

AIR POLLUTION CONTROL (CONSTRUCTION DUST) REGULATION

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AIR POLLUTION CONTROL (CONSTRUCTION DUST) REGULATION

(Made under section 43 of the Air Pollution Control Ordinance
(Cap. 311) after consultation with the Advisory
Council on the Environment)

1. Commencement

This Regulation shall come into operation on a day to be appointed by the Secretary for Planning, Environment and Lands by notice in the Gazette.

2. Interpretation

(1) In this Regulation, unless the context otherwise requires -

"construction site" () means a place where construction work is or is intended to be carried out and includes any area, whether located in such a place or elsewhere, that is used for the storage of -

- (a) dusty materials or plant used or intended to be used for the purpose of the construction work; or
- (b) dusty materials produced as a result of the construction work being carried out;

"construction work" () means -

- (a) the construction, demolition, reconstruction, shoring, alteration, maintenance or repair of the whole or any part of any arch, bridge, building, chimney, dock, hoarding, shelter, tunnel, wall, pier, wharf or other structure or any road, slope, embankment, street, railway, tramway, airport, channel, drain, service lane, water conduit, lighting or public utility;
- (b) dredging;
- (c) the extraction from the earth of any matter whatsoever;
- (d) piling;
- (e) quarrying;
- (f) reclamation;
- (g) site formation;
- (h) any work involved in preparing for any operation of the type referred to in paragraph (a), (b), (c), (d), (e), (f) or (g); and
- (i) the use of machinery, plant, tools, gear and material in connection with or for any operation referred to in paragraph (a), (b), (c), (d), (e), (f), (g) or (h);

"contractor" () means any person or firm engaged in carrying out construction work by way of trade or business, either on his own account or pursuant to a contract or arrangement entered into with another person, including the Government or any public body;

"dusty materials" () includes cement, earth, pulverized fuel ash, aggregates, silt, stone fines, sand, debris, sawdust and wooden chips;

"emergency work" () means -

- (a) work that is required under emergency situations where human life or building safety is immediately threatened or is being threatened; or
- (b) repair work that is immediately required as a result of accidental failure of utility services, road collapse or road blockade due to natural uncontrollable forces or accidents;

"excluded work" () means -

- (a) renovation, maintenance and alteration work carried out entirely within the external walls and under the roof of a building;
- (b) work carried out exclusively for asbestos investigation, abatement and removal;
- (c) any specified process;
- (d) work carried out entirely within a tunnel (except work carried out in any part of the tunnel that is within 100m of any exit to the open air);
- (e) work carried out entirely under water;
- (f) repair work (including cleansing and inspection) to an underground sewer, drain, culvert or other pipeline that is carried out entirely within the confines of such sewer, drain, culvert or pipeline;
- (g) paint brushing and patch repairs carried out on the outer surface of the external wall of a building or the upper surface of the roof of a building;
- (h) work carried out in a quarry including any associated rehabilitation of the excavated surface; or
- (i) farming or archaeological activities;

"notifiable work" () means -

- (a) site formation;
- (b) reclamation;
- (c) demolition of a building;
- (d) work carried out in any part of a tunnel that is within 100m of any exit to the open air;
- (e) construction of the foundation of a building;

(f) construction of the superstructure of a building;
or
(g) road construction work;
but does not include any emergency work, excluded work or
regulatory work;
"plant" () includes any plant, equipment, gear,
machinery, apparatus or appliance, or any part thereof;
"reclamation" () has the same meaning as in section 2
of the Foreshore and Sea-bed (Reclamation) Ordinance
(Cap. 127);

"regulatory work" () means -

- (a) renovation carried out on the outer surface of
the external wall or the upper surface of the
roof of a building;
- (b) road opening or resurfacing work;
- (c) slope stabilization work; or
- (d) any work involving any of the following
activities -
 - (i) stockpiling of dusty materials;
 - (ii) loading, unloading or transfer of dusty
materials;
 - (iii) transfer of dusty materials using a belt
conveyor system;
 - (iv) use of vehicles;
 - (v) pneumatic or power-driven drilling,
cutting and polishing;
 - (vi) debris handling;
 - (vii) excavation or earth moving;
 - (viii) concrete production;
 - (ix) site clearance; or
 - (x) blasting,

but does not include any emergency work, excluded work or
notifiable work;

