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| Logo | Scaffolding Erection & Dismantling | | Doc Ref #: XYZ/IMS/QHSE/F/00 Issue Date: DD-MM-YYYY Rev #: 00 Page 1 of 5 |
| | Job Safety Analysis | | |
| | Organization Name | | |

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|------------------|--|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| JSA Ref # | | Project Ref # | | | | |
| Location | | Work Area | | Site Name | | |
| Equipment | | Required Permit | 1st Week | 2nd Week | 3rd Week | 4th Week |
| PPEs | | | Permit Date | | | |

Note: Any change to the work activity, location, as well as in the Job Safety Analysis will be subject to the top management approval, and Job Safety Analysis will be updated, and communicated to all of the workers for adoption and implementation.

| S/# | Activity Sequence | Relevant Potential Hazards | Control Measures |
|-----|-------------------|--|---|
| 1 | Pre-work | <ul style="list-style-type: none"> ● Untrained personnel usage for work activity. ● Blockage of the entry/exit, and emergency exits. ● Non-compliance of the organization HSEMS & legal requirements. ● Unauthorized scaffolding erection & removal. | <ul style="list-style-type: none"> ● Hire trained, skilled, experienced workers/scaffolders to erect and dismantle the scaffolding. ● Worker's certificates should be received, reviewed and available onsite. ● Ensure the Job Safety Analysis is communicated to every worker. ● The workers are well informed thoroughly, briefed, about the; <ul style="list-style-type: none"> ○ The work activity ○ Equipment and tools involved in the activity ○ Work area where work is to be performed ○ Potential hazards and corresponding risks ● Ensure conducting the Toolbox Talks before start of the job. ● Provide the clear entrance and exit points. ● All of the entrance and exits shall be well illuminated, labelled, and cleared all the time. ● Obtain the necessary PTW for the work commencement. |

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| | | | <ul style="list-style-type: none"> ● Workers should be instructed to comply with the HSEMS procedures, hazard controls, and precautions. ● Safe System of Work (SSW) should be implemented to ensure effective work execution, and strong communication to prevent any incident due to poor work procedure or lack of communication. ● Ensure worksite is provided with emergency equipment & first aid kit. ● Emergency Response Plan should be communicated & implemented. ● All of the workers are liable to comply with the safety requirements of the organization as described in the work procedure. ● Scaffolding parts should be lifted and shifted using the mechanical equipment e.g., crane, hoist, etc. ● Workplace around the scaffolding erection/dismantling area should be barricaded and secured to prevent unauthorized entry. ● Workers should be provided with the PPEs and Fall Arrest System. ● Maintain at least 10ft distance from the overhead power lines. ● Electrical poles that are to be placed on the scaffolding should be earthed, and fitted with residual current devices. ● The proper lighting arrangement should be made at worksite. |
| 2 | Transportation of scaffolding material | <ul style="list-style-type: none"> ● Material drop from lorry/ vehicle during transportation. ● Road accident during transportation resulting in physical injury to the worker, and property damage. | <ul style="list-style-type: none"> ● The load/ material should be loaded and secured properly on the vehicle under supervision of the competent person. ● Use proper accessories to fasten and secure the material properly. ● Ensure the correct vehicle is used for the transportation. ● Use blocks to keep the load/rolling pipes secured, place on both sides. ● Ensure the oversizing, protruding, & overloading is prevented. ● use the correct route to transport the material to worksite. ● No one is allowed to sit on the load during transportation. ● Employee valid license holder driver with experience. |

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| | | | <ul style="list-style-type: none"> Speed limits should be followed, and drive on the heavy vehicle lane. |
| 3 | Scaffolding Poles manual handling Loading/unloading | Worker injury | <ul style="list-style-type: none"> Avoid working with the poles loading/unloading. Use mechanical aid to lift and drop the scaffolding poles. Use team lifting techniques when lifting equipment use is not possible at worksite. Use PPEs when handling the poles manually, when lifting equipment use is not possible. Don't lift heavy objects specially when standing at edge of lorry etc. |
| 4 | Hand Tools Usage | <ul style="list-style-type: none"> Defective tools Misuse of the tools Hand injury if incompetent person uses it | <ul style="list-style-type: none"> Ensure all of the tools are safe, well inspected, and maintained by the competent people. All tools should be inspected before use, color coded, and handled carefully. Defective tools should be removed from the site and replacement should be available. Don't use the tools for irrelevant job e.g., knife for opening screws. Don't introduce the home-made tools at the worksite for job activity. Only trained and skilled person should use it. After job, clean the tool and place at the right place. |
| 5 | Scaffolding Construction Erection & Dismantling Activity | <ul style="list-style-type: none"> Damage to scaffolding during handling. Scaffolding construction on uneven surface. Improper scaffolding construction Falling from height Fall object hazard Physical injury due to slip/trip/ fall activity. Physical injury due to manual handling. | <ul style="list-style-type: none"> Use proper lifting equipment to handle the scaffolding equipment. Tie the scaffolding parts to the lifting equipment properly using correct lifting accessories. Place the scaffolding on the flat/even/ plain surface. Ensure the scaffolding is placed on the firm ground, and base plates are used to spread the weight of the scaffolding over large area. Ensure the outriggers are used to push the scaffolding against the structure. |

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| | | <ul style="list-style-type: none"> Working environment effects due to working in extreme conditions. | <ul style="list-style-type: none"> Ensure the scaffolding is tied to the structure properly for safety. Code the scaffolding parts and use them in a sequence to ensure proper construction of the scaffolding. Work at the height should be subject to PTW. Hire properly trained, and skilled workers to construct the scaffolding and working at height. Use personal fall arrest system/ harness when working at the height. The scaffolding should be installed with the toe boards to prevent the rolling objects falling from height. The gap between two planks of scaffolding should be covered properly. Area around the scaffolding construction should be barricaded and safety signs should be posted to alert others. Ensure the planks/surface of the scaffolding walkways is clear of spillage/ slippery surface. Remove the objects/ tools from the scaffolding walkways. Handle the scaffolding parts using proper lifting equipment and accessories. Use PPEs when handling the scaffolding parts when lifting equipment usage is not possible somehow. Stop the job during extreme conditions, e.g., working in hot weather, or cold weather or even during high winds and rain. |
| 6 | Handover to work team | <ul style="list-style-type: none"> Injury/ accident due to incomplete/ improper/ or loosely constructed scaffolding. | <ul style="list-style-type: none"> Ensure the scaffolding is constructed by the competent workers with relevant certification, and experience. Scaffolding Inspector must inspect the scaffolding with Scaffolding Construction Team leader and ensure it is built as per the standard. |

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| 7 | Housekeeping | <ul style="list-style-type: none"> Poor housekeeping & scattered objects/debris leading to slip and fall resulting in injuries. | <ul style="list-style-type: none"> Poorly constructed parts or damaged parts should be replaced immediately with new parts. Ladder shall be installed for safe and easy entry and exit purpose. Ensure the worksurface of the scaffolding is clean, free of spillage and uneven flooring. Any spillage on walkway is cleaned and uneven flooring is replaced immediately. Inspect the scaffolding on daily basis and specially before start of the job. Remove the debris or extra material from the scaffolding when erection has been completed. |

| Scaffolding Erection Team Leader | Scaffolding Inspector | Safety Officer | Permit Issuer |
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| Name: Company: Designation: Signatures: | Name: Company: Designation: Signatures: | Name: Company: Designation: Signatures: | Name: Company: Designation: Signatures: |