



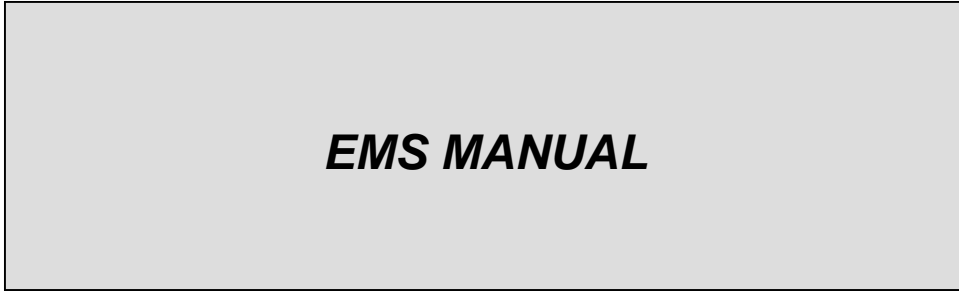










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1 PURPOSE





This manual defines the scope of the Environmental Management System (EMS) and provides a linkage of system documents to the various elements of the International Standard ISO 14001:2004.

The principal elements of the EMS described in this manual are:

- Environmental Policy.
- Environmental Aspects.
- Legal and Other Requirements.
- Objectives & Targets, and Programme(s).
- Environmental Management Programme (EMPs).
- Resources, roles, responsibility and authority.
- Training, Awareness and Competence.
- Communication.
- Control of Documents.
- Operational Control.
- Emergency preparedness and Response.
- Monitoring and Measurement.
- Non-conformity, Corrective and Preventive Action.
- Control of Records.
- Internal Audit.
- Management Review.

2 SCOPE

The EMS provides a mechanism for Environmental Management throughout all areas and departments. The EMS is designed to cover Environmental Aspects, which a facility can control and directly manage, and those it does not control or directly manage but can be expected to have an influence.

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3 ISSUE AND UPDATE

The control of this Manual should be in accordance with the procedure, “**Document Control and Record Management**”. All copies of this Manual not marked “Controlled Document” are uncontrolled and should be used for reference purposes only.

This manual will be issued by the EMS Team, EMS Representative or designee following approval by the WWTP Director.

4 ENVIRONMENTAL POLICY

The WWTP Director approves the “**Environmental Policy**”. The Environmental Policy covers all activities at the WWTP. The Environmental Policy includes a commitment to Continuous Improvement and prevention of pollution, as well as a commitment to meet or exceed relevant environmental legislation, regulations and other requirements. The Environmental Policy will be reviewed annually by WWTP Management and EMS Team, communicated to all employees and made available to the public in accordance with the Environmental Communication procedure.

4.1 Reference Material



- International Standard ISO 14001, section 4.2.

4.2 Applicable Procedures

- GP-04 “Internal & External Communication”.

5 ENVIRONMENTAL ASPECTS

The “**EMS Team**” identifies the “**Environmental Aspects**” that the WWTP controls and over which it may be expected to have an influence, and determines which of

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those aspects are considered significant. Discussions regarding significance are recorded in EMS team meeting minute. These aspects are reviewed at least semi-annually, or when there is a new or changed process or activity at the facility, by the EMS Team.

5.1 Reference Material

- International Standard ISO 14001, section 4.3.1.

5.2 Applicable Procedures

- GP-01. “Environmental Aspects”.
- Document 2. “Objectives & Targets, and Programme(s)”.
- Document 3. “Environmental Management Program”.

6 LEGAL AND OTHER REQUIREMENTS





The WWTP establish a procedure for the purpose of identifying accessing and communicating “**Legal and Other Requirements**” that are applicable to the WWTP. Additional information is also available through legal publications. Local regulations are identified, accessed and communicated by the Environmental Team. At least annually the Environmental Team will review the most current national, regional, provincial, state and local legal and other requirements applicable to the WWTP.

6.1 Reference Materials

- Legal and Other Requirements.
- International Standard ISO 14001, section 4.3.2.
- International Standard ISO 14001, section 4.5.2.

6.2 Applicable Procedures

- GP-02.”Legal and Other Requirements”, (Legal Compliance).

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7 OBJECTIVES & TARGETS, AND PROGRAMME (S)

The EMS team develops Objectives & Targets for each Significant Environmental Aspect. These Objectives & Targets define:

- The performance objectives (Investigate/Study, Control/Maintain, or Improve) for each Significant Environmental Aspect.
- The specific, quantified targets which define those performance objectives.
- The planned deadlines for the achievement of those targets.

Objectives & Targets are developed considering Significant Environmental Aspects, technological options and financial, operational and business plans, and the views of interested parties.

7.1 Reference Material





- International Standard ISO 14001, section 4.3.3.

7.2 Applicable Procedures

- GP-01. “Environmental Aspects”.
- Document 2. “Objectives &Targets, and Programme(s)”.
- Document 3. “Environmental Management Program”.

8 ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPs)

The EMS Team establishes “**Environmental Management Programs**” (EMPs) as a mean for achieving Objectives & Targets. Theses programs define the principal actions to be taken, those responsible for undertaking those actions and the scheduled times for their implementation. The EMPs are developed by the EMS Team and approved by the WWTP Director.

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8.1 Applicable Procedures

- GP-01. "Environmental Aspects".
- Document 2. "Objectives & Targets, and Programme(s)".
- Document 3. "Environmental Management Program".

9 RESOURCES, ROLES, RESPONSIBILITY AND AUTHORITY

EMS roles, responsibilities and authorities are defined at relevant functions and levels within the WWTP.

The WWTP Director jointly provides the resources essential to the implementation and control of the EMS, including: training, human resources, specialty services, financial resources, technical and informational services.