"road construction work" () means construction of any
permanent road, bridge or underpass for vehicular traffic
but does not include any maintenance or resurfacing work
to an existing road, bridge or underpass;

"road opening or resurfacing work" () includes
excavation, backfilling to trenches, and temporary or
permanent reinstatement of existing roads, streets,
footway or bridges for the purpose of -

- (a) maintenance or resurfacing;
- (b) erection of poles or structures;
- (c) trial hole opening; or
- (d) laying or repairing of pipes, cables, ducts,
valve boxes, chambers or any other utility
services;

"site formation" () includes -

- (a) excavations on sloping land;
- (b) filling;
- (c) any earth moving work for preparation of a construction site; and
- (d) groundwater drainage work as defined in section 2 of the Buildings Ordinance (Cap. 123);

"specified" (), in relation to a form or the particulars to be given on a form, means specified by the Authority;

"utility services" () means public services involving electricity, lighting, traffic control, gas, telecommunication, cable television, water supply, drainage and sewerage, public transportation, and any associated supporting services.

(2) For the purpose of this Regulation, a contractor is responsible for a construction site if he is carrying out construction work at the site or, where more than one contractor is carrying out construction work at the site, if he is the principal contractor carrying out such work.

3. Notification

(1) The contractor responsible for a construction site where any notifiable work is proposed to be carried out shall give notice to the Authority of the proposal to carry out the work.

(2) A notice under subsection (1) shall be given to the Authority before the proposed notifiable work commences to be carried out and shall be in the specified form and include the specified particulars.

(3) Where any change relating to any of the particulars given in a notice under subsection (1) is proposed, the contractor responsible for the construction site shall give notice to the Authority of the proposed change.

(4) A notice under subsection (3) shall be given to the Authority before the proposed change takes effect and shall be in the specified form and include the specified particulars.

(5) Any person who contravenes this section commits an offence and is liable to a fine at level 4 on conviction for a first offence and to a fine at level 5 on conviction for a second or subsequent offence.

4. Control of notifiable works

(1) The contractor responsible for a construction site where a notifiable work is being carried out shall ensure that the work is carried out in accordance with the Schedule.

(2) Any person who contravenes subsection (1) commits an offence and is liable to a fine at level 5 on conviction for a first offence and to a fine at level 6 and to imprisonment for 3 months on conviction for a second or subsequent offence, and in addition, if the offence is a continuing offence, to a fine of \$10,000 for each day during the whole or any part of which the offence continues.

5. Control of regulatory works

(1) The contractor responsible for a construction site where a regulatory work is being carried out shall ensure that the work is carried out in accordance with the Schedule.

(2) Any person who contravenes subsection (1) commits an offence and is liable to a fine at level 4 on conviction for a first offence and to a fine at level 5 on conviction for a second or subsequent offence, and in addition, if the offence is a continuing offence, to a fine of \$5,000 for each day during the whole or any part of which the offence continues.

6. Control of storage of dusty materials associated with excluded works

(1) The contractor responsible for a construction site where an excluded work is being carried out shall ensure that any dusty materials which are -

- (a) used or intended to be used for the purpose of the excluded work; or
- (b) produced as a result of the excluded work being carried out,

and which are stored outside the site are stored and handled in accordance with any relevant provisions of the Schedule.

(2) Any person who contravenes subsection (1) commits an offence and is liable to a fine at level 4 on conviction for a first offence and to a fine at level 5 on conviction for a second or subsequent offence, and in addition, if the offence is a continuing offence, to a fine of \$5,000 for each day during the whole or any part of which the offence continues.

(3) In this section, "construction site" () means any place where construction work is or is intended to be carried out.

