



CS ENERGY PROCEDURE FOR
**ENVIRONMENTAL AUDIT, REVIEW & PERFORMANCE
EVALUATION
CS-EMSP-7**

Responsible Officer: Portfolio Environment Manager

Approved: GM Portfolio Services

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1. Purpose

To outline the requirements for producing environmental performance reports in accordance with the International Environmental Performance Evaluation Standard (ISO 14031:2000), which is the direction CS Energy is heading with its environmental reporting.

This document defines the reviews that are to be performed and their frequency.

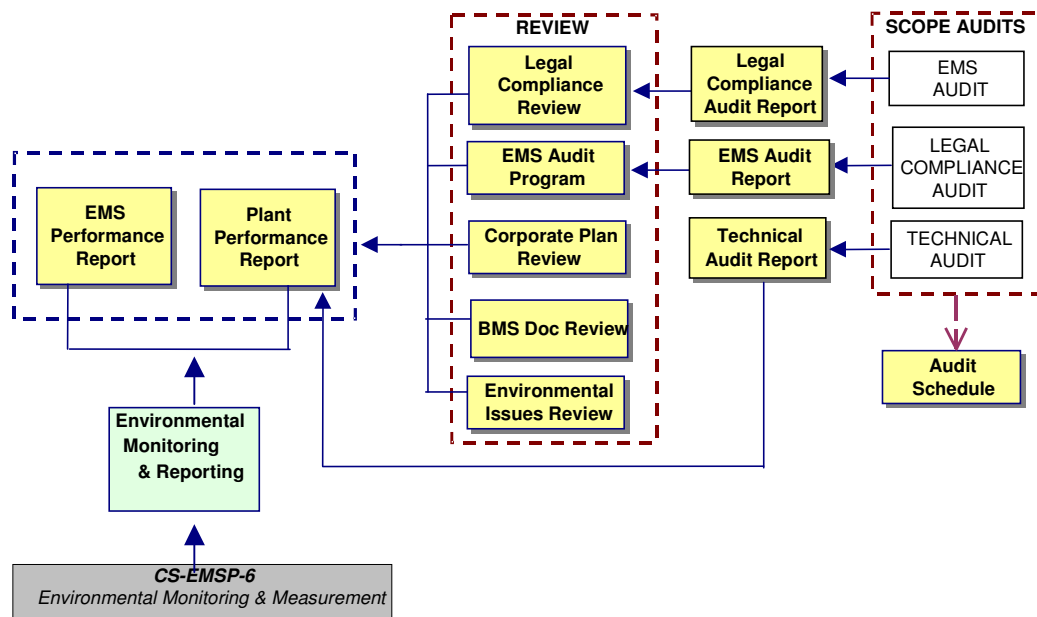


Figure EMSP-7: Environmental Audit, Review & Performance Evaluation flow diagram.

2. Scope

This procedure applies to the performance of the Environmental Management System and business operations (plant and equipment). The outputs from this procedure support the EMS.

This procedure outlines the performance indicators to review CS Energy's stated Environment Policy, goals and targets.

3. Actions

The instructions that follow focus on collecting information for measuring:

- Environmental Management System Performance; and
- Plant Environmental Performance.

This information is monitored and measured through EMS Procedure CS-EMSP-6: Environmental Monitoring and Measurement and the summary document, Environmental Monitoring and Reporting schedule.

3.1 Environmental Auditing and Audit Reports

3.1.1 Audit Scope

Three types of audits will be conducted at CS Energy sites:

1. **Environmental Legal Compliance Audits** will assess the current compliance status of the organisation. The scope of a legal compliance audit may include Environmental Authority requirements and other pertinent legislation. Legal compliance audits are conducted at a frequency approved by the Board Audit Committee, usually at least every three years.
2. **Environmental Management System Audits** will review environmental issues on site and the effectiveness of the EMS at managing these. The audit should consist of a document review or desktop audit conducted in combination with an implementation or operational audit. They can be conducted internally by CS Energy staff or externally by certified EMS auditing professionals. Where possible audit reports should present findings in a manner allowing easy updates to CS Energy documents and systems (e.g. specify activity and risk for environmental issues).
3. **Technical audits** may be requested at any time and should coincide with an information request for a particular environmental issue.

