Wan Bao Construction Limited

Environmental Instruction
Waste Management Plan
(EI-02)

Revision No. : 1
Date : 1 – 1 – 2006

Prepared by : Y.C. Chan

(EMR)

Approved by : K.T. Wong

(General Manager)

Revision History

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>Description</th>
<th>Sections Affected</th>
<th>Revised By</th>
<th>Approved By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/2006</td>
<td>First issue</td>
<td>-</td>
<td>-</td>
<td>KT Wong</td>
</tr>
</tbody>
</table>
1.0 Purpose

This instruction describes how to prepare and implement an enhanced Waste Management Plan (WMP) for individual construction project as required.

2.0 Scope

With reference to the Environmental, Transport and Works Bureau Technical Circular (Works) No. 15/2003: Waste Management on Construction Site, it sets out the policy and procedures requiring contractors to prepare and implement an enhanced Waste Management Plan (WMP) to encourage on-site sorting of Construction and Demolition (C&D) materials and to minimize the generation of waste during the course of construction. The requirements of this WMP apply to capital works contracts, including electrical and mechanical (E&M) contracts and Design and Build (D&B) contracts but excluding term contracts.

This instruction applies to construction project that a WMP is required by contract or as required by the Company’s initiative and commitment to waste reduction.

3.0 Procedure

3.1 If a WMP with specified format is required by the client, WBC shall prepare the WMP according to the contract requirements and relevant documents supplied by client.

3.2 If there is no specified format for the WMP from the client, WBC shall prepare the WMP according to the company guidelines as shown in Appendix 1 of this Instruction, which is provided for the purpose of reference. Project Manager shall determine the most suitable contents for the WMP based on the company guidelines and contractual requirements, whereas the stricter requirement shall be followed.

4.0 Monitoring and Checking

Project Manager shall responsible for the adequacy and suitability of the WMP and update it as necessary. Project Environmental Officer/Engineer shall maintain and follow the requirements of WMP to perform inspection or other monitoring programmes.

5.0 Records

<table>
<thead>
<tr>
<th>Record Description</th>
<th>Record Location / Retention Responsibility</th>
<th>Minimum Retention Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMP</td>
<td>Project Manager</td>
<td>3 years after the date of completion of project</td>
</tr>
</tbody>
</table>

6.0 Appendix

Appendix 1: Waste Management Plan (EF-EI02-01)
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>2.0</td>
<td>Waste Management Policy</td>
<td>4</td>
</tr>
<tr>
<td>3.0</td>
<td>Organizational Structure for Waste Management</td>
<td>4</td>
</tr>
<tr>
<td>4.0</td>
<td>Duties and Responsibilities</td>
<td>4</td>
</tr>
<tr>
<td>5.0</td>
<td>Legislation and Guidelines</td>
<td>4</td>
</tr>
<tr>
<td>6.0</td>
<td>Classification and Estimation of Construction &amp; Demolition (C&amp;D) Materials</td>
<td>5</td>
</tr>
<tr>
<td>7.0</td>
<td>Measures to Reduce / Minimize Generation of C&amp;D Materials</td>
<td>5</td>
</tr>
<tr>
<td>8.0</td>
<td>On-site Sorting, Storage and Disposal of C&amp;D Materials</td>
<td>6</td>
</tr>
<tr>
<td>9.0</td>
<td>Identification of Temporary Storage Areas</td>
<td>6</td>
</tr>
<tr>
<td>10.0</td>
<td>Arrangement for Collection of Recyclable Materials by Recycling Contractors</td>
<td>6</td>
</tr>
<tr>
<td>11.0</td>
<td>Mechanism for Recording C&amp;D Materials Removed Off Site</td>
<td>6</td>
</tr>
<tr>
<td>12.0</td>
<td>Inspection Programme</td>
<td>6</td>
</tr>
<tr>
<td>13.0</td>
<td>Provision of Training</td>
<td>6</td>
</tr>
</tbody>
</table>
1.0 Introduction

[Provide brief description of the project and any cross reference to any legal and other requirements / client’s documents, etc]

2.0 Waste Management Policy

[Insert Company’s Waste Management Policy in this section. Otherwise, if necessary, provide a specific waste management policy for this project.]