The Environmental Management Representative has primary responsibility for establishing, operating and maintaining the EMS. An "**EMS Team**" provides routine EMS support and reports directly to the EMR.

9.1 Reference Material

- International Standard ISO 14001, section 4.4.1.

10 TRAINING, AWARENESS AND COMPETENCE

The EMS Team identifies, plans, monitors and records training needs for personnel whose work may create a Significant Impact upon the environment. The WWTP should have a procedure to train employees at each relevant function and level so they are aware of the Environmental Policy, Significant Environmental Aspects, their roles and responsibilities in achieving conformance with the Environmental Policy and procedures, and with the requirements of the EMS. The EMS Team is responsible for

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maintaining employee-training records. Appropriate records are monitored and reviewed on a scheduled basis.

10.1 Reference Material

- International Standard ISO 14001, section 4.4.2.

10.2 Applicable Procedures

- GP-03. “Training, Awareness and Competence”.

11 COMMUNICATION

The WWTP should establish and to maintain a procedure for “**Internal and External Communications**” regarding Environmental Aspects and the EMS.

11.1 Reference Material

- International Standard ISO 14001, section 4.4.3.

11.2 Applicable Procedures





- GP-04. “Internal and External Communication”.

12 ENVIRONMENTAL MANAGEMENT SYSTEM DOCUMENTATION

This manual identifies all documents relevant to the EMS. A copy of EMS documents, other than visual aids and records, can be obtained from the EMS Coordinator or appointed person.

12.1 Reference Material

- International Standard ISO 14001, section 4.4.4.

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13 CONTROL OF DOCUMENTS

The WWTP should establish a procedure for controlling all documents related to the EMS. This procedure describes where documents can be located and how a when they are reviewed. The procedure ensures that current versions are available and that obsolete documents are promptly removed from use or are suitably identified. Controlled documents are obtainable from the EMS Team, EMS Coordinator or appointed person.

13.1 Reference Material

- International Standard ISO 14001, section 4.4.5.

13.2 Applicable Procedures





- GP-05. “Document Control and Record Management”.

14 OPERATIONAL CONTROL

The EMS Team is responsible for identifying operations and activities associated with Significant Environmental Aspects that require Operational Controls in procedures, work practices or Environmental Management Programs.

These documents define the mechanisms for the establishment, implementation and maintenance of the EMS and ensure that the Management System is maintained in accordance with the Environmental Policy and Objectives & Targets and is communicated to suppliers and contractors.

- **System Procedures:** Cover the management and control of both the EMS and the principal Environmental Aspects, which the system manages.
- **Work Practices:** Cover the environmental control of specific operational activities and are usually activity specific in their application.

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14.1 Reference Material

- International Standard ISO 14001, section 4.4.6.

15 EMERGENCY PREPAREDNESS AND RESPONSE

The EMS Team should establish a procedure to identify potential accidents, to respond to them and emergency situations, and to prevent and mitigate the Environmental Impacts that may be associated with them. Emergency methods are reviewed by the EMS Team on an annual basis and after the occurrence of accidents or emergency situations.

15.1 Reference Material

- International Standard ISO 14001, section 4.4.7.

15.2 Applicable Procedures

- GP-07. "Emergency Planning and Response".





16 MONITORING AND MEASUREMENT

The EMS Team should establish a procedure to "**Monitor and Measure**" the key characteristics of its operations and activities that can have a Significant Impact on the environment. This procedure should include calibration and maintenance requirements and ensures that records will be retained.

The EMS Team should establish an Environmental Regulatory Compliance Program, to analyse the requirements of the program and to periodically review regulatory compliance and report results to management on a yearly basis.

16.1 Reference Material

- International Standard ISO 14001, section 4.5.1.

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- International Standard ISO 14001, section 4.5.2.

16.2 Applicable Procedures

- GP-08. “Monitoring and Measurement”.

17 NON-CONFORMITY, CORRECTIVE ACTION AND PREVENTIVE ACTION

The EMS Team should establish a procedure to define responsibility and authority and to investigate Non-conformances, to take actions to mitigate impacts, to initiate and complete corrective and preventive action. Any changes in procedures resulting from corrective and preventive actions are implemented and recorded. The Audit Program Leader maintains these records.

17.1 Reference Material

- International Standard ISO 14001, section 4.5.3.

17.2 Applicable Procedures





- GP-9. “Non-Conformity, Corrective Action and Preventive Action”.

18 CONTROL OF RECORDS

The EMS Team should establish a procedure for the identification, maintenance and disposal of environmental records. These records include training records and the results of audits and reviews. They are readily retrievable and protected against damage, deterioration and loss. The Areas and Departments maintain their own environmental records. Record and document retention is also specified in the procedure.

18.1 Reference Material

- International Standard ISO 14001, section 4.5.4.

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18.2 Applicable Procedures

- GP-05. “Document Control and Record Management”.

19 INTERNAL AUDIT

Periodic EMS Audits must be conducted to ensure that the EMS has been properly implemented and maintained. The results of these audits are provided to management. Audits are performed according to a schedule, which is based on the environmental importance of an activity, the results of previous audits and the audit schedule. All auditors are trained and audit records are kept with the Audit Leader.

19.1 Reference Material

- International Standard ISO 14001, section 4.5.5.

19.2 Applicable Procedures

- GP 10. “EMS Internal Audit”.

20 MANAGEMENT REVIEW

The WWTP Director and EMS Team review all elements of the EMS annually to ensure its continuing suitability, adequacy and effectiveness. Meeting minutes record these reviews and are kept by the EMR or designee.

20.1 Reference Material

- International Standard ISO 14001, section 4.6.

20.2 Applicable Procedures

- Document 4. “Management Review”.

