



Appendix A7



APPENDIX A7

ENVIRONMENTAL CONTROLS - REVIEW OF CONTRACT CONDITIONS

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APPENDIX A7

ENVIRONMENTAL CONTROLS - REVIEW OF CONTRACT CONDITIONS

1. INTRODUCTION

The environmental study has, on the basis of available design information recommended appropriate mitigation, monitoring and audit requirements necessary to minimize environmental impacts resulting from the construction and operation of the LAPH development.

To ensure the implementation of environmental protection measures recommended in the Environmental Assessment, environmental controls must be included in the contract documents, short term tenancy agreements (where appropriate) and lease conditions. At this 'planning and outline' design stage of the LAPH studies it is not possible to detail and specify all necessary contract conditions. The following provides an outline of conditions necessary based on the findings of the environmental assessment and to be used as guidance and updated during detailed and contract preparation.

In order to facilitate the most cost effect methods of achieving the appropriate environmental standards, it is recommended that these controls be implemented through performance specifications.

2. AIR QUALITY

2.1 Construction Requirements

The following recommendations relate to the control of construction dust and should be included in the LAPH lease conditions and subsequent construction contracts where appropriate:

- At the site boundary and nearby sensitive receivers, the concentration of total suspended particulates (TSP) shall not, as a result of operational (construction) activities, exceed $500 \mu\text{g}/\text{m}^3$ (1 hr) and $260 \mu\text{g}/\text{m}^3$ (24 hr).
- In order to comply with TSP limits as specified above, TSP levels shall be monitored according to a schedule and methods approved by EPD.
- In order to demonstrate compliance with the specified TSP limits the monitoring programme shall be audited according to a programme approved by EPD.
- Recommended environmental setbacks (Section 4 of this Report) for the development of land shall be observed.
- Height restrictions (50m) recommended for the development of industrial land in Penny's Bay reclamation shall be observed.
- A detailed method statement for proposed activities and appropriate action plans to be observed in the event of reaching or exceeding the environmental control levels (outlined in Section 14) shall be provided.
- An appropriately accredited and independent environmental laboratory and/or consultant shall be employed to undertake monitoring and audit work.
- All vehicles and plant shall be cleaned before passing from unpaved surface onto public or private roads to ensure no debris etc., is deposited.

- Areas within the site likely to create dust shall regularly be sprayed with water, and loads in transit covered.
- Speed limits on the site shall be established and adhered.
- Equipment shall be operated and maintained such that its use will not lead to deterioration in air quality.
- Dust abatement equipment shall be operated and maintained such that its efficiency is not impaired.
- undertake street sweeping where vehicles traverse populated areas.

2.2 Operational Requirements

Recommendations on air quality apply to any operations in relation to the container terminal, back-up areas and industrial land and should be included in lease or short term tenancy agreements as appropriate.

- At the site boundary and nearby sensitive receivers, the concentration of total suspended particulates (TSP) shall not, as a result of construction activities, exceed $500\mu\text{g}/\text{m}^3$ (1hr) and $260\mu\text{g}/\text{m}^3$ (24 hr).
- General site cleanliness shall be maintained through sweeping and employment of good site practice.

3. NOISE

3.1 Construction Requirements

Recommendations on construction noise limits, to be included in the LAPH lease conditions and subsequent construction contracts are as follows:

- Noise level limits (specified in Section 5 of this Report) shall not, as a result of construction activities, be exceeded.
- In order to comply with the noise limits specified in Section 5, noise levels shall be monitored at noise sensitive receivers during the construction phase by means of a EPD-approved monitoring programme. Monitoring should be carried out in accordance with the methodology specified in the Technical Memoranda to the Noise Control Ordinance.
- In order to demonstrate compliance with the specified noise limits the monitoring programme shall be audited according to a programme approved by EPD.
- An appropriate (and approved) sound level meter and associated equipment shall be maintained and kept on site;
- Silenced construction equipment shall be used where appropriate.
- All noise abatement equipment shall be operated and maintained such that its efficiency is not impaired.
- 'Noisy' activities and the use of 'noisy' equipment shall be restricted to daytime operating hours (0700-2300 hrs).

- Local communities shall be notified in advance of certain activities such as blasting.

3.2 Operational Requirements

The following recommendations apply to operation of the container terminal and back-up areas and should be included in the lease conditions as appropriate:

- Noise limits applying to operation of the terminal and back-up areas as defined in Section 5 must be observed and shall not be exceeded.
- A noise level specification should be included in the purchase or hire of contract documents for all equipment, to ensure that the equipment noise levels assumed in the assessment are complied with.
- All equipment noise control treatment should be properly maintained, so that acoustic performance is not degraded. If damaged to noise control equipment occurs, the equipment should not be used until repaired.
- To comply with the specified noise limits operational noise shall be monitoring and auditing as recommended in the environmental assessment and approved by EPD.
- Noisy activities such as cutting, hammering grinding and panel beating, should be prohibited between 2300 and 0700 hrs.

The following recommendations apply to operation of the industrial area buildings (including the serviced land) and should be included in the lease conditions for the individual developers of each site.

- Noise limits which apply to the operators of the Port (Section 5) shall be observed.
- The post-construction installation of any noisy external plant on building facades with line of sight to noise sensitive receivers shall be prohibited.

