



CS ENERGY PROCEDURE FOR
ENVIRONMENTAL ISSUE IDENTIFICATION
CS-EMSP-1

Responsible Officer: Portfolio Environment Manager

Approved: GM Portfolio Services

Contents

1. Purpose
2. Scope
3. Actions
 - 3.1 Select the main plant areas to be surveyed
 - 3.2 Preparation required prior to sessions
 - 3.3 Select and describe activities or processes
 - 3.4 Identify the cause of an Environmental Issue associated with an activity
 - 3.5 Describe the environmental issues
 - 3.6 Determine the effects (impacts) of environmental issues
 - 3.7 Determine the significance of environmental issues
 - 3.8 List operational controls for each environmental issue
 - 3.9 Enter environmental issues, effects and controls into EIR
 - 3.10 Determine Priority Issues
 - 3.11 Produce Environmental Issue Management Plans for priority issues
4. Responsibilities
 - 4.1 General Managers
 - 4.2 Risk Facilitators
 - 4.3 Portfolio Environmental Managers
 - 4.4 Site Environmental Coordinator
 - 4.5 Employees and Contractors
5. Review
6. Auditable Outputs
7. Definitions
8. Reference Documentation
9. Attachments
10. Document History

1. Purpose

The purpose of this document is to provide a process to:

- Identify the environmental issues associated with CS Energy's activities; and
- Determine if the effects (impacts) of these activities are significant.

This process allows the documentation of the issues and the assessment of their significance via the risk assessment process in the Environmental Issues Register (EIR).

The purpose of identifying environmental issues is to ensure that these activities are assessed and incorporated into the Environmental Management System (EMS).

For more detail refer to the EMS Manual, Section 6.1

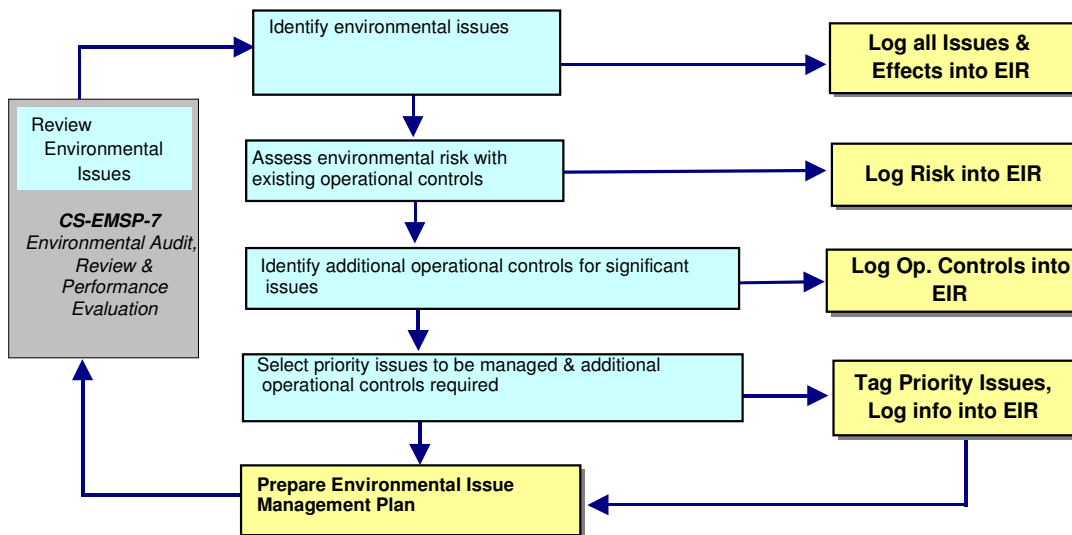


Figure EMSP-1: Environmental Issues Identification Flow Diagram.

2. Scope

This applies only to identification of environmental issues, determination of issue significance, issue priority and compilation of information for the formulation of Environmental Issue Management Plans.

3. Actions

Please note that this procedure only details the process for identification, risk assessment and management of environmental issues. The use of the EIR is an integral part of this process. Please refer to Section 6 of the EMS Manual for a description of the EIR and to the EIR User Manual for guidance in its use.

