

CIC Safety Message No. 20/23

WORKERS WORKING IN WATER TANK SUFFERED FROM HYPOXIA AND ONE LOST CONSCIOUSNESS

On 28 July 2023, seven workers were suspected suffered from hypoxia while working in a water tank in a construction site at Kai Tak. All were rescued and sent to hospital for treatment, and one of them lost consciousness. The Construction Industry Council (CIC) would like to draw your attention to this safety message. It would be appreciated if you could distribute the message below to your fellow members, relevant personnel or other industry stakeholders where appropriate. Thank you very much.

Common Accidents

- 1. Inhalation of hazardous gas, fume, vapour or lack of oxygen, causing workers working in confined spaces to lose consciousness or suffocate.
- 2. No provision or not maintaining well ventilation for removal of gases or vapour heavier than air to ensure effective air circulation.
- 3. Loss of consciousness of workers at work due to an increase in body temperature, such as heat stroke.
- 4. The worker did not use approved respiratory equipment and other required personal protective equipment.

Critical Control Measures

- 1. Before working in a confined space, a competent person shall be appointed to carry out risk assessment and make recommendations. After issuance of permit-to-work certificate, only certified workers shall enter or work in confined spaces.
- 2. Before entering the confined space, ensure that the confined space has to be sufficiently cooled and ventilated, and effective measures are taken to prevent ingress or in-rush of hazardous gas, vapour, dust, fume or free flowing solid or liquid to the confined space.
- 3. Workers should use suitable safety harness connected to a lifeline that the free end is held by a person staying outside the confined space.
- 4. Implement effective Design for Safety Management System, fully consider the actual situation prior to commencement of work, and eliminate or reduce the major risks of confined spaces during construction.
- 5. Adopt appropriate Smart Site Safety System to strengthen the monitoring system of confined spaces, including installation of smart locks, Al cameras and real-time gas detectors in the confined spaces, and integrated to the Centralised Management Platform for real-time monitoring of the conditions for confined spaces.



A worker should use suitable safety harness connected to a lifeline that is strong enough to enable him to be pulled out









SAFETY ROLES AND RESPONSIBILITIES OF KEY STAKEHOLDERS IN THE HONG KONG CONSTRUCTION INDUSTRY



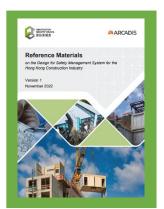
What if all stakeholders can act together and take one step further to fulfill their roles and responsibilities, can similar accident be avoided?

- In the design stage, designers should review or modify the designs with relevant stakeholders to eliminate, reduce or control foreseeable risks of a confined space that may arise during construction, the maintenance and use of a building.
- During the construction stage, work team should plan, manage and monitor the confined space work effectively to make sure that each worker is under their control with appropriate supervision, instructions and information so that the work can be carried out, so far as is reasonably practicable, without risks to health and safety.
- Work team must not begin confined space work unless reasonable measures are taken to prevent access by unauthorised persons to the confined spaces.
- Workers should follow to the developed safe working procedures, in case identifying any changes in the construction process, report it to their supervisors and take action against it immediately.

Reference information for sharing



Reference Material on Safety Roles and Responsibilities of Key Stakeholders in the Hong Kong Construction Industry



Reference Materials on the Design for Safety Management System for the Hong Kong Construction Industry



Poster on Safety Measures -Confined Space

