

For information on
18 July 2017

Legislative Council Panel on Manpower Occupational Safety and Health at Work in Confined Spaces

Purpose

This paper aims to brief Members on the regulation of occupational safety and health (“OSH”) at work in confined spaces by the Labour Department (“LD”).

Confined Spaces

2. Confined space means any place which, by virtue of its enclosed nature, may carry specified risks, including:-

- (i) danger caused by a fire or explosion;
- (ii) loss of consciousness caused by an increase in body temperature;
- (iii) loss of consciousness or asphyxiation caused by gas, fume, vapour or the lack of oxygen;
- (iv) drowning risks caused by an increase in the level of liquid; or
- (v) asphyxiation caused by a free flowing solid or inability to reach a respirable environment due to entrapment by a free flowing solid.

Typical examples of a confined space include manholes, shafts, pits, tunnels, pipes and boilers, etc.

3. As the possible danger in confined spaces poses risks to workers’ OSH, LD is highly concerned about the OSH condition of workers working in confined spaces and has strengthened efforts to safeguard their OSH through inspection and enforcement, publicity and promotion, as well as education and training of working personnel.

Statutory Requirements

4. The OSH at work in confined spaces is regulated under the Factories and Industrial Undertakings (Confined Spaces) Regulation (the Regulation). LD also published the “Code of Practice - Safety and Health at Work in Confined Spaces” to provide practical guidance for proprietors and contractors involved in such work so as to ensure OSH of workers.

5. Pursuant to the Regulation, proprietors or contractors shall take comprehensive safety measures, which mainly include the following:-

- to appoint a competent person to carry out a risk assessment for work in a confined space and make recommendations on the work method and OSH measures based on the assessment results;
- to issue a certificate stating that all necessary OSH precautions, such as gas testing and provision of ventilation, have been taken before workers entering the confined space;
- to ensure that no workers other than certified workers enter or work in the confined space;
- to ensure that a person is stationed outside the confined space to maintain communication with the workers inside;
- based on the risk assessment results, to ensure the use of an approved breathing apparatus and other necessary personal protective equipment (including safety harness and lifeline) by workers inside the confined space;
- to formulate and implement appropriate emergency procedures to deal with any sudden incident that may endanger workers; and
- to provide proper instruction, training and supervision to all relevant workers.

Any proprietor or contractor who fails to comply with the Regulation commits an offence and is liable, on conviction, to a maximum fine of \$200,000 and imprisonment for 12 months.

6. Besides, the Construction Sites (Safety) Regulations (the Regulations) stipulate that any construction site, at which there is an excavation work, shaft, tunnel, pit or opening in the ground and where there is danger to persons

employed therein caused by an irruption of water or material, the contractor shall ensure that adequate means are provided to enable such persons to reach positions of safety in the event of such emergencies. Any contractor who fails to comply with the Regulations commits an offence and is liable, on conviction, to a maximum fine of \$200,000.

Inspection and Enforcement

7. From 2014 up to May of 2017, LD conducted 636 inspections in relation to the works in confined spaces, with 138 written warnings and 9 suspension notices issued. Warning items include requiring contractors to ensure that hazardous gas monitors were in working order and the breathing apparatus were in compliance with standards, etc. In addition, during the same period, LD took out 31 prosecutions of which 24 were in relation to the Regulation.

Publicity and Promotion

8. To heighten the safety awareness of the industry, LD from time to time organises seminars on safety at work in confined spaces for contractors and workers who are engaged in drainage works. A total of 21 related seminars were conducted during the period from 2014 to May 2017. LD in collaboration with the Occupational Safety and Health Council (“OSHC”) organised “Seminar on Safety and Health at Tunneling Work” and “Seminar on Safety and Health at Confined Space Work” for sharing information on OSH in confined spaces with attendees.

9. During 2014 to 2016, LD arranged the broadcast of a promotional video on safety at work in confined spaces in buses, minibuses and MTR. Besides, LD in collaboration with OSHC produced OSH promotional videos, including one on safety at work in confined spaces, for broadcast at prime time television. The promotional videos for 2017 were broadcast on July 10, and the episode for confined space work safety is scheduled for broadcast on July 18. Apart from the above, LD also produced a radio publicity programme in collaboration with the Radio Television Hong Kong to promote OSH. The topic of the confined space work safety was covered in the programme.

