TCTGCL

EMS – Manual		
Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
Document Level	Level 1	
Document Type	Manual	
Standards		
ISO 14001:2015 ☑		
Prepared by	**MR Environmental Management System**	
Approved by	EGC	
Revision Number	**Revision date**	**Effective date**
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Initial Effective Date	29.10.2024	
Applicable Sites		

Abuja Office:
The Chesopiri Glasshouse
Plot 122, TOS Douglas Crescent,
Cadastral Zone B11, Games Village,
Kaura District, FCT Abuja, Nigeria

Port Harcourt Office:
The Chesopiri, Glasshouse
Plot 56, GRA Phase 8,
Opp. Arik Air Terminal, Beside Obi Wali Centre
Air Force Base, Port Harcourt, Rivers State, Nigeria

Group web site: www.chesstgroup.com.ng	
Management Representative	Thompson Douglas

Contents

A. Revision History & Amendment Status

Sl. No	**01**
Date	07.09.2024
Reason for Change	NA
Change Details	NA
Raised By	MR
Approved By	EGC

B. Profile

Vision: To be the premier provider of engineering, construction, and related services in Nigeria, contributing to the nation's sustainable development while ensuring the utmost satisfaction of our clients.

Mission statement: To provide innovative, safe, and high-quality infrastructure solutions across Nigeria and beyond, particularly in the oil and gas sector, while adhering to the highest standards of integrity and customer satisfaction.

Core values: To uphold integrity, ensuring safety, delivering exceptional quality, prioritizing customer satisfaction, and promoting local content to exceed client expectations and contribute to Nigeria's economic growth.

Goals Expand in services and develop a strong base of customers. Increase the assets and investments of the company to support the development of services and become a key player in the industry

C. Approval, Amendment & Distribution of the EMS Management System Manual

Approval

This document based on ISO 14001:2015 - Environmental management systems Manual" of 'TCTGCL as the apex document of the Management System; implemented at Tom Chess T Group of Companies Limited

On the following date 29.09.2024, the first issue "A" with Revision 0 is released for use by all the authorised persons of the Organisation.

The Management System Manual is a controlled document and shall not be copied in full or part thereof, without due authorisation.

Any revisions and amendments shall be documented in the Amendment history of this document.

Amendment

All amendments to this Environmental Management System Manual shall be reviewed by the MR and shall be approved by the EGC. The revision, updating and distribution will be the responsibility of the EMS MR. MR will also be responsible for retrieving the obsolete copies of the Environmental Management System Manual.

Changes to the Environmental Manual will be provided in brief in the 'Revision History Sheet' along with this Environmental Management System Manual.

Distribution of the Environmental Management System Manual

Distribution of Environmental Management System Manual shall be controlled and authorized by the MR. Controlled copies of the Environmental Management System Manual will be issued in accordance with an established distribution list. MR will ensure that the controlled copies are updated promptly. MR will distribute all amendments to the Environmental Management System Manual to all holders of the controlled copies and ensure that the obsolete pages or documents are removed.

Uncontrolled copies of the Environmental Management System Manual may be issued to the customers/clients on demand for reference purposes. The uncontrolled copies shall not be updated and shall not carry any identification called "Controlled Copy"

D. Policy

EMS – EMS Policy

(Environment Management system policy)

Integrated operation in TCTGCL, performing the activities related to Petrol Filling Station and Gas plant Construction, CNG Vehicle conversion and refuelling plant construction, Architectural Animation Rendering service, Real Estate Agency Service, Compliance Certificates Registration and Renewal Service and outdoor billboard advertisement service is committed to protecting the of our employees, customers, contractors, visitors, and the communities we reside and operate in and aim for Environmental, efficiency in our operations. We comply with all applicable regulatory requirements while striving to achieve this policy

To achieve this, we are committed to:

1. Adhere to the corporate policies.
2. Protection of the environment, including prevention of pollution and preservation of resources
3. Reduce its consumption – water, Natural resources and therefore emissions by reviewing objectives and targets.
4. Ensure the availability of information and necessary resources to achieve objectives and targets.
5. Fulfil legal requirements and other requirements related to Environment, use and consumption.
6. Eliminate Aspects and reduce impacts.
7. Continual improvement of the management system for enhancing the environmental & performance
8. Supports the procurement of efficient services that impact performance.

Date: 27.08.24

Location: TCTGCL

EGC/-

THOMPSON DOUGLAS

1) Scope

The purpose of an Environmental management system is to provide a framework for managing Environmental risks and opportunities associated with EMS. The aim and intended outcomes of the Environmental management system are to prevent work related injury and ill environment to workers and to provide safe and environment workplaces, to protect the environment, prevent pollution, preserve resources and improve performance, including efficiency, use and consumption, consequently, it is critically important for TCTGCL to eliminate hazards and minimize Environmental risks by taking effective preventive and protective measures. Environmental management system is effective and efficient when taking early action to address opportunities for improvement of Environmental Management System performance. Implementation of Environmental Management System conforming to this document enables TCTGCL to manage its Environmental Management System risks and improve its Environmental Management System performance. Environmental management system will assist TCTGCL to fulfil its legal requirements and other requirements. The implementation of an Environmental management system is a strategic and operational decision for TCTGCL. The success of the Environmental management system depends on leadership, commitment and participation from all levels and functions of the organization.

