保護供電電纜 採取一切合理步驟與措施 **Protect Electricity Supply Lines** Take All Reasonable Steps and Measures

機電工程署

引言

在供電電纜附近工作,例如在地下電纜附近進行挖掘工作或在架空電纜附近 使用起重機進行吊重工作,均有機會損壞電纜而令工作人員受傷或死亡,及 導致電力供應中斷,令鄰近市民及商業活動受到影響。

為免發生電力意外及電力供應中斷,根據《供電電纜(保護)規例》規定, 在供電電纜附近進行工程前,要採取一切合理步驟,以確定是否有該等供電 電纜存在,並須先取得與該等電纜有關的資料。另外,在施工時亦必須採取 一切合理措施以保護電纜免受損毀。

任何人在供電電纜附近工作,如未能採取一切合理步驟和一切合理措施,會被視為違反《供電電纜(保護)規例》,可被檢控。

Introduction

Damage to electricity supply lines may cause electrical accidents and power interruptions. Fatal accidents and serious injuries may occur during excavation close to underground electricity cables and during lifting operations by cranes or hoists near overhead electricity lines. In addition, damage may also cause power interruptions that could affect thousands of homes and businesses.

To prevent electrical accidents and power interruptions, the Electricity Supply Lines (Protection) Regulation requires that, prior to carrying out works in the vicinity of underground electricity cables or overhead electricity lines owned by electricity suppliers, all reasonable steps should be taken to ascertain the existence of these electricity cables or lines, and necessary information relating to them should be obtained. In the course of works, all reasonable measures should also be taken to protect these cables or lines from damage.

Any person works in the vicinity of electricity supply lines, and has not carried out all reasonable steps and all reasonable measures, will be treated as contravening the Electricity Supply Lines (Protection) Regulation and may be liable for prosecution.

在地下電纜附近工作

淮行工程前, 應採取一切合理步驟, 包括:

Before commencement of works, take all reasonable steps including:

1. 向供電商索取地下電纜圖則。 Obtain cable plans from electricity supplier.



2. 安排合資格人士(由機電工程署署長認可)進行地下電纜探測,探測 丁作包括:

Arrange a competent person (approved by the Director of Electrical and Mechanical Services) for underground cable detection including:

2.1 進行無源探測及確定挖掘試孔的位置; Carry out passive cable detection and identify trial hole locations:

2.2 必須在合資格人士監督下,挖掘試孔使所有目標地下電纜外露; Dig trial holes to expose all target cables (must be under supervision of a competent person);

2.3 在試孔位置,進行環形有源探測,確定未外露地下電 續的準線及深度;

Carry out toroidal active cable detection to ascertain the alignment and depth of the unexposed cables;

- 2.4 在地面上清晰標示地下電纜的準線及深度; Mark clearly the alignment and depth of cables on the ground;
- 2.5 向工地人員提供「合資格人士書面報告」。 Provide site personnel with the "Competent Person Written Report".
- 3. 安排工地簡報會,向工地人員解釋 報告內容及安全預防措施。 Arrange site briefing to explain the contents of the Report and the safety precautions to site personnel.



在施工期間,應採取一切合理措施,包括:

In the course of works, take all reasonable measures including:

1. 如電纜電壓為132千伏或以上,工程前必須 知會供電商。

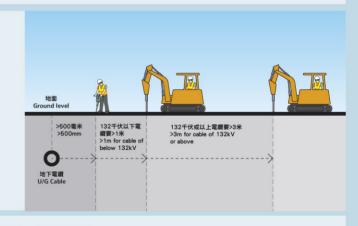
If the voltage of the cable is 132kV or above, the electricity supplier must be informed before excavation.



2. 進行工程時,工地人員應時常參閱「合資格人士書面報告」,並留意在地面 上的電纜標記和位置。

Always refer to the Competent Person Written Report and be vigilant for the signs and position of the cables.

3. 在挖掘時,挖掘點與 地下電纜保持足夠的 最少安全距離*。 Maintain adequate minimum safety clearance* between cables and point of excavation.



- 4. 小心地使用手動工具使地下電纜外露。 Use hand tools carefully to expose underground electricity cables.
- 5. 對挖掘時外露的地下電纜提供足夠支撐及保護。 Provide proper support and protection to exposed cables.
- 6. 適當地回填地下電纜。若發現電纜的保護物料受損或遺失,應通告供電商安 排重舖。

Provide proper backfilling for the cables. Approach electricity supplier to make up damaged or missing cable protection materials.

最少安全距離可參考「實務守則」 Refer to the "Code of Practice" for the minimum safety clearance.

