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*For advice on 12 January 2010*

## **Implementation of the Clinical Waste Control Scheme and Code of Practice for the Management of Clinical Waste**

### **PURPOSE**

This paper consults Members of the Advisory Council on the Environment (ACE) on the implementation of the Clinical Waste Control Scheme (the Control Scheme) through enactment of subsidiary legislation under the Waste Disposal (Amendment) Ordinance 2006 and the promulgation of Code of Practice (CoP) to provide the affected parties with detailed guidance on the handling and management of clinical waste.

### **BACKGROUND**

2. In June 2003, we consulted ACE (vide ACE Paper 17/2003) and Members supported the legislative proposal to amend the Waste Disposal Ordinance (WDO) to provide for the introduction of the Control Scheme. The Waste Disposal (Amendment) Ordinance 2006 (the Amendment Ordinance) was subsequently enacted in April 2006. In the process, the Control Scheme and the regulatory measures had been thoroughly discussed with ACE, the Legislative Council (LegCo), and the affected trades.

3. The Control Scheme comprises the following key elements:

- (a) requiring clinical waste producers to properly manage their clinical waste by segregating those waste from other municipal solid waste and consigning the clinical waste to licensed waste collectors for disposal. Healthcare professionals<sup>1</sup> can be exempted from licensing when delivering not more than five kilograms of clinical waste per trip to a licensed disposal facility or an

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<sup>1</sup> A healthcare professional will be defined to mean a registered medical practitioner, dentist or veterinary surgeon; a registered or listed Chinese medicine practitioner; or a registered or enrolled nurse.

- authorized collection point set up by waste collectors or individual waste producers;
- (b) establishing a statutory licensing requirement for clinical waste collectors;
  - (c) promulgating to the parties concerned two sets of CoP to provide guidance for clinical waste producers and waste collectors on segregation, packaging, labelling, storage, collection, transportation and disposal of clinical waste;
  - (d) setting up a trip ticket system to track clinical waste from source to disposal facility;
  - (e) designating the Chemical Waste Treatment Centre (CWTC) as the Government facility to treat clinical waste; and
  - (f) levying a charge on the clinical waste to be disposed of at the CWTC.

4. The details of the regulatory requirements are to be set out in the Waste Disposal (Clinical Waste) (General) Regulation (the General Regulation). In order to provide the affected parties with detailed guidance on the handling and management of clinical waste, the Secretary for the Environment will issue after consultation with ACE, under section 35 of the Waste Disposal Ordinance, two sets of CoP to complement the control set out in the General Regulation.

5. On the disposal end, we will utilize the CWTC<sup>2</sup> to treat clinical waste. At present, clinical waste is separated from other waste for disposal in special trenches at landfills. While this is a safe and proper disposal method, high-temperature incineration is the best guarantee for all pathogens to be destroyed. We have examined other treatment methods<sup>3</sup> but decided against them because they are either not proven or unreliable, or there is not yet any international control parameter. We are in the process of upgrading the CWTC to receive and treat clinical waste by incineration, meeting the latest emission standard of the European Union. We aim to complete the legislative exercise by introducing the two Regulations to LegCo, as well as publishing the two sets of CoP in parallel, for implementing the Control Scheme. Disposal of clinical waste at the CWTC is subject to a charge to be set out under the Waste Disposal (Charges for Disposal of Clinical Waste) Regulation.

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<sup>2</sup> An Environmental Impact Assessment Study was conducted in 1998-99 and concluded that the CWTC was suitable to treat clinical waste in an environmentally acceptable manner. The ACE endorsed the Study Report in May 1999.

<sup>3</sup> We have examined treatment methods like autoclaving, microwaving, chemical disinfection, gastrification, pyrolysis, plasma and irradiation etc.

## **WASTE DISPOSAL (CLINICAL WASTE) (GENERAL) REGULATION**

6. The main provisions of the proposed General Regulation are explained in the following paragraphs.

### ***Duties of clinical waste producer***

7. A clinical waste producer will be required to cause or arrange for the clinical waste to be properly disposed of by:

- (a) consigning the clinical waste to a licensed or authorized clinical waste collector or to the collection authority;
- (b) delivering the clinical waste to a collection point or licensed disposal facility by himself who is a healthcare professional, or by his employee who is also a healthcare professional on his behalf; or
- (c) disposing of the clinical waste at the land or premises where the waste is generated and where a waste disposal licence is in force.

8. A clinical waste producer will also be required to keep records for a period of 12 months of the waste consigned to licensed or authorized waste collectors, or delivered to collection points or licensed disposal facilities by himself or by his employee on his behalf. He shall produce such records to the Director of Environmental Protection (the Director) for inspection when so required.

### ***Delivery of clinical waste by healthcare professional***

9. A healthcare professional delivering clinical waste to a collection point or licensed disposal facility is required to comply with the requirements set out in the General Regulation, which include the followings:

- (a) the clinical waste shall not exceed five kilograms on any one occasion;
- (b) the clinical waste shall not contain any infectious materials as specified in the Amendment Ordinance;
- (c) the clinical waste shall be properly packaged, labelled and sealed in the containers as specified in the General Regulation;
- (d) only private cars shall be used as a means of transport;

- (e) the clinical waste shall be delivered directly to a collection point or licensed disposal facility within 24 hours; and
- (f) adequate equipment shall be provided for cleaning up any spillage of clinical waste in the course of delivery.

#### ***Delivery of clinical waste by licensed waste collector***

10. The collection of clinical waste will be regulated by licences issued by the Director under the WDO. The General Regulation will specifically provide that a licensed waste collector shall deliver the clinical waste collected within 24 hours to a licensed disposal facility so as to minimize the potential risk associated with the movement of the waste. In addition, the Director may give direction to require a licensed waste collector to deliver any clinical waste collected to a specified disposal facility within such time as specified in the direction.