3.0 Organizational Structure for Waste Management

[Insert Company’s Organizational Structural for Waste Management in this section. Otherwise, if necessary, provide a specific organizational structural for this project.]

4.0 Duties and Responsibilities

[To refer the above organization structure, and briefly describe roles and environmental responsibilities of key project staff]

5.0 Legislation and Guidelines

[Refer to Company’s Register of Legal and Other Requirements (LR-01). If additional environmental legislations are identified, it shall inform relevant personnel to update the Legal Register.]

Legislative Requirements

- The Waste Disposal Ordinance (Cap354);
- The Waste Disposal (Chemical Waste)(General) Regulation (Cap354);
- The Land (Miscellaneous Provisions) Ordinance (Cap28)
- The Public Health and Municipal Services Ordinance (Cap132) – Public Cleansing and Prevention of Nuisances
- The Storage, handling and disposal of chemical waste should be audited with reference to the requirements of the Code of Practice on the Package, Labeling and Storage of Chemical Wastes published by the EPD; and
- The Dumping at Sea Ordinance (Cap466)

Additional Guidelines

- Waste Disposal Plan for Hong Kong (December 1989), Planning, Environmental and Lands Bureau, Hong Kong Government Secretarial;
- Environmental Guidelines for Planning in Hong Kong (1990), Hong Kong Planning Standards and Guidelines, Hong Kong Government;
- New Disposal Arrangements for Construction Waste (1992), Environmental Protection Department and Civil Engineering Department;
6.0 Classification and Estimation of Construction & Demolition (C&D) Materials

[Insert relevant types of C&D materials and in addition with their estimated quantities throughout the period of project. An example of Waste Flow Table (WFT) can be applied to this section]

Waste Flow Table (WFT)

<table>
<thead>
<tr>
<th>Type of C&amp;D Material</th>
<th>Estimated QTY (m³)</th>
<th>Duration of C&amp;D Material Generation</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inert Portion of C&amp;D Material (Public Fill)</td>
<td>Nil</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Surplus public fill to be delivered to public filling facilities</td>
<td>Nil</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Non-inert portion of C&amp;D Material (C&amp;D Waste)</td>
<td>Nil</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>C&amp;D waste to be recycled</td>
<td>Nil</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>C&amp;D waste to be reused</td>
<td>Nil</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7.0 Measures to Reduce / Minimize Generation of C&D Materials

[To list out the work processes or activities that will generate C&D materials during construction and the proposed measures to reduce/minimize such generation in particular metallic waste, timber, paper/cardboard packaging and chemical waste]

1. General Refuse
2. Reuse
3. Recycling

8.0 On-site Sorting, Storage and Disposal of C&D Materials

[The Company shall devise a system of work for on-site sorting of C&D materials. The system shall include the identification of the source of generations, estimated quantity, arrangement for on-site sorting and/or collection, temporary storage areas, frequency of collection by recycling contractors or frequency of removal off site, etc]

1. Excavated Materials
2. Construction and Demolition materials
3. Chemical Waste
4. General Refuse

9.0 Identification of Temporary Storage Areas

[The Company shall identify and provide sufficient space for the temporary storage of C&D materials to facilitate collection and/or sorting on the site]

10.0 Arrangement for Collection of Recyclable Materials by Recycling Contractors

[The Company shall make arrangements with potential recycling contractors to facilitate that recyclable materials sorted from the site and record the quantities of all the recyclable materials before removal off sites]

11.0 Mechanism for Recording C&D Materials Removed Off Site

[The Company shall establish a disposal recording system similar to the trip-ticket system or alike, to ensure proper disposal of C&D materials]

12.0 Inspection Programme

[The Company shall arrange a regular inspection programme to monitor the implementation of this WMP]

13.0 Provision of Training

[The Company shall make his own arrangement training programme/plan for all relevant project staff, e.g. Environmental Manager / Foremen / Operation Staff / Site Agent, etc]