3.1 Select the main plant areas to be surveyed

As a guide to selecting a plant area, use the following criteria:

- Legal exposure (e.g. compliance with environmental approvals);
- Potential environmental impact;
- Complaints - internal / external; and
- Economic value in modification.

These criteria closely follow the assessments used to identify priority issues.

3.2 Preparation required prior to sessions

Gather information in accordance with the Environmental Issues Review Process (refer to CS-EMSP-7 Section 3.5).

3.3 Select and describe activities or processes

The entire operation of the organisation must be broken down into processes or activities that are large enough for meaningful examination, but small enough to be sufficiently understood.

Each process or activity must be described with sufficient detail to make visible the areas of interaction (actual or potential) with the environment. This is likely to include documenting the source and destination of resources and waste products, as well as noting quantities (where appropriate).

It is important to consider not only normal operating conditions for the plant but also plant start up and shut down, abnormal operating conditions and credible emergency scenarios when identifying activities or processes.

3.4 Identify the cause of an Environmental Issue associated with an activity

For an environmental issue to arise there must be a "cause". This can be an action, function of the process or a daily occurrence that will impact on the environment in a positive or negative way.

Often the cause of an environmental issue at one activity may be similar to that at another. For example spillage can be associated with oil storage, petroleum storage, ash tankers or an ash disposal area. All of these activities may be associated with the same "cause". Therefore the cause of an environmental issue is confined to a list of common terms that can be for various activities.

3.5 Describe the environmental issues

The environmental issue description must contain sufficient detail such that the description is understood by the participants.

When entered into the Environmental Issues Register, the environmental issue is attributed to an activity.

3.6 Determine the effects (impacts) of environmental issues

The effects of an environmental issue may be:

- Actual or potential; and
- Positive or negative.

A particular effect may involve a *contaminant* and an *environmental value*.

In order to properly understand the effects of the significant issues raised by the risk assessment process, a more detailed effect description may be required.

3.7 Determine the significance of environmental issues

The significance of environmental issues is determined by using the risk assessment questions (environmental consequence and likelihood) contained in the Environmental Issues Register, to determine an environmental risk rating.

The risk matrix used within the database has been developed in accordance with CS Energy's Risk Management Policy and Procedure.

The risk matrix includes prompts for consideration of legal and regulatory drivers when determining issue significance. Users are encouraged to utilise the Environmental Legal Compliance Manual (ELCM) when determining the legal significance of environmental issues. Volume 2 of the ELCM contains a table that links ELCM categories with relevant EIR environmental values.

Currently a risk rating of *significant or above* is used as a cut-off to determine issues which form the site's list of significant aspects as defined in the ISO14001 standard.

Issues assessed as *significant or high* shall be managed through risk plans within the Risk Opportunity Management System (ROMS).

Issues assessed as *low or moderate* are managed through the Environmental Issues Register (EIR).

3.8 List operational controls for each environmental issue

Operational controls are identified and listed for all environmental issues. Operational control information is to be described to a sufficient level of detail such that it summarises *how* or *what* manages the issue's impacts. When describing operational controls the following should be listed where appropriate:

- Preventive plant maintenance;
- Work practices;
- Monitoring and measurement;
- Training/awareness;
- Inspections/audits;
- Control under Permit-to-work;
- Procedure;
- Design control;
- Alarms/PACMS/ICMS;
- Administrative controls; and/or
- Behavioural controls.

3.9 Enter environmental issues, effects and controls into EIR

All Issues are to be logged into the EIR with information collected during sessions and by other means.

The type of information required will include at a minimum:

- Environmental issue = activity, cause and description;
- Impacts/effects;
- Operational controls; and
- Risk assessment results.

3.10 Determine Priority Issues

The Portfolio Environmental Manager and Environmental Coordinators will determine which issues are to be denoted as a priority by considering the list of issues rated as *high* and *significant* with existing operational controls.

Issues are to be denoted as priority (enter in the EIR) where they are associated with:

- Current policy, goals, targets; and/or
- Current legal obligations (refer to Environmental Legal Compliance Procedure CS-EMSP-5).

Significant issues not progressed as priority issues (and low / moderate rated issues) will be those judged as having an acceptable residual risk through existing operational controls, including procedures and training.

Priority issues may also arise where additional operational controls are easy and/or quick to apply, thereby controlling the risk, or where the issue will be addressed through planned actions driven by other (non-environmental) factors.