4. MARINE WATER QUALITY

4.1 Construction Requirements

The following recommendations apply to the LAPH reclamation and should be included in the LAPH lease conditions and the subsequent construction contracts;

- Marine mud extracted from areas to be dredged should not be dumped other than in dumping grounds as may be approved for the purpose by EPD and in accordance with the Dumping at Sea Act 1974 (Overseas Territories) Order 1975. No overflow or loss of fine material from dredgers or barges or other marine plant used for the removal of mud, whether in its original or in a diluted composition, should be permitted during the extraction or transportation of the dredged material to the approved dumping area.
- All necessary measures to ensure that deterioration of water quality caused by dredging and reclamation activities shall be kept to a minimum. The sequence and method of dredging and reclamation, and the design and method of employment of measures to prevent dredging, reclamation and any other operations from causing significant deterioration in water quality should be specified in the method statement. Any changes to the sequence or methods of dredging and reclamation during the works should be notified to EPD.
- To ensure compliance with WQOs, suspended solids and dissolved oxygen should be monitored according to a schedule and methodology approved by EPD.

- Surface run-off shall be settled prior to final discharge.
- Sediment loading to the receiving water body shall not result in a deterioration in water quality.
- Secure and bunded facilities shall be provided for the storage of fuels and chemicals.

4.2 Operational Requirements

The following recommendations apply to any operations on the LAPH reclamation and should be included in lease or short-term tenancy agreements as appropriate;

- The lessee should observe and comply with the conditions contained in the Technical Memorandum on Effluent Standards (Water Pollution Control Ordinance) whereby discharges will need to be licensed by EPD and may require treatment to a satisfactory standard before discharge to quantity and quality of discharges should be monitored and audited on a regular basis to check for compliance with the statutory limits.
- Discharges of effluents to stormwater drains shall be strictly prohibited.
- During maintenance dredging marine mud extracted from areas to be dredged should not be dumped other than in dumping grounds as may be approved for the purpose by EPD and in accordance with the Dumping at Sea Act 1974 (Overseas Territories) Order 1975. No overflow or loss of fine material from dredgers or barges or other marine plant used for the removal of mud, whether in its original or in a diluted composition, should be permitted during the extraction or transportation of the dredged material to the approved dumping area.
- All necessary measures shall be taken to ensure that deterioration of water quality caused by dredging and reclamation activities shall be kept to a minimum. The sequence and method of dredging and reclamation, and the design and method of employment of measures to prevent dredging, reclamation and any other operations from causing significant deterioration in water quality should be specified in the method statement. Any changes to the sequence or methods of dredging and reclamation during the works should be notified to EPD.
- Appropriate, secure and bunded facilities shall be provided for the storage of fuel and chemicals.
- A secure and contained facility shall be provided for the storage of leaking containers.

5. WASTE MANAGEMENT

5.1 Construction Requirements

The following recommendations relate to the storage and disposal of construction waste arisings and should be included in the lease conditions and construction contracts:

- The storage and disposal of all construction wastes shall be in accordance with good waste management practices and government requirements.

5.2 Operational Requirements

The following recommendations apply to the operation of the container terminal, and where appropriate, back-up areas, industrial land and North Shore Developments, to be included in the lease conditions as appropriate:

- Any storage facilities for operational wastes shall be secure and appropriately designed to prevent the escape of wastes.
- Appropriate reception facilities shall be provided for oily wastes, noxious liquids and garbage in accordance with the MARPOL convention.
- Appropriate reception facilities shall be provided for non-plastic refuse.
- The disposal of operational wastes shall be in accordance with good waste management practices and government requirements.

6. RISK

Recommendations on risk which apply to the operation of the container terminal and back-up areas and should be included in the lease connections are as follows:

- An Emergency Action Plan should be developed to ensure prompt and effective action to minimise the risk to workers in the event of a major incident on the container terminal involving DGs.
- Appropriate fire protection systems (water and foam) should be installed.

7. LIGHTING

7.1 Operational Requirements

The following recommendations apply to the operation of the container terminal, back-up areas and North Shore Development and industrial land and should be included in the lease conditions as appropriate:

- Lighting shall be designed to achieve the appropriate glare setting in accordance with the Highways Department's requirements.
- An assessment of lighting glare at nearby sensitive receivers and public roads shall be carried out during the first 18 months that a berth is in operation.
- The design and location of lighting should ensure that light is directed only where it is needed and be in accordance with the glare relating maxima given in Section 9 of this Report.

8. MONITORING AND AUDIT

8.1 Construction Requirements

The following recommendation on environmental monitoring and audit should be included in the LAPH lease conditions and subsequent construction contracts;

- Monitoring and audit should be carried out by an independent, qualified laboratory or consultant. Details of baseline, impact and compliance monitoring programmes, audit reporting schedules and action plans detailing the measures to be taken in the event of non-compliance should be specified in the method statement. The method statement should be prepared by the lessee or works contractor, as appropriate, using the recommendations on monitoring and audit provided in Section 14 of this Report for guidance.

8.2 Operational Requirements

Recommendations on environmental post-project auditing apply to the Container Terminal, back-up areas and the North Shore should be included in the lease conditions as follows:

- Operators of container terminal, back-up areas and industrial land shall observe all monitoring requirements and take remedial action where appropriate.
- An environmental post-project audit for Container Terminal and associated operations should be carried out in accordance with a programme approved by EPD. Independent auditors should be appointed and given access to all information relevant to the audit process.