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| **S.N.** | **ACTIVITY** | **HAZARD** | **CAUSES OF HAZARD** | **CONSEQUENCES/ IMPACT** | **RISK EVALUATION** | | **RISK LEVEL** | **IMPLEMENTED CONTROL MEASURES** | **RESIDUAL RISK** | | | **ACCEPT Y/N?** |
| **P** | **S** | **H/M/L** | **P** | **S** | **H/M/L** |
| **1** | Mobilization and Delivery of Materials, tools and equipments at site. | Risk of dropping the equipments. | Improper handling | Injury of workers and Delay of work. | 2 | 3 | 6 | Need to make sure that laborers have enough rest in order for them to focus on what they are doing. | 1 | 2 | 2 | Y |
| **2** | Verification and barricading of affected area, preparation for execution of work. | Materials use for Barricading might collapse. | Loosely secured  Improper handling | Injury of workers and Delay of work. | 3 | 3 | 9 | Make sure that all measurements are balanced and all barricading materials have good quality. | 1 | 2 | 2 | Y |
| **3** | Preparation for Installation of Curtain walls, using portable power tools (Drill Machine, Cutting Machine, Knife, Chisel, and Tighter machine. | Might get cut or scratched by the said machines. | Lack of focus and concentration on what they’re doing.  Untrained personnel | Injury of workers and Delay of work. | 2 | 3 | 6 | Need to make sure that labourers have enough rest in order for them to focus on what they are doing. | 1 | 1 | 1 | Y |
| **4** | Preparation for Installation of Alum Frames/Glass by erection of mobile scaffoldings, ladder, if required (in working in high places). | Scaffoldings might fall or might not be balanced. | Screws are not tightened and locks are not properly locked. | Injures of workers and delay of work. | 3 | 3 | 9 | Make sure that all screws are tightened and the scaffoldings are not moving before standing on the platforms. | 1 | 2 | 2 | Y |
| **5** | Installation of Aluminum Frames | Danger of falling materials | Improper handling of materials during installation | Injuries to personnel and damage | 2 | 3 | 6 | 1. Ensure that the materials are inclined to inside white at first fixing 2. Ensure that the materials are wrapped as possible can 3. Ensure that the labors are holding the materials very well during installation | 1 | 1 | 1 | Y |
| **6** | Installation of Aluminum Frames | Danger of not fixing the materials properly | Not following the proper installation procedure of frames | Injuries to personnel | 1 | 3 | 3 | 1. Ensure that materials are installed as per the drawings | 1 | 1 | 1 | Y |
| **7** | Installation of Glass | Danger of falling materials | 1. Improper handling of materials during installation 2. Defective glass sucker | Injuries to personnel and damage/breakage of materials | 2 | 3 | 6 | 1. Ensure that the glass sucker is working properly before use 2. Ensure that the labors are holding the glass very well while installation 3. Ensure that the glass are installed very well before removing the glass sucker | 1 | 2 | 2 | Y |
| **8** | Installation of Glass | Erection &Dismantling of Scaffolding | Screws are not tightened and locks are not properly locked | Injures of workers and delay of work | 3 | 3 | 9 | Make sure that all screws are tightened and the scaffoldings are not moving before standing on the platforms. | 1 | 2 | 2 | y |
| **9** | Installation of Glass | Danger of not fixing the materials properly | Not following the proper installation procedure of glass | Injuries to personnel and damage/breakage of materials | 1 | 3 | 3 | 1. Ensure that glass are installed as per the drawings | 1 | 1 | 1 | Y |
| **10** | Installation of Glass | House keeping | scrap glass materials | Injures of workers and delay of work | 3 | 3 | 9 | Make sure that all glass pieces are properly cleaned from the work area and keep the broken glass separately. | 1 | 2 | 2 | y |

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| Persons in danger |
| * Workers undertaking the work |
| * Persons passing the site location/ truck routes, e.g. members of the public and persons in the Vehicles. |
| Personal protective equipment |
| * Safety Helmet, Gum Boot, Proper Gloves & Safety Goggles |
| Information, instruction and training |
| * All personnel in the team are to be made aware of the safe systems of work. |
| * Ensure that good housekeeping standard is maintained throughout. * Training and experience for personnel to use electrical equipments and vibratory equipments. * Educate the personnel to handle chemicals such as concrete… |
| Emergency procedures |
| * Site emergency procedures should make provision for the rescue of individuals from heights. |
| * First-aid facilities should be available to cope with any significant injuries that may arise from the work. |
| Monitoring and review |
| * Work should be monitored by Foreman and charge hand who are trained to ensure that any additional precautions or equipment required are provided. |

**RISK ASSESSMENT COMMITTEE**: Project Manager/ Project Engineer

Safety Manager/ Safety Officer

**Reviewed by:** (Safety Officer) **Approved by:** (Project Manager)

**RISK MATRIX**

**Risk Rating (RR) – Severity x Likelihood**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **LIKELIHOOD**  **(PROBABILITY)**  **(P)**  **SEVERITY**  **(IMPACT)**  **(S)** | | **Rare**  Remote possibility (once every 3 years or more)  **1** | **Unlikely**  Could happen but rare (typically once in a year)  **2** | **Possible**  Could happen occasionally (on average quarterly)  **3** | **Likely**  Could happen often (on average once a month or more)  **4** | **Almost certain**  Could happen frequently (once a week or more)  **5** |
| **Insignificant** | **1** | **Low**  **1** | **Low**  **2** | **Low**  **3** | **Low**  **4** | **Medium**  **5** |
| **Minor** | **2** | **Low**  **2** | **Low**  **4** | **Medium**  **6** | **Medium**  **8** | **Medium**  **10** |
| **Moderate** | **3** | **Low**  **3** | **Medium**  **6** | **Medium**  **9** | **Medium**  **12** | **High**  **15** |
| **Significant** | **4** | **Low**  **4** | **Medium**  **8** | **Medium**  **12** | **High**  **16** | **High**  **20** |
| **Major** | **5** | **Medium**  **5** | **Medium**  **10** | **High**  **15** | **High**  **20** | **High**  **25** |

**RISK BASED CONTROL PLAN**

|  |  |
| --- | --- |
| **RISK LEVEL** | **ACTION AND TIMESCALE** |
| **1-4**  **Low** | Quick, easy controls should be implemented immediately and further action planned for when resources permit. Monitoring required ensuring controls are maintained. Manage through routine procedures. Go for economic improvements where possible. Incident report must be completed. |
| **5-12**  **Medium** | Aim to reduce risks but costs of prevention may be limited. Undertake a risk assessment of the situation / task and implement the appropriate actions. Actions should have a timescale and should be monitored. Where the risk involves work in progress undertake a risk assessment as soon as possible to ensure the safety of the situation or task. **Work should not start until the risk is reduced to an acceptable level.** Considerable resources may have to be allocated. Contact your Manager and Risk Manager by telephone about the actions that should be taken to reduce the risk/s. incident report must be completed. Incident must be added to service risk register. |
| **15-25**  **High** | **Do not commence the activity until** a risk assessment has been completed to ensure the safety of the situation or task. If it is not possible to reduce or eliminate the risk even with unlimited resources, work must remain prohibited. Inform your relevant Director, your Manager and the Risk Manager immediately by telephone. Incident report must be completed. Incident must be added to service risk register. |