

# **CHAPTER 2**

## **METHODOLOGY**

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The study was carried out in stages in line with the EMS requirements. The stages are as follows:

- Site environmental audit
- Management Review Exercise
- Discussions with top management on actions to mitigate some negative issues
- Designing / Planning a Preliminary EMS for MHSB

### **2.1 SITE ENVIRONMENTAL AUDIT**

A site environmental audit (modified from UNEP, 1995) was drafted and used to obtain information on the activities carried out at the site. The site audit was also used to identify and assess the environmental impacts resulting from MHSB's activities. A sample of the initial environmental audit is given in Appendix 1. This audit was carried out through site surveys and interviews with each unit head and respective employees.

A study of MHSB's legal and other obligations were also included in this audit. A review of the current environmental legislation and regulations in Malaysia and other Government Acts which governs MHSB's compliance are listed.

## **2.2 MANAGEMENT REVIEW EXERCISE**

A management review exercise was carried out through interviews with the top management and the unit heads to assess the status of management of the company in areas such as employee's environmental awareness, documentation, the types of training provided and the communication system between the top management and the employees.

## **2.3 DISCUSSIONS WITH THE TOP MANAGEMENT ON ACTIONS TO MITIGATE SOME NEGATIVE ISSUES**

Results of the site audit and the management review exercise were tabulated and analyzed. The results were presented to MHSB's top management and discussions were carried out on how to mitigate certain negative issues brought up from the audit and management review.

## **2.4 DESIGNING / PLANNING A PRELIMINARY EMS FOR MHSB**

A preliminary EMS was designed to suit the ISO 14001's requirements and discussions were based on the five principles of ISO 14001 as follows:

#### **2.4.1 PRINCIPLE 1 COMMITMENT AND POLICY**

Discussions and brainstorming with MHSB's top management were carried out to agree upon an environmental policy.

#### **2.4.2 PRINCIPLE 2 - PLANNING**

Some of MHSB's environmental objectives and targets were identified from interviews with the top management and these were further refined and developed into a formal set of environmental objectives. Indicators and target dates were established to fulfill these objectives.

An Environmental Management Program was also drafted. A schedule of activities were drawn up to achieve the above environmental objectives and responsibilities were assigned to each unit to carry out their individual program.

#### **2.4.3. PRINCIPLE 3 IMPLEMENTATION**

Suggestions were recommended for MHSB on how to implement the environmental management system. These implementation suggestions were to be approached in stages and depending on the level of awareness of environmental requirements, aspects, expectations and benefits, and the availability of financial resources of the company.

#### **2.4.4. PRINCIPLE 4      MEASUREMENT AND EVALUATION**

A system for measuring and monitoring actual performance against the organization's environmental objectives and targets in the area of management systems and operational processes were formulated. This included evaluation of compliance with relevant environmental legislation and regulations. The result will be used to determine areas of success and to identify activities requiring corrective action and improvement.

#### **2.4.5. PRINCIPLE 5      REVIEW AND IMPROVEMENT**

A continual review and improvement process was developed which would :

- identify areas of opportunity for improving the environmental management system;
- determine the root cause or causes of non-conformance or deficiencies;
- develop and implement a plan of corrective and preventive action to address root causes;
- verify the effectiveness of the corrective and preventive actions;
- document any changes in procedures resulting from process improvement; and
- make comparisons with objectives and targets.

All of the above was carried out using an environmental management system audit checklist (UNEP, 1995). A copy of this questionnaire is appended in Appendix 6.

A time-table of this project is shown in Table 2.1.

Table 2.1 Project Time Table

Time (Weeks)												
Item	1	2	3	4	5	6	7	8	9	10	11	12
Preparation of Site Audit Checklist												
Auditing MHSB site												
Data tabulation of audit results												
Management Review Exercise												
Discussions with MHSB's top management												
Drafting / Designing the EMS												
Finetune the EMS												
Final write-up of the EMS												