# SECTION E1- ASPECT / IMPACT IDENTIFICATION, RISK ASSESSMENT & CONTROL

## OBJECTIVE

To identify environmental aspects and impacts arising out of the organization's operations, conduct a risk assessment of the identified aspects and impacts and initiate actions to eliminate or minimize the risk.

## RESPONSIBILITIES

The Director-in-Charge or QE Manager is the Owner of this procedure and has overall responsibility and authority for its establishment and maintenance. Department Heads shall be responsible for the successful implementation of this procedure.

## DEFINITIONS

1. Environmental aspect - Element of an organization's activities or products or services that can interact with the environment.

2. Environmental impact - Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects.

3. Detectability – Ability to detect a failure before it causes harm. Detectability ensures that potential or actual failures can be identified with enough time to take action before the internal or external parties are adversely affected.

## PROCEDURES

### 1. Aspects Identification

1.1 Department representative shall list all activities, products or services including routine and non-routine processes for each work location.

1.2 Activities, products and services may be grouped such that those with similar characteristics can be evaluated concurrently.

1.3 While identifying environmental aspects, the following shall be considered:

(a) Emissions to the atmosphere
(b) Discharges to water or sewers
(c) Wastes, especially hazardous wastes
(d) Land, soil or ground water contamination
(e) Use of water, energy and other natural resources
(f) Creation of noise, odor, dust, heat or other nuisance

(g) Any other effects on specific parts of the environment

1.4 The possible impacts from the aspects identified shall be illustrated.

**2. Risk Evaluation**

2.1 Department representative shall identify the existing risk control measures in place for the aspects identified by considering the following:

(a) The score for detectability, severity and likelihood for the aspects shall be determined based on the guidelines illustrated in Table 1: Environmental Risk Assessment Scoring Matrix in Evaluation Criteria for Environmental Risk Assessment (Form E1.A). The risk level of each of the aspect identified shall be computed by multiplying delectability, severity and likelihood.

(b) The identified aspects and the associated risks shall be recorded into the Environmental Risk Assessment Form (Form E1.B)

**3. Risk Control**

3.1 The QE Manager shall assess the tolerability of risk using guidelines in Table 2 (Form E1.A), determine the significant environmental aspects and record in the ***Environmental Risk Assessment Form (Form E1.B).***

3.2 Additional risk control measures to eliminate or minimize the significant risks shall be taken with action leaders identified. Environmental programs shall be developed in accordance to Procedure E3: Objectives, Targets and Programs.

3.3 Evaluation of compliance to legal and other requirement for each aspect shall be identified.

**4 Management of Change**

4.1 Department representative shall establish, review and update the information relating to environmental aspects and risks prior to the introduction of such changes as and when:

(a) there is a change or proposed change in the organization, activities, product or services.

(b) there is a change in legal requirements that affect or may affect the activities, product or services.

(c) there is a change to the environmental management system, including temporary changes, and their impacts on operations, processes and activities.

(d) new infrastructure, equipment, materials, activities, products or services are introduced.

(e) there is a new knowledge based on environmental incidents occurrence or other sources.

(f) advised by the management.

**5 Review of Aspects**

5.1 The entire risk assessment process shall be reviewed or revised at least once every 3 years.

5.2 Department representative shall inform the QE Manager, employees or any other persons at the workplace of changes in the environmental aspects as well as revision in the risk assessments.

**REFERENCE**

**Form E1.A - Evaluation Criteria for Environmental Risk Assessment**

**Form E1.B - Environmental Risk Assessment Form**