Systemic Safety Alert
Lift Works

Most accidents related to lift works were attributed to the absence of a safe system of work and slack on-site control. Common types of accidents are fall of person from height, struck by falling object, struck or trapped by moving parts of the lift system and fire, etc.

Major systemic safety problems

Proprietors/employers are required to adopt effective preventive measures and make necessary arrangements to ensure the safety and health at work of employees/workers engaged in lift works. Major systemic safety deficiencies include:

- failure to conduct task-specific risk assessments and to formulate method statements, clearly specifying the safe working procedures and sequence of work for the lift works;
- failure to develop and fully implement effective a permit-to-work system as necessary;
- failure to properly communicate necessary safety information and instructions, including the potential hazards and their corresponding risk control measures, through specific safety training to workers/employees;
- slack control and monitoring to ensure conformity with the method statements;
- failure to formulate and/or implement an effective checking system for timely detection and prompt rectification of any irregularities in the work process; and
- lack of clear delineation of safety responsibilities and effective coordination and communication among the principal contractor, lift contractor, subcontractors, and any personnel involved in the work activities.

Accident prevention measures

RSOs should advise their employers/clients to:-

- appoint a competent person to conduct task-specific risk assessments to identify all potential hazards associated with the lift works, taking into account the type of works to be carried out, the working conditions of the lift shaft and the personnel undertaking the tasks;
- formulate detailed method statements specifying the sequence of work for the lift works with appropriate safe working procedures and safety

precautions/measures based on the results of the risk assessments, complying with relevant codes of practice, industry guidelines, international standards, and in conformity with the lift manufacturer's specifications/instructions;

- develop and fully implement a permit-to-work system to ensure that all necessary safety precautions/measures against associated risks of lift works, including striking and trapping, fall from height, falling objects and fire, should have been taken before commencement of any kind of lift works and remain to be effective. Among others, the following safety precautions/measures should be strictly adhered to:

    a) General safety precautions/measures for lift works:
        - the lift should be rendered inoperative and locked out before carrying out any works, including inspection, cleaning, oiling or lubrication of wire ropes and moving parts;
        - suitable scaffolds with proper working platforms should be provided and used for working-at-height while personal protection equipment should be regarded as a last resort to prevent falling from height;
        - safe access to and egress from every place of work should be provided and properly maintained;
        - safe working procedures for electric arc welding and hot work process should be developed and implemented;
        - effective preventive measures should be taken to avoid incompatible work processes being carried out simultaneously;
        - safety precautions should be taken to prevent sparks generated during hot work or electric arc welding process from falling into combustible materials; and sufficient and suitable firefighting facilities should be provided in the close vicinity of place of work;
        - all openings to a lift shaft should be fenced off and no building materials should be stored in front of them;
        - loads under lifting inside the lift shaft should be securely rigged and fastened; and no lift worker should be allowed to stay or work below the suspended load;
        - suitable personal protective equipment such as safety helmets with chin straps, should be provide and used by working personnel during the lift works;
        - effective communication equipment should be provided and used by working personnel during the lift works; and key words/signals for clarity of use should be specified during communication process;
        - suitable and sufficient safety signs/warning notices should be

displayed in prominent positions to alert all workers involved of the essential safety information;

- rescue procedures and evacuation arrangements in case of accident or other emergency situations during the lift works should be devised and maintained; and

b) Lift landing door or car door work:
   - the entrance of the landing door or car door of a lift should be suitably blocked by a barrier; and
   - the automatic doors of a lift should be prevented from accidental opening;

c) Working within a lift shaft:
   - the number of persons working within a lift shaft at the same time should be kept to a minimum and simultaneous working at two different levels inside the lift shaft should be avoided as far as practicable;
   - the safety devices in the lift shaft including the lift pit and the car top control station should be functioning properly;
   - working conditions, including temperature, ventilation, etc., should be confirmed to be suitable before the work commences;
   - adequate lighting should be provided;
   - the pit-stop switch should be activated to prevent any unauthorized movement of the lift car before allowing workers to enter into the lift pit;
   - counterweight screen of an appropriate height above the pit floor should be properly installed to avoid hazards created by descending counterweight; and
   - direct and effective communication between lift worker(s) staying in the lift shaft and lift worker(s), if any, on the lift car top should be ascertained before the lift car is allowed to be in motion;

d) Working on the car top of a lift car:
   - necessary safety device, e.g. inspection/operation switch lock, should be properly provided and used to ensure the safety of worker(s) working on the lift car top; and
   - one and only one person should be appointed to take the sole control of the car movement when worker(s) are/is working on the car top.

- liaise with relevant parties to prepare a lift works safety plan with details on the

risk assessments and method statements, and safety precautions/measures to be adopted prior to the commencement of any lift works,

- ensure clear delineation of safety responsibilities and effective coordination and communication among the principal contractor, lift contractor, and subcontractors, project manager/engineer, design engineer, supervisor and any related personnel involved in the work activities for full implementation of the planned safe system of work ;
- ensure that the lift works is conducted safely under the direct supervision of a person who is competent by virtue of his substantial training and practical experience in relation to the lift works;
- ensure that only competent workers possessing adequate knowledge, skills and experience are employed to carry out the lift works;
- provide the workers involved with necessary safety information, instruction and training related to the lift works to ensure that they are familiar with the safe working procedures, safety precautions/measures, emergency procedures, and have fully understood their roles and responsibilities; and
- establish and implement an effective monitoring and control system to ensure that the devised safety precautions/measures are strictly followed.

RSAs should take into account these systemic issues in executing safety audit functions.

Labour Department
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