3.11 Produce Environmental Issue Management Plans for priority issues

Development of these plans is to be done in accordance with the Developing Environmental Planning Procedure CS-EMSP-2.

4. Responsibilities

4.1 General Managers

- Allocating resources for implementation of issue management plans.

4.2 Risk Facilitators

- Review identified issues in accordance with Corporate Risk Management Policy & Procedure.
- Develop risk management plans within ROMS.

4.3 Portfolio Environmental Managers

- Ensure that environmental risk assessment/management technique is in agreement with current company policy.

4.4 Site Environmental Coordinator

- Ensure that the Environmental Issues Register for the site is maintained and updated in accordance with review requirements.
- Provide technical advice relating to environmental issues.

4.5 Employees and Contractors

- Identifying the environmental issues within their plant area and implementing actions nominated.

5. Review

The items listed below are reviewed as described in CS-EMSP-7 Environmental Audit, Review & Performance Evaluation:

- The Environmental Issues Review initiates this document.
- The EMS Audit Program encompasses the checking of this document to ensure it is appropriate and being followed correctly.
- Corporate Business Management System – Risk Management Process reviews the outputs of this procedure.

6. Auditable Outputs

The following items are outputs of this procedure:

- Environmental Issues Register
- Environmental Issue Management Plans

7. Definitions

Definitions to the following are found in the EMS Manual Glossary: activity, cause, environmental issue, effects, EIR (Environmental Issues Register), contaminant, goals, targets, environmental value and significance.

8. Reference Documentation

| CS Energy / General | QA Doc No. | Location |
|--|------------------------------|--------------------------------|
| EMS Procedure – Developing Environmental Planning | EMSP-2.doc | K:\Corprocs1\Environment |
| EMS Procedure – Environmental Legal Compliance | EMSP-5.doc | K:\Corprocs1\Environment |
| EMS Procedure – Environmental Audit, Review & Performance Evaluation | EMSP-7.doc | K:\Corprocs1\Environment |
| Risk Management Policy | Risk Mgt Policy.pdf | K:\Corprocs1\CorporatePolicies |
| Risk Management Procedure | Risk Mgt Proc.doc | K:\Corprocs1\Governance |
| Environment Policy | Environment Policy Jan10.pdf | K:\Corprocs1\CorporatePolicies |
| AS/NZS ISO 14001: EMS | N/A | Environment Section |
| AS/NZS 4360: Risk Management | N/A | Environment Section |

| | | |
|--------------------------------------|----------------|---|
| Environmental Issues Register (EIR) | N/A | SQL Server |
| Environmental Issue Management Plans | N/A | Environmental Issues Register/Environment Section |
| EIR User Manual | EIR_Manual.doc | K:\Corprocs1\Environment |

9. Attachments

None

10. Document History

| Issue Date | Nature of Changes |
|------------|--|
| 27.1.1999 | Original Issue |
| 17.5.2000 | Update responsibilities, modified Section 3.10 |
| 3.7.2000 | Minor Editing |
| 28.8.2000 | Diagrams added |
| 16.11.2000 | Added Review and Auditable Outputs |
| 24.11.2000 | Minor editorial changes |
| 16.02.2001 | Referenced EMSP-5, Updated document history |
| 17.12.2001 | Expanded Section 3.10, minor editing of Section 4.2 |
| 18.11.2002 | Modified Figure EMSP-1, Section 3.3 amended to include non-normal operating conditions, Section 3.8 changed to make consistent with EIR, minor editing. |
| 25/11/2003 | Deleted 3.11, improved referencing of EIR, edited to conform with revised EIR functionality |
| 04/06/2005 | Clarification of Section 1 Purpose; changes to Figure EMSP-1 logic; minor editing; document owner; update Reference Documentation including reference to CPM Env Mgt Implementation Plan. |
| 19/04/2006 | Update to ISO 14001:2004; clarification and amendment to Section 3.8; update organisational titles; include contractors in Section 4.5; minor editing. |
| 6/07/2009 | EPA replaced with DERM; s. 3.7 amended to specify relationship between ELCM and environmental issue identification in EIR; references to site-specific documentation removed; references to 'licence' or 'authority' changed to 'approval'; update organisational titles; minor editing. |