7. Defence of due diligence, etc.

It is a defence to a charge against any person for an offence under section 4, 5 or 6 for the person charged to prove that -

- (a) interruptions or contingencies in the supply of necessary materials, water and equipment;
- (b) weather conditions prevailing at the time of the offence;
- (c) a threat or an imminent threat to human life or building safety; or
- (d) the physical constraints of the construction site,

prevented him from complying with that section and that he took all reasonable steps and exercised all due diligence to avoid the commission of the offence.

8. Transitional

(1) Except as provided in subsection (2), this Regulation does not apply to -

- (a) any notifiable work or regulatory work that has commenced to be carried out before the day on which this Regulation comes into operation; or
- (b) any notifiable work or regulatory work -
 - (i) the contract for which was entered into before the day on which this Regulation comes into operation; and
 - (ii) that commences to be carried out not later than 1 year after that day.

(2) If a notifiable work or regulatory work referred to in subsection (1) is still being carried out on the date that is 1 year after the day on which this Regulation comes into operation, this Regulation (except section 3) shall apply to that work commencing on that date.

(3) Except as provided in subsection (4), section 6 does not apply to the storage of dusty materials which are used or intended to be used for the purpose of an excluded work, or produced as a result of an excluded work being carried out, if -

- (a) the excluded work has commenced to be carried out before the day on which this Regulation comes into operation; or
- (b) the contract for the excluded work was entered into before the day on which this Regulation comes into operation and the excluded work commences to be carried out not later than 1 year after that day.

(4) If an excluded work referred to in subsection (3) is still being carried out on the date that is 1 year after the day on which this Regulation comes into operation, section 6 shall, commencing on that date, apply in respect of any dusty materials which are stored outside the construction site where

the excluded work is being carried out, whether or not the dusty materials are so stored before or after that date.

SCHEDULE

[ss. 4, 5 & 6]

DUST CONTROL REQUIREMENTS

PART I

CONTROL REQUIREMENTS FOR NOTIFIABLE WORKS

1. Site formation

In the case of site formation, any relevant requirements set out in Parts III and IV shall be met.

2. Reclamation

In the case of reclamation -

- (a) if a stockpile of dusty materials is more than 1.2m high and lies within 50m from any site boundary that adjoins a road, street, service lane or other area accessible to the public, the stockpile shall be properly treated and sealed with latex, vinyl, bitumen or other suitable surface stabilizer; and
- (b) any relevant requirements set out in Parts III and IV shall be met.

3. Demolition of a building

In the case of the demolition of a building -

- (a) the area at which demolition work takes place shall be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the demolition activities so as to maintain the entire surface wet;
- (b) for any wall of the building to be demolished that abuts or fronts upon a street, service lane or other open area accessible to the public, impervious dust screens or sheeting shall be used to enclose the whole wall to a height of at least 1m higher than the highest level of the structure being demolished;
- (c) any dusty materials remaining after a stockpile is removed shall be wetted with water and

- cleared from the surface of roads or streets;
and
- (d) any relevant requirements set out in Parts III and IV shall be met.

4. Work carried out in any part of a tunnel that is within 100m of any exit to the open air

In the case of work carried out in any part of a tunnel that is within 100m of any exit to the open air, any relevant requirements set out in Parts III and IV shall be met.

5. Construction of the foundation of a building

In the case of the construction of the foundation of a building, any relevant requirements set out in Parts III and IV shall be met.

6. Construction of the superstructure of a building

In the case of the construction of the superstructure of a building -

- (a) where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting shall be provided to enclose the scaffolding from the ground floor level of the building, or if a canopy is provided at the first floor level, from the first floor level, up to the highest level of the scaffolding;
- (b) any skip hoist for material transport shall be totally enclosed by impervious sheeting; and
- (c) any relevant requirements set out in Parts III and IV shall be met.

7. Road construction work

In the case of road construction work, any relevant requirements set out in Parts III and IV, except section 13(c), shall be met.

