



# Work Safety Alert Trapped by Collapsed Bamboo Scaffolds

## 1. Date of Accident : October 2021

2. Place of Accident : A Residential Estate Under Renovation

#### 3. Summary :

The double-row bamboo scaffolds erected at the external walls of some adjoining residential buildings under renovation suddenly collapsed while the amber rainstorm warning signal and strong wind signal no. 3 were in force. At that moment, a gang of workers was conducting foundation work of a lift at a lower level of the same estate. A female worker was trapped under the collapsed scaffolds and was certified dead in the hospital.

## 4. Work Safety Alert for Contractors/ Proprietors :

To prevent any workers/ employees from being endangered by collapse of bamboo scaffolds during adverse weather, contractors/ proprietors should provide and maintain a safe system of work which should include, but not limited to, the following:

- appointing a competent person to conduct task-specific risk assessments in identifying all potential hazards associated with all work on and near the scaffolds, taking into account the nature of work, the work environment and the impact to the scaffolds under inclement weather conditions;
- formulating safe work methods and procedures for the work with due regard to the results of the risk assessments, the requirements of relevant safety legislation, relevant codes of practice and guidelines to minimise the risks exposed to the workers/ employees;





- taking effective steps to ensure that all supports of the scaffolds are of adequate strength to hold the vertical and lateral loads imposed on the scaffolding. The construction of the scaffolds shall withstand the loading situations at all stages of the works without causing overstressing, instability, bulging, distortion, overturning, collapse, settlement or damage to any portion of the scaffolding;
- ensuring that scaffolds greater than 15m in height are designed and approved by a professional engineer;
- ensuring that when a scaffold is having a height greater than 7m:
  - Ties to fasten the scaffold securely at the building/structure façade are provided for every 4m or less rise and 7m or less apart horizontally;
  - A short length of bamboo of effective diameter not less than 40mm (acts as strut) is connected between the inner scaffold and the building facade to restrict any inward movement of the scaffold at every position of ties;
- where scaffolds are due for dismantling, ensuring the following measures have been taken prior to the scaffold dismantling work:
  - ensuring that the scaffolds to be dismantled are checked for their strength and stability beforehand;
  - ensuring that no components which endanger the stability of the remaining structure of scaffolds are removed unless necessary precautions have been taken with all the ties and bracings be remained secured in positions;
  - ensuring that if dismantling has reached the stage at which a critical member has to be removed, the stability of the structure is assured by fixing a similar or otherwise adequate member in place lower down before the member to be taken out is removed;
  - ensuring that dismantling sequence is planned and that sequence of





dismantling sections of the scaffolds is logical and determined with due consideration of the safety of the scaffolders and workers nearby;

- ensuring that the scaffolds especially their tying and bracing are inspected prior to dismantling as changes may have been made in any scaffold structures during their working life;
- when adverse weather conditions may affect the safety of the workplaces, ensuring the following measures have been made:
  - working out the reasonable and practical work arrangements in time of typhoon, rainstorm warnings, etc.;
  - avoiding, wherever possible, assigning workers/ employees to work in times of typhoon, rainstorm warnings, etc.;
  - assessing the associated risks to ensure that the risks at work are reduced as far as reasonably practicable where workers/ employees are required to work;
  - ensuring all scaffolds are secured and taut with all canvas removed;
- where any work is unavoidable to be carried out under adverse weather, ensuring the following measures have been made:
  - appointing an overseer to monitor changes in weather conditions likely to affect the safety of workers/ employees;
  - installing appropriate warning system to give workers/ employees real time warning to take appropriate measures;
  - providing safe shelters or structures that can protect workers/ employees from the adverse effects of strong wind, lightning and rainstorm;
  - suspending immediately all outdoor work in exposed areas where workers/ employees are liable to be endangered by the adverse





weather conditions such as rainstorm, thunderstorm and typhoon;

- providing all workers/ employees concerned with the necessary safety information, instruction and training, and ensuring that they are familiar with the safe work procedures and safety measures; and
- establishing and implementing an effective monitoring and control system to ensure that all safety measures are strictly followed.

#### 5. Reference :

- <u>Safe Systems of Work<sup>1</sup></u>
- Five Steps to Risk Assessment<sup>1</sup>
- Five Steps to Information, Instruction and Training<sup>1</sup>
- <u>Code of Practice for Bamboo Scaffolding Safety</u><sup>1</sup>
- Code of Practice in Times of Typhoons and Rainstorms<sup>1</sup>
- <u>Guide on Safety at Work in times of Inclement Weather</u><sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Click to view document





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This Work Safety Alert ("the Alert") is issued at the earliest possible opportunity after a serious accident with a view to drawing the attention of interested parties to the general safety precautionary measures necessary to protect people engaging in similar work activities. The material contained in the 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 the 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 of the information on the Alert.

Note: The material contained in the Alert is not exhaustive, and will be supplemented/ adjusted where necessary if more relevant information comes to light.