The scope of this Environmental Management System Manual and the Environmental Management System implemented at TCTGCL covers all the activities of the Organization.

The system and this Environmental Management System Manual cover all technical and administrative areas of the Organization.

EMS Scope

The scope of this Management System Manual in relation to EMS covers TCTGCL's compliance with applicable environmental laws, regulations, and standards, including ISO 14001, and ensures the identification, evaluation, and mitigation of environmental risks.

Registered Office - :
Plot 122 T.O.S Douglas Crescent,
Kaura District,
Abuja

TCTGCL ensures to determine and provide the persons and resources necessary for the effective implementation of its Environmental Management system and for the operation and control of its processes.

Non-Applicability

None

Processes identified and Mapped for Governing the Management System	
Process	**Areas / Sub Processes covered**

For the EMS implementation following processes are mapped

1. Core Activities	2. Support Activities
PETROL FILLING STATION AND GAS PLANT CONSTRUCTION ENGINEERING	COMPLIANCE CERTIFICATES REGISTRATION AND RENEWAL SERVICE
CNG VEHICLE CONVERSION AND REFUELLING PLANT CONSTRUCTION	ARCHITECTURAL ANIMATION RENDERING SERVICE

- REAL ESTATE AGENCY SERVICE - OUTDOOR BILLBOARD ADVERTISEMENT SERVICE	
TCTGCL - Outsourced activities – Infrastructure AMC (Annual Maintenance Contracts) Security pest control	

2) Normative References

1) ISO 14001:2015 - Environmental management systems
2) Applicable legal requirements:
   1) Child Labor Regulations
   2) Contractors
   3) Fire Department
   4) FSSAI
   5) Maternity benefit ACT
   6) Payment of gratuity act
   7) Payment of wages act
   8) POSH

3) Terms and Definitions

3.1. Terms Related to ISO 14001:2015 - Environmental management systems.

1) Audit: Systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.
2) Competence: ability to apply knowledge and skills to achieve intended results
3) Compliance obligations (preferred term): legal requirements and other requirements (admitted term): legal requirements that an organization has to

comply with and other requirements that an organization has to or chooses to comply with.

4) Conformity: fulfilment of a requirement.
5) Continual improvement: recurring activity to enhance performance.
6) corrective action: action to eliminate the cause of a nonconformity and to prevent recurrence.
7) Documented information: Information required to be controlled and maintained by an organization and the medium on which it is contained.
8) Effectiveness: extent to which planned activities are realized and planned results achieved.
9) Environment: Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships.
10) Environmental aspect: Element of an organization's activities or products or services that interacts or can interact with the environment.
11) Environmental condition: State or characteristic of the environment as determined at a certain point in time.
12) Environmental impact: change to the environment whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects.
13) Environmental management system: part of the management system used to manage environmental aspects fulfil compliance obligations and address risks and opportunities.
14) Environmental objective: Objective set by the organization consistent with its environmental policy.
15) Environmental performance: Performance related to the management of environmental aspects.
16) Environmental policy: Intentions and direction of an organization related to environmental performance as formally expressed by its top management.

17) Indicator: measurable representation of the condition or status of operations, management or conditions.
18) Interested party: Person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity.
19) Life cycle: Consecutive and interlinked stages of a product (or service) system, from raw material acquisition or generation from natural resources to final disposal.
20) Management system: set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives.
21) Measurement: Process to determine a value.
22) Monitoring: determining the status of a system, a process or an activity.
23) Nonconformity: non-fulfilment of a requirement.
24) Objective: result to be achieved.
25) Organization: Person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives.
26) Outsource: make an arrangement where an external organization performs part of an organization's function or process.
27) Performance: measurable result
28) Prevention of pollution: use of processes, practices, techniques, materials, products, services or to avoid, reduce or control (separately or in combination) the creation, emission or discharge of any type of pollutant or
29) Process: set of interrelated or interacting activities which transforms inputs into outputs.
30) Requirement: need or expectation that is stated, generally implied or obligatory.
31) Risk: effect of uncertainty.
32) Risks and opportunities: Potential adverse effects (threats) and potential beneficial effects (opportunities).

33) Top management: person or group of people who directs and controls an organization at the highest level.

3.2. Abbreviations

1) CAR: Corrective Action Report
2) D: Document
3) Dept HOD / Process Owner: The head of each process or department established in the organisation for carrying out the business activities.
4) EMS: Environmental, Management System
5) F: Form
6) IA: Internal Audit
7) TCTGCL / Organization: TCTGCL
8) EMS Core team: EMS representative from each process that are identified for the effective establishment, implementation, maintenance and sustenance of the EMS in the organisation.
9) EMS MR: Environmental Management System – Management Representative
10) ISO: International Organization for Standardization
11) KPI: Key Performance Indicator
12) MRM: Management Review Meeting
13) OCP: Operational control Procedure
14) Process users: End User of all system and services deployed in the organisation to carry out the business activities.
15) PUR: Purchase
16) SOP: Standard Operating Procedure
17) STD: Standard

4) Context of the organization

4.1. Understanding the organization and its context

The organization has determined the various external and internal issues that are relevant to its purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its Environmental management system and improve its Environmental performance.

