planning and action and be subject to detailed OSH assessment. | | | |
| 4 - 6 | Moderate Risk | Activity or industry can operate subject to management and /or modification. | | | |
| 1 - 3 | Low Risk | No immediate action required, unless escalation of risk is possible. | | | |

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| --- | --- | --- | --- | --- | --- |
| RISK ASSESSMENT ORIENTATION ATTENDEES | | | | | |
| Name | | Date | Designation | Comments | Signature |
| 1 | Shajin Sayed |  | HSE officer |  |  |
| 2 | Abdul Rahman |  | MEP Coordinator |  |  |
| RISK ASSESSORS | | | | | |
| Name | | Date | Designation | Comments | Signature |
| 1 | Shajin Sayed |  | HSE officer |  |  |
| 2 |  |  |  |  |  |