PART II

CONTROL REQUIREMENTS FOR REGULATORY WORKS

8. **Renovation carried out on the outer surface of the external wall or upper surface of the roof of a building**

In the case of renovation carried out on the outer surface of the external wall or upper surface of the roof of a building -

- (a) where a scaffolding is erected around the perimeter of a building under renovation, effective dust screens, sheeting or netting shall be provided to enclose the scaffolding from the ground floor level of the building, or if a canopy is provided at the first floor level, from the first floor level, up to the highest level of the scaffolding;
- (b) any skip hoist used for material transport shall be totally enclosed by impervious sheeting;
- (c) any dusty materials remaining after a stockpile is removed shall be wetted with water and cleared from the surface of roads or streets; and
- (d) any relevant requirements set out in Parts III and IV shall be met.

9. **Road opening or resurfacing work**

In the case of road opening or resurfacing work -

- (a) any excavated dusty materials or stockpile of dusty materials shall be -
 - (i) covered entirely by impervious sheeting; or
 - (ii) sprayed with water so as to maintain the entire surface wet, and removed or backfilled or reinstated within 24 hours of the excavation or unloading;
- (b) a stockpile of dusty materials shall not extend beyond the pedestrian barriers, fencing or traffic cones;
- (c) any dusty materials remaining after a stockpile is removed shall be wetted with water and cleared from the surface of roads or streets; and

- (d) any relevant requirements set out in Parts III and IV shall be met.

10. Slope stabilization work

In the case of slope stabilization work, any relevant requirements set out in Parts III and IV shall be met except -

- (a) section 13(a);
- (b) section 13(b); and
- (c) section 13(c), if the site boundary adjoins any road for vehicular traffic with or without a footway.

11. Other regulatory work

In the case of any regulatory work not covered by section 8, 9 or 10, any relevant requirements set out in Parts III and IV shall be met.

PART III

GENERAL CONTROL REQUIREMENTS

12. General Requirements

(1) Any air pollution control system, equipment or measure required by any provision of this Schedule shall be operated or implemented (as the case may be) properly and effectively whenever the plant or process concerned is in operation or the activity concerned is engaged in.

(2) In the event of a malfunctioning or breakdown of any air pollution control system or equipment, the plant, process or activity concerned shall be stopped as soon as practicable until such time as the air pollution control system or equipment is restored to proper functioning.

(3) Except for cleaning formwork or other surfaces receiving concrete prior to concreting or cleaning of slopes prior to shotcreting, a compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.

(4) Any proposal to use a dust suppression chemical for the purpose of this Regulation within or in the immediate vicinity of any water storage or gathering ground of the Water Supplies Department shall be submitted to the Director of Water Supplies for approval.

(5) The use of any particular dust suppression chemical within a location referred to in subsection (4) shall be

subject to the prior approval of the Director of Water Supplies.

13. Site boundary and entrance

Except for road opening or resurfacing work, or for construction work carried out in a construction site that is completely paved or completely covered with hardcore -

- (a) vehicle washing facilities including a high pressure water jet shall be provided at every discernible or designated vehicle exit point;
- (b) the area where vehicle washing takes place and the section of the road between the washing facilities and the exit point shall be paved with concrete, bituminous materials or hardcores;
- (c) where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level shall be provided along the entire length of that portion of the site boundary except for a site entrance or exit.

14. Access road

- (1) Except for road opening or resurfacing work -

- (a) every main haul road shall be -
 - (i) paved with concrete, bituminous materials, hardcores or metal plates, and kept clear of dusty materials; or
 - (ii) sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet;
- (b) the portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit shall be kept clear of dusty materials.

(2) In this section, "main haul road" (...) means any course inside a construction site having a vehicle passing rate of higher than 4 in any 30 minutes.

15. Cement and dry pulverized fuel ash (PFA)

(1) Every stock of more than 20 bags of cement shall be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.

(2) Cement or dry pulverized fuel ash delivered in bulk shall be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling

line such that, in the event of the silo approaching an overfilling condition, an audible alarm is triggered and the material filling stops within one minute.

(3) Silos used for the storage of cement or dry pulverized fuel ash shall not be overfilled.