The Intended result of the Environmental management system of the organisation is

1) Continual improvement of the processes and services rendered by the organisation.
2) Enhancement of Environmental performance,
3) Fulfilment of compliance obligations, meeting applicable legal requirements and other requirements.
4) Achievement of Environmental objectives.
5) Taking effective preventive and protective measures
6) A framework for managing EMS risks and opportunities
7) TCTGCL determines whether climate change is a relevant issue
8) Relevant interested parties can have requirements related to climate change

Internal and External issues which can be relevant to the context of the organization include:

a) Environmental conditions related to climate, air , water , land use, existing contamination, natural resource availability and biodiversity, that can either affect the organization's purpose, or be affected by its Environmental, aspects;

b) The external cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive circumstances, whether international, national, regional or local;

c) The internal characteristics or conditions of the organization, such as its activities, services, strategic direction, culture and capabilities (i.e. people, knowledge, processes, systems).

d) The various external issues identified that can impact the Environmental management system of the organisation, but not limited to the following context: legal, technological, competitive, market, cultural, social and economic environments, whether international, national, regional or local.

Certain external issues related to achieve the intended result are:

i. Cultural attitude of personnel towards the response to certain services rendered by the organisation.
ii. Increasing trend of the legal applicability on the project norms, waste disposals and time frames.
iii. Climatic factors related issues like rain, etc. that can delay the project timelines.
iv. Unknown terrain and resource unavailability for personnel in site, during work execution.
v. Non – availability of Labour & other labour issues
vi. Sourcing of materials from large distant external providers, due to the scar of the natural resource availability / material availability due to qualitative factors and customer requirements, can lead to Environmental, impact being higher on a larger supply chain perspective.
vii. Core business objectives and strategy;
viii. Asset management plans;
ix. Financial resource (labour, financial, etc.) Affecting the organization;

Type	Issue	Bias
Competition	TCTGCL has significant competition in this market at this time.	Negative
Society & Culture	Services may present particular controversies that would result in negative reactions from society or the public, and accountability.	Neutral
Labour	Ban of permit of any nationality	Negative
Statutory/Regulatory	residence and medical fitness.	Positive
Economic	Effect of Crimes, effect on reputation clients, loss of assets, effect of business environment.	Negative
Political	Ban of permit of any nationality	Negative
Pandemic	Outbreak of pandemic diseases	Negative

x. Contingency plans for interruptions in supply;

xi. Maturity of existing technology;

xii. Operational risks and liability considerations.

The various internal issues identified, that can impact the Environmental management system of the organisation but not limited to the following context: financial, space, timeframe, capability, CAPA, values, culture, and knowledge, competency of people and performance of the organization.

Certain Internal issues related to achieve the intended result are:

i. Cross Culture personnel, need to have good communication skills and broad minded perspective to approach tasks, with patience to address certain issues faced during activities executed by them.

ii. Thorough knowledge of the task being carried out, without misconceptions in its understanding.

iii. Non – availability of Labour & other labour issues

iv. Issues related to interested parties such as existing national or sector objectives, requirements or standards;
v. Technology adopted / implemented in the organisation
vi. Effects of weather;
vii. Effects of climate change;

Type	Issue	Bias
Technological	TCTGCL has currently has adequate technological resources to consistently provide its services	Positive
An employee base	Availability of skilled workforce in the area remains high	Positive
Past History	Very less pass history on concerning instances	Positive
Leadership	Committed Leadership	Positive
Resources	Space Shortage during peak	Negative
Working time arrangements	Multiple Shifts	Negative
Processes	Use of Chemicals in process	Negative
Processes	Manual Handling of Effluent outputs	Negative

Above listed, are a few indications of the issues that are always related to affect its ability to achieve the intended result of the organization's Environmental management system, however the organisation monitor's and review's information about these external and internal issues in detail, in all Management review meeting conducted by the organisation.

Reference: Procedure for Context Management, Management Review Meeting Records

4.2. Understanding the needs and expectations of interested parties

Due to their effect or potential effect on the organization's ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, the organization has determined:

i. the interested parties that are relevant to the Environmental management system.
ii. the requirements of these interested parties that are relevant to the Environmental management system,
iii. which of the identified needs and expectations the organization addresses through its EMS.

b) The organization monitors and reviews information about these interested parties and their relevant requirements, in all Management review meetings conducted by the organisation.

The organization:

i. ensures that it has access to the applicable legal requirements and other requirements related to its
ii. ensures that these requirements are taken into account;
iii. reviews at defined intervals its legal requirements and other requirements.