Audits are to be entered into an audit schedule. The minimum content of the schedule is to be:

- Type of audit;
- Dates for audit - start and completion; and
- Staff involved.

3.1.2 Auditor Requirements

External Environmental Auditors should have:

- Relevant knowledge and experience (e.g. legal qualifications or process knowledge);
- Previous auditing experience; and
- Registration as an environmental compliance auditor with a recognised auditor registration body.

Internal Environmental Auditors should have:

- Relevant training in audit techniques and protocols; and
- Relevant knowledge and experience.

3.1.3 Managing Audit Results

Results of audits must be managed according to the following criteria:

- The issue identified from the audit is entered into the EIR and risk assessed accordingly; and
- Also, where appropriate, an Improvement Request (IR) or Risk Management Plan (RP) is entered into ROMS.

All audit reports are to be filed and maintained as an official file and details of the audit entered into the ROMS database.

3.2 Environmental Monitoring & Reporting Schedule

The Environmental Monitoring and Reporting Schedule involves the collation of information required for producing reports and monitoring environmental performance and impact.

The process occurs at both the corporate and site level, and includes consideration of:

- Environmental approval monitoring and reporting requirements;
- External reporting requirements e.g. annual environmental approval reporting, Quarterly Report to Shareholding Ministers, National Pollutant Inventory (NPI), National Greenhouse Energy Reporting Act requirements (NGERA);
- Requirement for external environmental reporting; and
- Internal reporting requirements e.g. monthly environmental report.

The Information collated considers the requirements for monitoring and reporting:

- Operational Plant Performance (Refer to Section 3.3); and
- Management System Performance (Refer to Section 3.4).

3.3 Plant Performance Reporting

The main plant (operational) Environmental Performance Indicators (EPIs) that are measured relate to by-products of the company's operations e.g. contaminants such as CO, CO₂, NO_x, particulates, oil etc. These indicators are used to determine how the business operations are impacting on the environment.

Plant performance reporting includes measurement of indicators related to the plant or processes making up the business and indicators which are related to the condition of the environment which may be impacted upon.

To determine what performance monitoring should be done, reference is to be made to:

- Environmental Issues Identification Procedure (CS-EMSP-1).
- Environmental Planning Procedure (CS-EMSP-2).
- Environmental Issues Review (Section 3.7 of this procedure).
- Environmental Auditing and Audit Reports Procedure (Section 3.1 of this procedure).

The following plant indicators should be considered:

- Parameters required by environmental authorities;
- Parameters associated with impact monitoring programs;
- Indicators associated with significant issues or current targets, i.e. check the EIR; and
- Performance indicators required by external bodies, Shareholders, agreements, etc.

3.4 EMS Performance Reporting

Management performance indicators are used to measure how well the management system is functioning and identify areas for continual improvement. Reporting on the management system performance is a function of the Environmental Management System (EMS) audit and Environmental Performance Indicators (EPIs) information collected by management systems.

The following management EPIs could be considered:

- Number of internal EMS audits performed in reporting year;
- Number of external EMS audits performed in reporting year and number of major non-conformances;
- Number of incidents/complaints received and number outstanding;
- Percentage of actions from EMS audits entered into ROMS;
- Number of significant issues from EIR entered into ROMS;
- Number of actions initiated and percentage closed;
- Targets - number in operation and number closed;
- Goals - goals set and description of status;
- Compliance audits: number completed;
- Number of significant environmental issues identified in the reporting year; and/or
- Number of Environmental Issue Management Plans completed.

3.5 Conduct Reviews

The following summarises the various review processes that occur under the EMS or other management systems. A short description is supplied to assist in defining what needs to be done or achieved from each of the processes.

3.5.1 Environmental Issues Review

Environmental Issues are to be reviewed at least once per year as part of the Business Planning Process or as determined appropriate by the Portfolio Environmental Managers and Site Environmental Coordinators. A reminder can be set within the SAP Routine Tasks module for this review to take place.

The aim of this review is to:

- Identify new issues;
- Reassess all issues currently identified to verify the risk level and that the operational controls are adequate;
- Review the status of actions in the Environmental Issue Management Plans; and
- Identify areas for continual improvement.

