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## **Monitoring of Road Opening Works**

#### I. Introduction

Given the demand for higher living standards, and the rapid development and redevelopment of the territory, road opening works are unavoidable in order to enhance the provision of services. The increase in road openings in recent years and the associated disruption to the public have been major causes for concern. Government is fully aware of the problem. The Road Opening Working Party, consisting of senior staff from various departments and chaired by the Secretary for Works, was set up in May 1995 to consider the matter. A range of control measures has been proposed and some of them are already put in place.

### II. Basic Control Mechanism

According to the Crown Lands Ordinance<sup>(Note)</sup>, a person is required to apply for an Excavation Permit (EP) from the Authority before making excavation in unleased land. For excavations in public roads, Highways Department (HyD) is the Authority for issuing the EP.

HyD controls road opening works by imposing conditions on EPs. The EP Conditions stipulate detail control requirements on, inter alia, noise control, site cleanliness and progress. It is also stipulated that the Permittee shall comply with all relevant provisions of the Crown Lands Ordinance and any other legislation (e.g. Noise Control Ordinance, Air Pollution Control Ordinance, Public Health and Municipal Services Ordinance, etc.) relating to the works covered by the EP.

As the control authority, HyD also requires utility undertakings to coordinate with each other during implementation of road opening works to minimize disturbance to the public and repeated opening in the same section of a road. Starting from mid 1994, utility undertakings are required to carry out

The Crown Lands Ordinance is to be construed in accordance with Section 2A of the Interpretation and General Clauses Ordinance as added by the Hong Kong Reunification Ordinance.

permanent reinstatement for the road pavement upon completion of their utility installation works. This requirement in effect reduce disturbance to the public in that it avoids the previous procedure of patching up the affected area with temporary pavement which would be dug up shortly after for completion of the permanent reinstatement by HyD.

### III. Noise Control

As required by the EP Conditions, all plant and equipment used by the Permittee for the work shall be effectively sound-reduced by means of silencers, mufflers, acoustic linings, screens, shields or other approved means.

Air compressors and hand-held percussive breakers are common tools used in road opening works. To avoid use of compressors/breakers that would generate excessive noise, contractors are required to apply for a Noise Emission Label from EPD for each of such plant. EPD will only issue the plant a Noise Emission Label if its noise emission level complies with the relevant regulations.

Furthermore, under the Noise Control Ordinance, the Permittee shall apply for a Construction Noise Permit from EPD if his work involves the use of powered equipment and/or specific manual work such as hammering, handling of steel bars and wooden boards in restricted hours (i.e. 7 p.m. to 7 a.m. on weekdays and any time on General Holidays including Sundays).

EPD will issue such permit for essential road opening work in restricted hours only if the work during restricted hours would cause less public annoyance or inconvenience than would be caused by carrying out the work during non-restricted hours. In such cases, EPD will require the use of quietest practicable working methods and noise mitigation measures to minimize the noise disturbance to the nearby residents. Since last year, EPD has also imposed as mandatory condition to Construction Noise Permits to demand contractors of all newly awarded contracts to use 'quiet construction equipment' (equipment that generates less noise and found suitable for specific road opening road) during restricted hours.

## IV. Site Cleanliness Control

As stipulated in the EP Conditions, the Permittee shall keep the site in a clean and tidy condition and free of litter and rubbish as required by the Public Health and Municipal Services Ordinance. The Air Pollution Control (Construction Dust) Regulation has also come into effect in June this year. The Regulation stipulates a series of control measures on, inter alia, the following aspects:

Stockpiling of dusty materials Any stockpile of dusty materials shall not extend beyond the pedestrian barriers, fencing or traffic cones. The stockpile shall be either covered entirely by impervious sheeting, or sprayed with water so as to maintain the entire surface wet, and removed or backfilled or reinstated promptly after the excavation.

Power-driven drilling, cutting and polishing Water or a dust suppression chemical shall be continuously sprayed on the surface where any power-driven drilling, cutting, polishing or other mechanical breaking operation that causes dust emission is carried out, unless the process is accompanied by the operation of an effective dust extraction and filtering device.

Excavation or earth moving

The working area of any excavation or earth moving operation shall be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet.

## V. Progress Control

The EP Conditions stipulate that the Permittee shall carry out the work as expeditiously as possible, whilst extension of the Permit period will not be granted without valid reasons. HyD reserves the right to take over the work site if the excavation remains open without being worked on and without any reason given to and accepted by HyD.

In this regard, a site may sometimes appear unattended (i.e. no labourer appears to be working on site) but is in fact undergoing proper progress. Such circumstances may include curing of concrete, testing of apparatus, etc. To avoid misunderstanding, with effect from June this year, when a site has to be left unattended apparently because of a good reason necessary for the proper execution of the works, the Permittee is required to erect display boards on site to explain the apparent unattendance.

# VI. Monitoring and Enforcement

To enforce the EP Conditions, HyD carries out regular site inspections on road excavation works to check whether the conditions have been complied with. When non-compliance is observed, the Permittee will be instructed to rectify the situation in due course. HyD regularly compiles non-compliance statistics against common Permittees for consideration of appropriate sanctioning measures. Moreover, breach of EP Conditions by the Permittee may cause the

EP to be terminated by HyD, who may also impose more stringent conditions to the concerned utility undertaking in its future applications.

Being the Authority of the Noise Control Ordinance and the Air Pollution Control Ordinance, EPD also conducts inspections on road opening work sites and exercises sanctioning measures where necessary.

## VII. Computerized Utility Management System

The computerized Utility Management System (UMS) developed by HyD under the assistance of the Information Technology Services Department has been fully rolled out in October this year. With the spatial analysis function of the UMS, utility road opening works can be coordinated in such a manner that repeated openings in the same section of a road could be minimized. Furthermore, to prevent utility undertakings from applying for excessively long EP periods, past statistics on EP periods have been input into the system. Applications with proposed working period substantially longer than that deduced from statistics will be detected and refused unless supported with specific justifications.

## VIII. Three-tier Coordination Mechanism

As the majority of EPs are issued to utility undertakings, coordination forums amongst Government authorities and utility undertakings are established at the top management, mid level and working level respectively as follows:

Joint Utilities Policy Group - forum for top management to discuss policy issues

Utilities Technical Liaison Committee - forum for mid level management to discuss technical matters

Road Opening Coordination Committee - forum for working level to coor-dinate front line issues

Through the three-tier forums, common deficiencies are reflected, and improvement measures are deduced as a continuous practice.

# IX. Future Tightening Control on Roadwork Contractors

According to the current practice in Hong Kong, road excavations are normally undertaken by contractors employed by works promoters (e.g. utility undertakings), but the EPs are applied by the promoters themselves for enhancing advance coordination. As the contractors who actually carry out the works are not Permittees, the statutory control mechanism through the EP system becomes somewhat indirect. Government is currently arranging for amending the Crown Lands Ordinance to the effect that the EP issued to a promoter will be deemed to be issued to his contractor as well so that the contractor can be prosecuted directly in case he does not comply with the EP Conditions during the course of his works. The amendment is now under preparation and is scheduled to be submitted to the Legislative Council in late 1998 provided that a legislative slot is available at that time.

HyD and other Government departments will continue to closely monitor the carrying out of road opening works, and introduce additional control measures when necessity arises.

Highways Department December 1997