The Organisation, considers various interested parties, such as

1. Parent organizations.
2. Suppliers, contractors, and subcontractors.
3. Customers
4. Suppliers/vendors
5. Regulatory bodies – Factory inspectorate / Fire department / Township authority
6. Stakeholders
7. Competitors
8. Public
9. Neighbours
10. customers, medical and other community services, media, academia, business associations and non-governmental organizations [NGOs).

Sl. No	Interested Party	Requirements of these interested parties (needs and expectations related to Environmental management system) **Bold and highlighted are compliance obligations**	Evidences
01	Shareholders	Constant improvement in the performance of the organisation. Widen the width of services rendered by the organisation. Less impact to environment, and promote concept of reuse to minimise resource	Management Review Meeting Records.

		consumptions. Continuity of electricity supply **No Legal and other requirements compliance**	
02	Customers and End Users	Details of requirements as indicated in the Tender / Contract / Work orders of the Customer. **Environmental management as per the requirements specified in Customer requirements documents.**	Contract / Work Order / Document / Objectives
03	Employee's	Good work environment, practice. and attitude at workplace Continual upgrade of knowledge Breaking monotony in work No ambiguity in executing work Open door policies related to work management Waste management practices	Operational controls and systems achieve the requirements
04	Local Community / NGO's / Environmental Activists / Public / Families of workers	**Prevention of Pollution** Minimise impact to the flora & fauna in and around project sites. Preventive and Protective measures to prevent Emergency management	Management Review Meeting Records
05	External Providers	Volume of business On time payment Continued business	Supplier management and

			communications

Reference: Procedure for Context Management, Management Review Meeting Records

4.3. Determining the scope of the Environmental management system

The organization has determined the boundaries and applicability of the Environmental management system to establish its scope.

When determining this scope, the organization has considered the following:

a) the external and internal issues subjected to the organisation.
b) the requirements of relevant interested parties subjected to the organisation.
c) the compliance obligations referred to interested party requirements.
d) its organizational units, functions and physical boundaries.
e) its activities, products and services, of the organization.;
f) its authority and ability to exercise control and influence

The organization applies all the requirements of ISO 14001:2015 International Standard as they are applicable within the determined scope of its Environmental, management system.

The scope of the organization's Environmental management system is available and be maintained as documented information that is prefaced in the manual of the organisation. The scope states the types of products and services covered and provide justification for any requirement of ISO 14001:2015 International Standard that the organization determines is not applicable to the scope of its Environmental management system - however presently no exclusion to ISO 14001:2015 International Standard requirements.

Conformity to ISO 14001:2015 International Standard is being claimed as the requirements determined as not being applicable do not affect the organization's ability or responsibility to ensure the conformity of its products and services and the enhancement of customer satisfaction.

The scope identified by the organisation is documented in “Clause 1 – Scope –of this document”.

The organization shall ensure that it has the authority to control its efficiency, use and consumption within the scope and boundaries. The organization shall not exclude an type within the scope and boundaries.

The EMS scope and boundaries shall be maintained as documented information.

Outsourced activities impacting EMS includes: security, housekeeping, canteen, pest control

Reference: Documented statement of the scope of the Environmental management system, Clause 1.0 of this document

4.4. Environmental management system

The organization has established, implemented, maintains and continually improves an Environmental management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard to achieve the intended outcomes, including enhancing its Environmental management performance

The organization shall establish, implement, maintain and continually improve an EMS, including the processes needed and their interactions, and continually improve Environmental performance, in accordance with the requirements of this document.

Reference: Master List of EMS Documented Information

5) Leadership

5.1. Leadership and commitment

Top management demonstrates the leadership and commitment with respect to the Environmental management system by:

1. taking accountability for the effectiveness of the Environmental management system.
2. ensuring that the Environmental policy and quality and Environmental, objectives are established for the Environmental management system and are compatible with the context and strategic direction of the organization.
3. ensuring the integration of the Environmental management system requirements into the organization's business processes.
4. promoting the use of the process approach and risk-based thinking.
5. ensuring that the resources needed for the Environmental management system are available.
6. communicating the importance of effective Environmental management and of conforming to the Environmental management system requirements;
7. ensuring that the Environmental management system achieves its intended results / outcomes;
8. engaging, directing and supporting persons to contribute to the effectiveness of the Environmental management system;
9. promoting continual improvement of the Environmental management system and its performance.
10. supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.
11. ensuring the formation of management team.
12. supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility
13. ensuring that processes are established and implemented to identify and address changes affecting

14. The Managing Director of the organisation, show complete commitment in achieving all the above descriptions.

5.2. Policy

5.2.1. Establishing the Environmental policy

Top management has established, implemented and maintains a EMS and environment policy that:

1. is appropriate to the purpose and context of the organization and supports its strategic direction including nature, scale, Environmental, impacts of its activities, products and services.
2. provides a framework for setting Environmental objectives;
3. includes a commitment to satisfy applicable requirements;
4. includes a commitment to continual improvement of the Environmental management system and enhance Environmental management performance.
5. includes a commitment to the protection of the environment, including prevention of pollution and other specific commitment(s) relevant to the context of the organization;
6. includes a commitment to fulfil its compliance obligations
7. includes a commitment to fulfil legal requirements and other requirements;
8. includes a commitment to ensure the availability of information and necessary resources to achieve objectives and targets;
9. includes a commitment to satisfy applicable legal requirements and other requirements related to efficiency, use and consumption;
10. supports the procurement of efficient products and services that impact performance;

5.2.2. Communicating the EMS policy

The environment management system policy is

a) Available and maintained as documented information;

b) Communicated, understood and applied within the organization;

c) Available to relevant interested parties, as appropriate.