(4) Any system or facility used for the loading, unloading, transfer, handling or storage of bulk cement or dry pulverized fuel ash (such as storage bins, silos and weighing scales) shall be totally enclosed, and any vent or exhaust shall be fitted with an effective fabric filter or equivalent air pollution control system or equipment.

16. Exposed earth

Exposed earth shall be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen or other suitable surface stabilizer within 6 months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.

17. Dusty materials

Cement, pulverized fuel ash or any other dusty materials collected by fabric filters or other air pollution control system or equipment shall be disposed of in totally enclosed containers.

PART IV

CONTROL REQUIREMENTS FOR INDIVIDUAL ACTIVITIES

18. Stockpiling of dusty materials

Any stockpile of dusty materials shall be either -

- (a) covered entirely by impervious sheeting;
- (b) placed in an area sheltered on the top and the 3 sides; or
- (c) sprayed with water or a dust suppression chemical so as to maintain the entire surface wet.

19. Loading, unloading or transfer of dusty materials

Except for cement and pulverized fuel ash and for cases where the moisture content of the dusty materials is a matter of concern, all dusty materials shall be sprayed with water or a dust suppression chemical immediately prior to any loading,

unloading or transfer operation so as to maintain the dusty materials wet.

20. Transfer of dusty materials using a belt conveyor system

(1) Every belt conveyor used for the transfer of dusty materials shall be enclosed on the top and the 2 sides.

(2) Every transfer point between any 2 belt conveyors shall be totally enclosed.

(3) An effective belt scraper or equivalent device shall be installed at the head pulley of every belt conveyor to dislodge fine particles that may adhere to the belt surface and to reduce carry-back of fine particles on the return belt, and the belt scraper or equivalent device shall be equipped with bottom plates or other similar means to prevent falling of materials from the return belt.

(4) Every stockpiling belt conveyor shall be provided with a mechanism to adjust its level such that the vertical distance between the belt conveyor outlet and the material landing point is maintained at not more than 1m.

(5) The area for the unloading of dusty materials from a belt conveyor outlet to any stockpile, storage bin, truck and barge shall be enclosed on the top and the 3 sides.

21. Use of vehicles

(1) Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty materials from its body and wheels.

(2) Where a vehicle leaving a construction site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.

22. Pneumatic or power-driven drilling, cutting and polishing

Water or a dust suppression chemical shall be continuously sprayed on the surface where any pneumatic or 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.

23. Debris handling

(1) Any debris shall be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the 3 sides.

(2) Every debris chute shall be enclosed by impervious sheeting or similar materials.

(3) Before debris is dumped into a debris chute, it shall be sprayed with water or a dust suppression chemical so that it remains wet when it is dumped.

24. 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.

25. Concrete production

(1) For concrete production using bulk cement or pulverized fuel ash as raw material, the requirements set out in sections 15(2), (3) and (4) shall be met.

(2) For concrete production using bagged cement or pulverized fuel ash, the batching and mixing processes shall be carried out in an area sheltered on the top and the 3 sides.

26. Site clearance

(1) The working area for the uprooting of trees, shrubs, or vegetation or for the removal of boulders, poles, pillars or temporary or permanent structures 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.

(2) All demolished items (including trees, shrubs, vegetation, boulders, poles, pillars, structures, debris, rubbish and other items arising from site clearance) that may dislodge dust particles shall be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides within a day of demolition.

27. Blasting

(1) The areas within 30m from the blasting area shall be wetted with water prior to blasting.

(2) Blasting shall not be carried out when the strong wind signal or tropical cyclone warning signal No. 3 or higher

is hoisted unless prior permission of the Commissioner of Mines is obtained.

Secretary for Planning, Environment and Lands

1997.

Explanatory Note

The purpose of this Regulation is to control dust emissions from construction work that has dust emission potential. The Regulation requires construction contractors to notify the Authority before they undertake certain construction work specified in the Regulation and sets out control standards that must be met when the work is carried out. The Regulation also creates offences for a failure to give proper notice or to comply with the control standards.