



Systemic Safety Alert **Demolition Work Safety**

Major systemic safety problems

Carrying out demolition work in an improper way would lead to fatal/ serious accidents. Workers involved in demolition work are at risk of being struck by collapsing/ falling objects detached from structures or of fall from unprotected edges/ openings in the course of demolition. Besides, outbreak of fire arising from hot work such as electric welding or flame cutting during demolition process would cause serious burnt of workers. The following are major systemic safety problems attributed to the occurrence of relevant accidents:

- failure to conduct task-specific risk assessments and formulate safe work methods in accordance with the risk assessments;
- failure to implement safe work methods and adopt necessary risk control measures for demolition work;
- failure to prevent any part of the structure or its adjoining structures from accidental detaching or collapsing during the work;
- failure to prohibit conducting hot work in an unsafe manner; and
- failure to provide adequate safety information, instruction, training and supervision.

Accident prevention measures

Registered Safety Officers (RSOs) should advise their employers/ clients to: -

- (i) appoint a competent person to conduct task-specific risk assessments to identify all potential hazards associated with demolition work, taking into account the nature of work, construction of the structures to be demolished and work environment, particularly where the structures and their adjacent structures/



objects may possibly collapse or the dangerous places from which workers are liable to fall;

- (ii) formulate safe work methods according to the risk assessments and adopt necessary control measures including the provision of safe working platforms/ means of support with suitable access and egress, planking, guard-rails and toe-boards for work-above-ground;
- (iii) take adequate steps to ensure the proper use of safety harnesses, anchor points, independent lifelines plus fall arresters and alike systems by workers throughout the work when the use of suitable safe working platforms/ means of support/ guard-rails and toe-boards/ coverings to floor openings is not practicable and after consideration of the particular hazards from places of work;
- (iv) convey debris through floor openings with suitable chutes, full enclosures or shafts of adequate strength as approved;
- (v) define designated areas on the site for conveying debris through floor openings;
- (vi) suspend handling of debris work from upper floors while removal of debris is being carried out at the designated areas of a floor;
- (vii) conduct demolition work from non-loadbearing structures then to loadbearing structures and do not cut/ remove load-supporting members until upper or supported loads have been removed;
- (viii) provide substantive supports to the structures to be demolished and their adjacent structures as necessary to prevent any parts of the structures or its adjacent structures from accidental detaching, collapsing or failure;



- (ix) ensure that no workers work, pass or stay underneath the structures and any parts thereof being demolished and adopting control measures with suitable warning notices displayed as far as reasonably practicable to prevent any unauthorized persons entering into the fenced-off area;
- (x) inspect continually work surfaces to detect hazards resulting from weakened or deteriorated floors, walls, or loosened structures. Careful planning and execution with full range of demolition techniques are required for the premature and uncontrolled collapse of structures or parts of structures and flying debris which can injure workers and passers-by;
- (xi) where demolition work is adjoining another site, make necessary arrangement amid the sites and ensure that suitable safety features such as hoardings, covered walkways, catch platforms are provided and properly maintained;
- (xii) move away all flammable/ combustible materials to a safe place away from the area with hot work. If the materials cannot be removed, take appropriate suitable measures, such as covering them with fire resistant materials;
- (xiii) provide and properly maintain fire-fighting equipment such as fire extinguishers, buckets of sand near the work area;
- (xiv) devise fire warning system, fire procedures and emergency response plan so that workers could safely evacuate from the workplace in case of fire;
- (xv) provide workers with the necessary safety information, instruction and training, and ensure that they are familiar with the safe working procedures and safety measures; and
- (xvi) exercise adequate monitoring and effective supervision to ensure all safety measures are strictly implemented, followed and maintained.



Registered Safety Auditors (RSAs) should take into account these systemic safety problems and accident prevention measures in executing safety audit functions.

DISCLAIMER

This Systemic Safety Alert is issued to draw the attention of interested parties to the relevant systemic safety problems and accident prevention measures necessary to protect people engaging in similar works activities. The material contained in this Alert constitutes general guidance only. It does not reduce, limit, or replace, any legal obligations upon any person to comply with any statutory duties under relevant legislation. Users such as Managers and Supervisors should make their own evaluation of the information contained in this Alert to determine if it can be applied to their own situations and practices. The Labour Department does NOT accept any responsibilities for any loss or damage resulting from the use of or failure to use the information contained herein.