Reference: Prefaced Environmental policy in Clause D of this manual, Policy prefaced in Clause D of this Document.

5.3. Organization roles, responsibilities, and authorities

Environmental management system roles, responsibilities and authorities are defined at relevant functions and levels within the organization.

Responsibilities related to communication are addressed in Clause 7.4 of this document

The TCTGCL Management Team jointly provides the resources essential to the implementation and control of the Environmental management system, including: training, human resources, financial resources, technical and informational services.

The Team provides routine Environmental support and reports directly to the head and also ensures that persons in the workplace take responsibility for aspects of Environmental over which they have control, including adherence to the organizations applicable Environmental requirements.

Top management represented by EGC, ensure that the responsibilities and authorities for relevant roles within the EMS management system are assigned and communicated at all levels within the organization and maintained as documented information. Workers at each level of the organization assume responsibility for those aspects of the EMS management system over which they have control.

Top management assign the responsibility and authority to EMS Management Representative Mr. Thompson Douglas for:

a) ensuring that the EMS management system conforms to the requirements of this document;
b) reporting on the performance of the EMS management system to top management.
    - making arrangements for ensuring the safe use, handling, storage and transport of material and substances;

EMS Team

The Responsibilities and Authorities of Relevant Roles in the Organisation, within the Framework of its Environmental management system are as follows:

- Reviewing the minutes of EMS Management Review Meeting, analyse and recommend suitable solutions with regard to security incidents, various Environmental assessments, awareness education and monitoring activities across the organisation.
- Report to the EMS MR about the Environmental activities and improvements.
- Initiate the EMS Breach incident investigation.
- Updating EMS Plans with Aspect Impact Assessment information and participating in the development of Aspect Impact mitigations;
- Verify the Corrective Action and closure of the same.

A. Top Management

The responsibilities include:

o Review Environmental policy and overall responsibilities.

o Review deviation request from established policies.

o Review implementation plans, Environmental systems deployed in business continuity plans and disaster recovery plans.

The authorities include:

- Approve Environmental policy, EMS Operational control procedures and overall responsibilities of all roles in the organisation.
- Approve major initiatives to enhance EMS performance.
- Approve deviation request from established policies.
- Approve Environmental reports, implementation plans, business continuity plans.

B. MR Thompson Douglas

The responsibilities include:

- Establishing and maintaining effective documented Environmental management system as per standard requirement
- Coordinating and assisting the concerned offices in the implementation of EMS
- Ensuring all staff understands their roles and responsibilities by providing adequate awareness training.
- EMS incidents and response management
- Ensuring corrective and preventive actions against identified or potential non-conformities
- Ensuring all the EMS incidents are identified in time and managed properly
- Strategic development of Environmental infrastructure to meet the business needs of Organisation.
- Provision of EMS advice and assistance as required, including project / customer specific consultation
- Implementation of Environmental policies and standards

The authorities include:

- Planning and conducting regular internal audits and compliance audits
- Reporting to the Top Management about the performance of EMS.
- Conduct the Management Review at scheduled intervals.
- Initiating review of the EMS once in a year or as and when required.
- Coordination between the management and the certifying authority.
- Devising, testing and reviewing Environmental requirements in mock drill, & Crisis Management Plans

C. EMS Core team:

The responsibilities include:

- Ensure all EMS assets are secured and functioning reliably.
- Provide necessary assistance in Environmental incident investigations.

- Establishing and maintaining effective documented Environmental management system
- Becoming familiar with EMS Policies, Procedure, Guidelines, Processes and Methodology and support for the implementation;
- Participating in the development of EMS cost estimates and submission of funding requests for mitigations, as required;
- Supporting the effective implementation of selected controls.
- Coordinating in reviews, internal audit and assist to improve EMS.
- Supporting the continual improvement of an Environmental management system.

The authorities include:

Reviewing the minutes of EMS Management Review Meeting, analyse and recommend suitable solutions with regard to various Environmental assessments, awareness education and monitoring activities across the organisation.