Issues and their management are reviewed by collating information such as:

- Department of Environment and Resource Management (DERM) environmental approval conditions;
- DERM environmental approval annual return;
- Issues arising from Environmental Coordinator meetings;
- Issues arising from Management Review/Management Team/Workgroup Coordinators meetings;
- Issues identified from existing plant refurbishment/operations;
- Plant walkarounds;
- Plant/activity environmental audits;
- Status of any Environmental Issue Management Plans;
- Status of any Environmental Management Programmes (submitted to the DERM);
- Requirements of any Operation and Maintenance Environmental Management Plans e.g. CPM Environmental Management Implementation Plan;

- Annual summary of EIR information (issues, risks, incidents, complaints);
- Information from the Business Management System Risk Identification process;
- Changes to legislation or other requirements; and
- Relevant policy, goals and targets.

The review follows the Environmental Issues Identification procedure.

Outcomes required:

- An Environmental Issues Register which is up to date; and
- Production of Environmental Issue Management Plans.

3.5.2 Environmental Management System Audit Program (internal & external)

The aim of these audits is to:

- Assess staff awareness of policy and goals;
- Determine the appropriateness of targets and the ability to achieve them;
- Alignment of system and documentation with ISO 14001;
- Assess conformance with arrangements in the EMS; and
- Determine whether the EMS has been properly implemented and maintained through auditing operational controls.

Outcomes required:

- Audit reports; and
- Issuing of Improvement Requests.

Internal audits will be carried out at a frequency determined by the Portfolio Environmental Manager. In developing the internal audit schedule (Form SOO13), consideration should be given to:

- Recent audit findings;
- Issues in EIR;
- ROMS;
- High risk activities (e.g. overhauls); and
- Covering most of the ISO 14001 system elements each year.

Auditing will be conducted in accordance with Section 3.1 of this procedure and the EMS audit schedule. An EMS audit guide has been developed to aid consistency of internal audits (see references).

3.5.3 Legal Compliance Review

The aim of this review is to:

- Determine compliance with legal requirements by conducting a Legal Compliance audit;
- Ensure legal compliance audit findings are integrated with the Environmental Issues Review; and
- Ensure that the EMS Procedure CS-EMSP-5 Environmental Legal Compliance is being followed.

Outcomes required:

- Audit reports; and
- Issuing of Improvement Requests.

Auditing will be conducted in accordance with Section 3.1 of this procedure and the EMS audit schedule.

3.5.4 Environmental Strategy Review

The aim of this review is to:

- Review consistency with the CS Energy Environment Policy;
- Report on the status of targets and goals;
- Identify new targets and revise goals for the organisation / site; and
- Conduct a SWOT analysis.

Outcomes required:

- Policy, goals and targets modified (refer CS-EMSP-2 Developing Environmental Planning); and
- All EIR, publications, training material etc. modified accordingly.

This review is to be done prior to or as part of the Corporate Planning process. Refer to the CS Energy Business Management System for details.

3.5.5 CS Energy Business Process Documentation Review

The relevant aim of this review is to:

- Check conformity (*cf* compliance) of system with ISO 9001;
- To ensure documentation is up to date; and
- Achieve continual improvement of the Business Management System.

Refer to the CS Energy Corporate Audit schedule for details.

Outcomes required:

- Audit reports; and
- Issuing of Improvement Requests.

3.5.6 Environmental Management System Review

Management review of the EMS, including review of processes performed by the organisation, is covered in Section 10.1 of the EMS Manual.

The Portfolio Environmental Manager is responsible for development, implementation and maintenance of the EMS across all sites, and reviewing the Corporate EMS Manual and Procedures in consultation with Site Environmental Coordinators.

The Site Environmental Coordinators are responsible for site development, implementation and maintenance of the EMS and for reviewing site environmental procedures.

Management Review of the EMS shall be carried out by power station site and corporate office management teams at planned intervals to ensure its continuing suitability, adequacy and effectiveness.

The agenda should consider, by exception, at least the following items:

- Internal and External Audits or Reviews – findings from audits and planned actions to address, including site-based Environmental Issue Reviews.
- Compliance with Legal and Other Requirements – findings from audits, reviews and evaluations
- Communications from External Parties including Complaints
- Environmental Performance of CS Energy in general including review of environmental monitoring results
- Performance Against Objectives and Targets – (see above item also) and their continuing suitability and implementation
- Corrective and Preventive Actions – status
- Changes to Legislation and Other Requirements affecting CS Energy environmental performance
- Improvement Initiatives for the EMS
- Outstanding Action Items - from previous Management Review Meetings

In addition, the following matters should be reviewed as required:

- Training and Awareness requirements; and
- Emergency Preparedness and Response - outcomes from incidents relevant to emergency preparedness and response.