#### ***Collection, removal or disposal of clinical waste***

11. The Director will be empowered to serve notice(s) on an owner or occupier of land or premises requiring him to remove any clinical waste on the land or premises if the clinical waste is, or is likely to be, a danger to public health and safety, a source of pollution to the environment or a source of nuisance to the neighbouring area.

12. Under an emergency involving clinical waste, the Director may authorize, with terms and conditions, a person to collect or remove clinical waste without a waste collection licence, or to use the specified land or premises to dispose of clinical waste without a waste disposal licence.

#### ***Authorization for on-site collection point***

13. The Director may on application authorize, with terms and conditions, a clinical waste producer to set up an on-site collection point on land or premises where he produces clinical waste, for receiving clinical waste generated by him in other locations or delivered by other waste producers so as to facilitate the collection of small quantities of clinical waste from small waste producers.

#### ***Exemptions***

14. The Director may grant exemptions under the General Regulation to deal with justified circumstances where collection of clinical waste generated on site by licensed waste collectors is not practical. In such circumstances, transportation of such clinical

wastes by trained personnel to designated points for collection by licensed collectors is more appropriate. The following circumstances warranting exemption from the General Regulation have been identified during the consultation with the stakeholders:

- (a) transportation of clinical waste by community nurses from where the waste is produced to their hospital;
- (b) transportation of clinical waste by first-aiders from where the waste is produced to their headquarters;
- (c) transportation of clinical waste by ambulances from site to hospital/headquarters; and
- (d) transportation of clinical waste by the School Immunization Teams (SIT) of the Department of Health from school back to the SIT office.

### ***Offences and Penalties***

15. Offences for not complying with the Control Scheme (e.g. use of any land or premises for disposal of clinical waste without a waste disposal licence, providing clinical waste collection services without a waste collection licence, failure to arrange for proper disposal of clinical waste etc.) will be set out in the General Regulation. The penalties will be pitched at levels equivalent to similar offences in the main Ordinance with maximum fines ranging from \$50,000 to \$200,000 and imprisonment of 6 months.

### **WASTE DISPOSAL (CHARGES FOR DISPOSAL OF CLINICAL WASTE) REGULATION**

16. In accordance with the “user pays” principle, we will levy a charge on the clinical waste to be received and treated at the CWTC. Having regard to the level of charges for chemical waste and our assessment of acceptance by the affected trades back then, we originally proposed to set the initial charge at 31% of the variable operating cost<sup>4</sup> (VOC) of the CWTC. On this basis, the charge would be around \$2.38 per kilogram of clinical waste. We aimed to raise the charging level incrementally to eventually achieve full cost recovery, taking into account affordability and acceptability.

17. We have recently awarded a new ten-year contract to the CWTC operator with effect from 1 December 2009. The VOC of the CWTC operation has dropped in the new contract. For commencing the charging in 2011, we have reviewed the reasonable level of charges and propose to set the charge to recover 100% of the VOC in the new contract. The charge will be around \$2.72 per kilogram. In August 2009 (in the

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<sup>4</sup> The variable operating cost is the payment to the contractor based on the quantity of clinical waste received and treated at the facility.

absence of the new VOC from the new contract), we consulted the relevant stakeholders on the estimated charging level (using \$3 per kilogram as the estimated rate) on the basis of 100% VOC recovery. The stakeholders were in general receptive to the estimated charge and no objection has been received so far. The charge will be prescribed in the Regulation.

## **DRAFT CODES OF PRACTICE FOR THE MANAGEMENT OF CLINICAL WASTE**

18. To facilitate compliance with the General Regulation, the Secretary for the Environment will, after consultation with ACE, issue two sets of CoP under section 35 of the WDO to provide detailed guidance for clinical waste producers and waste collectors on the segregation, packaging, labelling, storage, collection, transportation and disposal of clinical waste. The two documents are at **Annexes I and II**, which target major waste producers (e.g. hospitals) and waste collectors, and small waste producers (e.g. private clinics) respectively.

## **PUBLIC CONSULTATION**

19. We had commenced consultation with the public and other stakeholders on the Control Scheme before the Amendment Ordinance was enacted. Respondents generally supported the proposal. Greenpeace and the Kwai Tsing District Council (K&TDC) expressed concerns on the health effects of emissions from the CWTC for treating clinical waste. We submitted a paper to the K&TDC in October 2009 and also attended its meeting in December 2009 to brief the members on the timetable for implementing the Control Scheme, the emissions monitoring arrangements by independent experts and the monthly reporting of the monitoring results to the K&TDC. No further objection has been received.

20. In August 2009, we consulted the relevant stakeholders, including key stakeholders such as the Hospital Authority, Hong Kong Medical Association, Hong Kong Doctors Union, Practising Estate Doctors' Association, Hong Kong Dental Association, The College of Nursing, on the two sets of draft CoP and informed them of the estimated charge for disposing of clinical waste at the CWTC. The stakeholders are generally receptive to the draft CoP and the charging level.

## **LEGISLATIVE TIMETABLE**

21. We plan to introduce the two Regulations into the LegCo in the first half of 2010 for the negative vetting process. Subject to the progress of vetting, we aim at commencing the licensing provisions of the Amendment Ordinance by mid 2010, and the remaining provisions of the Amendment Ordinance, together with the two Regulations,

by the first quarter of 2011. The two sets of CoP will be gazetted and issued in mid 2010.

## **ADVICE SOUGHT**

22. Members are invited to advise on the proposed implementation of the Control Scheme and promulgation of the two sets of CoP.

**Environmental Protection Department  
January 2010**