- Report to the EMS MR about the Environmental activities and improvements.
- Initiate the EMS Breach incident investigation.
- Verify the Corrective Action and closure of the same.
- Review and approve the relevant EMS Documents
- Perform / participate in mock drills;

D. HR in charge

The responsibilities include:

- Leading HR projects like compensation plans revisions
- Develops and implements EMS departmental budget.
- Facilitates EMS professional development, training, and certification activities for HR staff.
- Performs other duties as required.
- Fire fighting infrastructure management
- Waste management

Authorities include, but not limited to:

- Approve HR company policies and procedures
- Review and update our employment contracts and agreements
- Purchase Head
- Develop procedures to ensure EMS across supply chain

Authorities include:

- Issue purchase order
- Approve payments
- Execute NDA / agreements with external provider
- Select or Disengage external provider based on evaluation
- Communicate the EMS proceedings with external provider / authorities
- Functional Managers / Department HOD

The responsibilities include:

- Participate in Aspect Impact assessments carried out by the organisation
- Adhere and communicate all EMS Operational control procedure to members within the team.
- Actively support the implementation of EMS in their respective work area.
- Establishing and maintaining effective documented Environmental management system as per standard in their department.
- Suggesting and participating in the process of Corrective and preventive actions.
- Coordinating in reviews, internal audit and assist to improve EMS.
- Ensuring his/her department in compliance with Organisations Environmental policy.
- Actively for participating in the mock drill activities.

The authorities include:

- Reporting any security incident to the EMS MR
- Review of the Aspect Impact assessment studies of the area.

G. Process Owners and Users

The responsibilities include:

- Understanding and adhering to the Environmental policy and procedures

The authorities include:

Reporting the EMS incident to the management through proper reporting systems.

Employees

Employees must take reasonable care of the Environmental system and must co-operate with employers in their efforts to comply with Environmental requirements.

Position	EMS Responsibilities	EMS Authority	Accountability Mechanisms
Top Management	• Ensure EMS requirements are implemented and monitored for division to enable legislative compliance; • Ensure	• The authority to make decisions and act on any matter of EMS management within their area of responsibility as described in the	• EMS performance indicators; • Faculty/Division strategic plans; • EMS verification audits; • Performance reviews.

	communication / Participation and consultative mechanisms are established; • Ensure appropriate EMS training is provided; • Monitor EMS performance of faculty/division and direct reports; • Dedicate appropriate resources to enable EMS functions in the faculty/division; • Other as outlined in Job descriptions	Delegations of Authority Policy and applicable EMS Guidelines. • Approval of EMS Policy and Objectives	

Process Head / Department Head	• Ensure EMS Aspect Impact management activities are implemented within area of responsibility including any site specific measures required to eliminate or reduce Impact in their area are identified, developed and implemented; • Ensure the implementation of corrective actions as a result of incident reports or incident analysis; • Monitor EMS performance of	• The authority to make decisions and act on any matter of EMS management within their area of responsibility as described in the Delegations of Authority Policy and applicable EMS Guidelines. • To Stop Unsafe Work	• EMS performance indicators; • Unit EMS plans; • EMS verification audits; • Performance reviews; • performance management procedures.

	unit and direct reports; • Fulfil responsibilities of the injury management program for injured employees; • Other as outlined in Job descriptions		
Executive Staff and Manager	• Ensuring that work areas under their control are without Aspect Impact to of occupants; • Staff are provided with the necessary instruction, information , • Assist	• The authority to make decisions and act on any matter of EMS management within their area of responsibility as described in the Delegations of Authority	• Performance planner reviews; • EMS inspections; • EMS verification audits. • performance management procedures.

	individual employees to improve EMS performance; • Other as outlined in Job descriptions	Policy and applicable EMS Guidelines.	
All Staff	• **Have a responsibility to co-operate with management and staff with nominated or elected EMS functions;** • **Have a responsibility to comply with relevant EMS management system policies, procedures and programs, as**	• **The authority to make decisions and act on any matter of EMS management within their area of responsibility as described in the Delegations of Authority Policy and applicable EMS Guidelines.**	• Performance planner reviews; • Performance management procedures.

	appropriate; • **Must not bypass or misuse systems or equipment provided for EMS purposes;**		

Reference: Organisation Chart, Responsibility, and authority document.

6) Planning

6.1. Actions to address risks and opportunities

6.0 EMS Planning

6.1 Actions to address risks and opportunities

General

6.1.1 General

The organization has established, implemented and maintain the process(es) needed to meet the requirements of the international standard.

When planning for the environmental management system, the organization considers:

a) The external and internal issues applicable to the organisation;

b) The requirements of the interested parties;

c) The scope of its environmental management system;

and determine the risks and opportunities, related to its environmental aspects, compliance obligations and other internal and external issues and interested party requirements that need to be addressed to:

- give assurance that the environmental management system can achieve its intended outcomes;
- prevent or reduce undesired effects, including the potential for external environmental conditions to affect the organization;
- Achieve continual improvement.
- Within the scope of the environmental management system, the organization has determined potential emergency situations, including those that can have an environmental impact.

The organization maintains documented information of its:

- risks and opportunities that need to be addressed;
- Processes needed as per ISO 14001:2015, to the extent necessary to have confidence they are carried out as planned.

Reference: Records of management review meetings

6.1.2 Environmental aspects

Within the defined scope of the environmental management system, the organization has determined the environmental aspects of its activities, products and services that it can control and those that it can influence, and their associated environmental impacts, considering a life cycle perspective.