Personnel Training

10. According to section 4 of the Regulation, workers working in a confined space and competent persons who are responsible for preparing the risk assessment have to complete relevant safety training courses that have been approved by the Commissioner for Labour (“CL”), and are issued with relevant certificates. Validity period of the certificates is three years. Certificate holders are required to complete a revalidation course every three years after obtaining the certificate before they can continue to carry out the relevant work in confined spaces.

11. All of the above training courses are vetted by LD so as to ensure that the course contents cover essential elements to equip trainees with relevant safety knowledge for working in confined spaces. The contents include statutory requirements, potential hazards, safe working requirements, use of safety equipment, emergency response procedures, etc. Examinations are required for the courses (including the revalidation courses) to ensure that trainees have a good understanding on the knowledge. Furthermore, hands-on sessions for practising safety equipment are included in the courses to help trainees to apply the acquired knowledge at work in future. Safety training courses for competent persons also cover the principles and procedures of risk assessment for working in confined spaces. Trainers of the above courses are required to be approved by CL and their qualifications and relevant work experiences must meet the requirements of LD.

12. With regard to course monitoring, LD attaches great importance to the quality of the above mandatory safety training courses. LD conducts surprise inspections regularly to ensure that the training course providers are running the training courses in compliance with the approval conditions. During the period from 2014 to 2016, LD conducted around 20 surprise inspections and course observations of safety training courses on confined spaces (including Safety Training Course for Certified Workers and Safety Training Course for Competent Persons) to monitor their quality. In the past, LD withdrew the recognition of certain training course providers upon discovery of violation of the approval conditions.

13. Furthermore, LD provides various training courses regularly on safety and health legislation, including “A Brief Introduction to Safety Regulations

related to Working on Construction Sites” and “Legal Requirements related to Risk Assessment”. The courses cover the relevant statutory requirements for working in confined spaces. During the period from 2014 to 2016, LD conducted 338 such courses.

Follow-up Action on Fatal Accident on 10 July

14. LD is highly concerned about the industrial accident that happened in the afternoon of 10 July 2017 at a construction site in Hung Hom, where underground tunneling work was in progress. Three workers were killed when they were carrying out work related to hand-dug tunneling. LD is saddened by the death of the three workers in the accident and expresses its deepest sympathy to the victims’ families. LD has followed up on the case with the employer and the contractor concerned, and reminded them of the liability for employees’ compensation under the Employees’ Compensation Ordinance in regard to the employees who died in the work accident. LD has also contacted the family members of the deceased to understand their situation and immediate needs, explain the major statutory provisions on employees’ compensation in fatal work accidents, and introduce the application procedures for appropriate emergency funds as well as financial and other assistance offered by the Social Welfare Department (“SWD”). LD has arranged a meeting to assist the family members of the deceased to claim employees’ compensation, and will closely follow up on the case and render necessary assistance to the family members. On the other hand, SWD has contacted families of the three deceased workers. In addition to provision of immediate emotional support, grief counseling and accompanying them to the mortuary for identification of the dead bodies, etc., SWD released to each family emergency charitable funds at the total amount of \$140,000 on 13 July. SWD will continue to follow up on the welfare needs of the families concerned and render them services and assistances as appropriate.

15. Upon knowing the happening of the accident, LD commenced an immediate on-site investigation and also issued suspension notices to the contractors/employer involved to suspend work relating to the laying of underground power cable. The contractors/employer cannot resume the work process unless LD is satisfied that safety measures to abate the relevant risks have been taken. LD will complete investigation as soon as possible to identify the cause of the accident, ascertain the liability of the duty holders and recommend improvement measures. LD will take actions pursuant to the law

if there is any violation of the work safety legislation. LD will also step up inspections to similar sites. LD has also arranged an urgent meeting with the Construction Industry Council and industry stakeholders to discuss how to prevent similar incidents. LD has also held meetings with contractors engaged in such works, project proponents concerned (including relevant government departments) and stakeholders of the industry to remind them to take appropriate safety measures to prevent recurrence of similar accidents.

16. Concerning this accident, LD has issued a Work Safety Alert through its website and email, giving a brief account of the accident to duty holders, workers' unions, professional bodies of safety practitioners and others, and reminding the industry of the importance of following safety precautionary measures to prevent recurrence of similar accidents.

Advice Sought

17. Members are invited to note the content of this paper.

Labour and Welfare Bureau
Labour Department
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