4. Responsibilities

4.1 Line Managers

- Implementation of the EMS in their areas of responsibility.

4.2 Portfolio Environmental Managers

- Initiate appropriate review processes.
- Coordinate the production of any Environmental Information and associated data.
- Development, implementation and maintenance of Corporate EMS.
- Development and maintenance of EMS across all sites.

- Review of Corporate EMS Manual and Procedures.

4.3 Site Environmental Coordinator

- Collection of specific performance data.
- Review of site environmental issues.
- Site development, implementation and maintenance of the EMS.
- Review of site environmental procedures.

4.4 Employees and Contractors

- Following site procedures including Environmental procedures in accordance with the site EMS.

4.5 Internal Auditors

- Conduct Internal Audits as per audit schedule.
- Raise Improvement Requests.

5. Review

The EMS Audit Program encompasses the checking of this document.

6. Auditable Outputs

The following items are outputs of this procedure:

- Environmental Audit Schedule;
- Internal Audit Reports; and
- Recommendations logged into ROMS and subsequently closed-out.

7. Definitions

Definitions to the following are found in the EMS Manual Glossary: environmental issue, effects (impacts), EIR (Environmental Issues Register), contaminant, goals, targets, significance, EPIs, Environmental Issue Management Plans.

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 Monitoring & Measurement	EMSP-6.doc	K:\Corprocs1\Environment
AS/NZS ISO 14031: Environmental Management - Environmental Performance Evaluation - Guidelines	N/A	Environment Section
EMS Internal Audit Schedule		Environmental Coordinator
EMS Internal Audit Schedule	S0013	K:\Template
EMS Internal Audit Guide	NA	K:\Corprocs1\Environment
Internal Audits	CS-AUD-1	K:\Corprocs1\Governance\Risk
Management Responsibilities	CS-MR-1	K:\Corprocs1\Governance\Risk

9. Attachments

None

10. Document History

Issue Date	Nature of Changes
27.1.1999	Original Issue
17.5.2000	Updated responsibilities
3.7.2000	Expanded Section 3.1 re auditors. Section 3.5, added EMS review
28.8.2000	Added diagram
17.11.2000	Added Review and Auditable Outputs sections
24.11.2000	Minor editorial changes. Clarified Section 3.5: EMS Review responsibilities
16.02.2001	Updated document history. Included Annual Return in Environmental issues review
17.12.2001	Expanded Section 3.5 EMS Audit Program and EMS Review. Updated Swanbank & Mica Creek document references
18.11.2002	Revision to Section 1, removal of reference to EMRO, Section 3.1 interval for legal compliance audits specified, reworded Section 3.1 re managing results of audits, editing of Section 3.2 to remove requirements for EMRO, expansion of Section 3.5 re factors driving review of issues, minor changes to titles, minor editing.
25/11/2003	Update content to reflect current processes and terminology.
06/06/2005	Section 3.5 – requirements for Management Review of EMS; Section 4 – Responsibilities – clarification of responsibilities, inclusion of responsibilities of Line Managers and employees; document owner; updated Reference Documentation including reference to CPM Env Mgt Implementation Plan; minor editing.
19/04/2006	Update to ISO 14001:2004; clarification and amendment to Section 3.4 wrt EPIs; clarification and amendment to Section 3.5 wrt scope of internal audit program, referencing of EMS Manual under EMS review and amendment to management review requirements; update organisational titles; include contractors in Section 4.4; minor editing.
6/07/2009	EPA replaced with DERM; references to site-specific documentation removed; sub-headings added to s. 3.1 and 3.5; references to 'licence' or 'authority' changed to 'approval'; reference to SAP Routine Tasks Module added to s. 3.5.1; 'compliance' changed to 'conformity' to ISO 9001 in s. 3.5.5; update organisational titles; change Section 8 reference from CS MR-2 Management Review to CS MR-1; minor editing.