When determining environmental aspects, the organization takes into account:

a) change, including planned or new developments, and new or modified activities, products and services;

b) abnormal conditions and reasonably foreseeable emergency situations.

The organization determines those aspects that have or can have a significant environmental impact by using established criteria.

The organization communicates its significant environmental aspects among the various levels and functions of the organization, as appropriate.

The organization maintains documented information of its:

— Environmental aspects and associated environmental impacts;

— Criteria used to determine its significant environmental aspects;

— significant environmental aspects.

Reference: Procedure for Aspect Impact assessment and identification of control.

6.1.2 The organization plans:

a) Actions to address these risks and opportunities;

b) how to:

1) Integrate and implement the actions into its EMS and performance processes;

2) evaluate the effectiveness of these actions.

Reference: Records of Context Aspect Impact register, Records of management review meetings

6.1.2 Environmental aspect and impact assessment

Within the defined scope of the environmental management system, TCTGCL determines the environmental aspects of its activities, products and services that it can control and those that it can influence, and their associated environmental impacts, considering a life cycle perspective.

When determining environmental aspects, TCTGCL has taken into account:

a) Change, including planned or new developments, and new or modified activities, products and services;

b) abnormal conditions and reasonably foreseeable emergency situations.

TCTGCL has determined those aspects that have or can have a significant environmental impact, i.e. significant environmental aspects, by using established criteria.

TCTGCL has decided not voluntarily communicate its significant environmental aspects to interested parties, but selective communication among the various levels and functions of TCTGCL, as appropriate.

TCTGCL maintains documented information of its:

— Environmental aspects and associated environmental impacts;

— Criteria used to determine its significant environmental aspects;

— significant environmental aspects.

Reference: Environmental Aspects Procedure, Aspect Impact register for aspect and impact analysis

6.1.1. Planning action

The organization plans:

a) to take actions to address its:

1. Significant environmental aspects;

2. address compliance obligations - legal requirements and other requirements

3. prepare for and respond to emergency situations

b) how to:

1. Integrate and implement the actions into its environmental management system processes or other business processes;

2. evaluate the effectiveness of these actions.

When planning these actions, the organization considers its technological options and its financial, operational and business requirements.

When planning its actions, the organization shall consider best practices, technological options and financial, operational and business requirements

Reference: Environmental Operational control procedures

6.2. Environmental objectives and planning to achieve them

The Organisation has established Environmental objectives at relevant functions and levels.

The Environmental objectives are:

a) consistent with the Environmental policy;
b) measurable (if practicable);
c) taking into account applicable Environmental requirements, and results from Aspect Impact assessment and Aspect Impact treatment;
d) be communicated; and
e) be updated as appropriate.

The organization retains documented information on the objectives

When planning how to achieve its Environmental objectives, The Organisation determines:

a) what will be done;
b) what resources will be required;
c) who will be responsible;
d) when it will be completed; and
e) how the results will be evaluated.

The organization considers how the actions to achieve its objectives and Environmental targets can be Environmental into the organization's business processes. The organization retain documented information on action plans

Reference: EMS Objectives, Objective Tracking Sheet.

7) Support

7.1. Resources

The Organisation has determined and provided the resources needed for the establishment, implementation, maintenance and continual improvement of the Environmental management system.

7.2. Competence

The Organisation has:

The organization has:

a) Determined the necessary competence of person(s) doing work under its control and workers that affects the performance and effectiveness of the Environmental management system;

b) Ensured that these persons are competent on the basis of appropriate education, training, or experience;

c) Where applicable, takes actions to acquire the necessary competence, and evaluates the effectiveness of the actions taken;

d) retains appropriate documented information as evidence of competence.

e) determines the necessary competence of person(s) doing work under its control that affects its Environmental performance and its ability to fulfil its compliance obligations.

The required competence in the organisation is mapped in the Skill Assessments carried out in the organisation and such information is available in the Job Descriptions of the Roles in Organisation.

Reference: Procedure for Competence Management

7.3. Awareness

The organization ensures that persons doing work under the organization's control are aware of:

a) The Environmental policy;

b) Relevant Environmental objectives;

c) Their contribution to the effectiveness of the Environmental management system, including the benefits of improved performance and enhanced Environmental performance;

d) the implications of not conforming with the Environmental management system requirements, including not fulfilling the organization's compliance obligations.

e) the significant Environmental, aspects and related actual or potential Environmental, impacts associated with their work;

Reference: Training Calendar, Training Need requisitions, Training and Feedback Record, Training effectiveness record.

7.4. Communication

The Organisation has determined the need for internal and external communications relevant to the Environmental, , management system including:

a) on what to communicate;

b) when to communicate;

c) with whom to communicate;

d) who shall communicate; and

e) the processes by which communication shall be effected.

