



Work Safety Alert

Flashover while carrying out Excavation Work

1. **Date of Accident :** March 2016

2. **Place of Accident :** A pavement

3. **Summary :**

A worker while digging a pavement with a portable electric breaker was burnt as a live underground cable was damaged resulting to a flashover.

4. **Work Safety Alert for Contractors/ Employers :**

To ensure the safety of workers/ employees engaged in excavation work at places where underground utilities are likely present, the contractor/ employer 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 the excavation work, with particular attention paid to the possible existence, type, position and status of underground utilities such as electricity cables or gas pipes, the ground condition and the site constraints;
- formulating safe work methods and procedures with due regard to the results of risk assessments;
- locating the routes and depth of underground utilities, if any, by making reference to the drawings/ location plans and information obtained from the utility companies and/or the owners/ occupiers in respect of the area to be excavated;
- engaging a competent person to detect the alignment of all underground cables/ pipes by using suitable cable locators and to propose trial pit locations in accordance with relevant Codes of Practice;



- adopting trial pit excavation method by using hand tools to unveil underground pipes and cables, and identifying and clearly marking the routes and depth of all cables/ pipes before excavation work starts;
- where live underground cables are located within the area to be excavated, ensuring that all these cables are rendered dead before excavating;
- in case rendering the cables dead is not reasonably practicable, ensuring that the excavation work should only be done under a stringent permit-to-work system with adequate and appropriate safety measures taken to prevent workers against electrical hazards;
- excavating alongside the underground pipes and cables as far as practicable and avoiding digging directly above them;
- ensuring that no mechanical equipment or heavy power tools are used for digging in the close vicinity of underground pipes and cables, and maintaining adequate safe distance from underground pipes and cables when use of such equipment/ tools are unavoidable;
- stopping excavation immediately in case any unidentified utilities are found during the excavation;
- ensuring that the excavation work 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 excavation work;
- providing all workers/employees and supervisor who are engaged in the excavation work with necessary safety information, instruction and training; and
- establishing and implementing an effective monitoring and control system to ensure strict and full compliance with all the above safety measures by the workers/employees.



5. Reference :

- [A Guide to the Factories and Industrial Undertakings \(Electricity\) Regulations¹](#)
- [Code of Practice on Working near Electricity Supply Lines, 2005 Edition, by the Electrical and Mechanical Services Department¹](#)

DISCLAIMER

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.

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