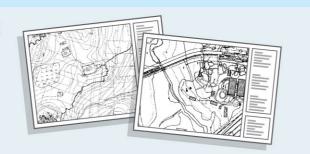
在架空電纜附近工作

Working near Overhead Electricity Lines

進行工程前,應採取一切合理步驟,包括:

Before commencement of works, take all reasonable steps including:

1. 向供電商索取架空電纜 準線圖則。 Obtain alignment drawings of overhead lines from electricity supplier.

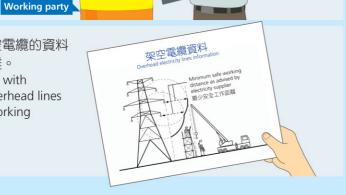


2. 確定架空電纜的準線、離地面高度及電壓。

Ascertain the actual alignment, ground clearance and voltage of overhead lines

3. 就有關安全事項聽取供電商的意見(包括最少安全工作距離)。
Obtain safety advice from electricity supplier including the minimum safe working distance.

4. 向工地人員講解架空電纜的資料及最少安全工作距離。
Provide site personnel with information about overhead lines and minimum safe working distance.

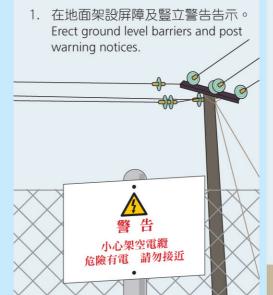


供電商

Electricity

supplier

在施工期間,應採取一切合理措施,包括: In the course of works, take all reasonable measures including:



 如有機器或設備須在架空電纜下 經過,須設立安全通道(包括閘□)。

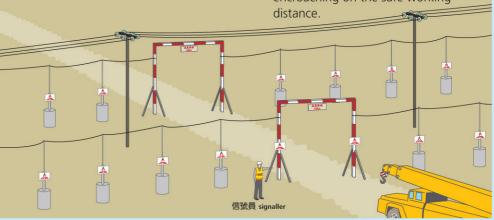
Provide passageway with gateways should plant or equipment pass underneath overhead lines.



3. 委派一名信號員,引導機械或設備移動。

Assign a signaller to guide the movement of plant or equipment.

4. 採取一切安全措施,防止工程人員、機器及設備超越安全工作距離。 Take all safety precautions to prevent personnel, plant and equipment from encroaching on the safe working distance.



常見錯誤

Common Errors

地下電纜

Underground Electricity Cables

1. 合資格人士完成無源探測後便進行挖掘工程,沒有安排挖掘試孔及環形有源探測來確定電纜的準線和深度。

Commence excavation works after passive detection without conducting trial hole excavation and torodial active detection to ascertain the alignment and depth of the underground cables.

- 2. 在挖掘試孔時,沒有安排合資格人士在場監督。
 Fail to arrange Competent Person to supervise trial hole excavation.
- 3. 沒有為工地人員舉行「合資格人士書面報告」工地簡報會。
 Fail to arrange site briefing on Competent Person Written Report for site personnel.
- 4. 沒有指示手提動力操作工具或機械挖掘機的操作員要與電纜保持安全距離。 Fail to instruct the operator of hand-held power tool and mechanical excavator to keep minimum safety clearance with the underground cables.
- 5. 時常錯誤假設電纜上會有警告帶或保護蓋板。 Always assume that there would have warning tapes or protection plates on underground cables.
- 6. 工程完成後沒有安排供電商補回電纜上的警告帶或保護蓋板。
 Fail to arrange electricity supplier to replenish warning tapes or protection plates on underground cables.
- 7. 沒有利用蓋板或沙包保護外露的電纜。

Fail to use protection plates or sand bags to protect exposed underground cables.

- 8. 直接使用混凝土作為回填物。
 Use concrete to bury cables.
- 9. 沒有在路面開鑿後補回電纜的準線記號。
 Fail to repaint alignment marks after removal of road surface.

架空電纜

Overhead Electricity Lines

- 1. 在工程展開前沒有向供電商查詢。
 - Fail to consult electricity supplier before works commencement.
- 2. 沒有使用屏障來確保最少安全工作距離。
 Fail to use physical barrier to keep minimum safe working distance.
- 3. 在接近架空電纜下吊運物件。
 - Stacking/lifting of goods close to overhead lines.
- 4. 誤以為電纜必有絕緣皮包着帶電部份。
 Misunderstand that overhead lines would have insulation sheath to insulate the live parts.

罰則

Penalties

任何人違反《供電電纜(保護)規例》最高可被罰款200,000元及監禁12個月。

A person who contravenes the Electricity Supply Lines (Protection) Regulation is liable to a maximum fine of \$200,000 and to imprisonment for 12 months.

備註:本資料文件並非法律文件,只供參考之用。

Note: This is NOT a legal document and is prepared for general information only.





機電工程署

香港九龍啟成街 3 號

Electricity Legislation Electrical and Mechanical Services Department

網址 Homepage: www.emsd.gov.hk 電郵 E-mail: info@emsd.gov.hk