EMS Internal Communications

Sl. No	What	When	Whom	Who	Process of Communication	Record(s)	Comments
1.	EMS Policy	Continual Basis	All Employees	EMS MR	Displays, Uploading share points and Website	NIL	
2.	EMS Control Policies	Bi Annually	All Employees	EMS Core team	Trainings, Uploading in share point	Training records	
3.	EMS Objectives	During Every MRM	EMS Core team	Top Management	Meetings	MRM records	
4.	EMS Continual Improvements	As and when improvement happens	All Employees	EMS MR	Emails, Training	Emails, Training records	
5.	EMS Non-conformances	As and when Situation happens	EMS Core team	EMS MR	Emails	Corrective Action form	
6.	EMS MRM's	Bi Annually	EMS Core team	Top Management	Meetings	MRM records	
7.	EMS	As and	EMS	EMS MR	Emails	Incident	

	Incidents	when Situation happens	Core team			Report Register	
8.	EMS Changes	As and when changes happens	All Employees	EMS MR	Emails, Training	Emails, Training records	
EMS External Communications							
SN	What	When	Whom	Who	Process of Communication	Record(s)	Comments
1.	EMS Control Policies	As and when vendors	Vendors /Contractors / Interested parties / Clients	EMS Core team	Emails	Emails	
2.	EMS Incidents	As and when Situation happens	Statutory Officials / Clients	Top Management	Emails / Circulars	Emails / Circulars	
3.	Infrastructure Issue		Service Provider	EMS Core team	Emails / Telephone	Emails	
4.	Fire Emergency		Fire Department	EMS Core team	Emails / Telephone	Emails	
5.	Power Failure		Building Facility	EMS Core	Emails / Telephone	Emails	

			Manager	team			

Reference: Procedure for Communication, Participation and Consultation

7.5. Documented information

7.5.1. General

The organization’s Environmental management system includes:

a) documented information required by this International Standard; and

b) documented information determined by The Organisation as being necessary for the effectiveness of the Environmental, , management system.

The documented information identified and maintained in the organisation includes, but not limited to the following documented information:

- scope of the EMS
- Environmental policy
- Environmental objectives
- of competence of person(s) doing work under the control of the organization that affects the performance and effectiveness of the EMS
- documented information of EMS risks and opportunities
- documented evidence of competence.
- documented information as evidence of its communications,
- documented information of operational planning and control
- documented information of Emergency preparedness and response.
- documented information as evidence of the Environmental, performance monitoring, measurement, analysis and evaluation results.
- documented information as evidence of the compliance evaluation result(s).
- documented information as evidence of the implementation of the audit
- programme and the audit results.
- documented information as evidence of the results of management reviews.
- documented information of Nonconformity and corrective action
- documented information of Environmental, aspects
- documented information of compliance obligations
- Emergency preparedness and response process (clause 8.2)

- Evidence of competence (clause 7.2)
- Evidence of communications (clause 7.4.1)
- Plans for responding to potential emergency situations (clause 8.2)
- Results on monitoring, measurements, analysis and performance evaluation (clause 9.1.1)
- Maintenance, calibration or verification of monitoring equipment (clause 9.1.1)
- Compliance evaluation results (clause 9.1.2)
- Internal audit program (clause 9.2.2)
- Internal audit report (clause 9.2.2)
- Results of management review (clause 9.3)
- Nature of incidents or nonconformities and any subsequent action taken (clause 10.2)
- Results of any action and corrective action, including their effectiveness (clause 10.2)
- Evidence of the results of continual improvement (clause 10.3)
- Procedure for Communication (clause 7.4.1)
- Procedure for Document and Record Control (clause 7.5)
- Procedure for Operational Planning and Control (clause 8.1)
- Procedure for Change Management (clause 8.1.3)
- Procedure for Operational control on Procurement (clause 8.1.4)
- Procedure for Emergency preparedness and response (clause 8.2)
- Procedure for Monitoring, Measuring and Analysis (clause 9.1.1)
- Procedure for Compliance Evaluation (clause 9.1.2)
- Procedure for Internal Audit (clause 9.2)
- Procedure for Management Review (clause 9.3)
- Procedure for Incident Investigation (clause 10.1)
- Procedure for Management of Nonconformities and Corrective Actions (clause 10.1)
- Procedure for Continual Improvement (clause 10.3)

Reference: EMS - Master list of Documented Information

7.5.2. Creating and updating

When creating and updating documented information The Organisation ensure appropriate:

a) Identification and description (e.g. a title, date, author, or reference number);

b) format (e.g. language, software version, graphics) and media (e.g. paper); and

c) review and approval for suitability and adequacy.

Reference: Procedure for Control of documented Information

7.5.3. Control of documented information

Documented information required by the Environmental, , management system and by this International Standard is controlled to ensure:

a) it is available and suitable for use, where and when it is needed; and

b) it is adequately protected

c) For the control of documented information, The Organisation address the following activities, as applicable:

d) Distribution, access, retrieval and use is controlled through Google Drive/Internal server - collaboration and document management platform from Google Drive/Internal server;

e) storage and preservation, including the preservation of legibility, is identified and documented in the Master list of Records.

f) control of changes (e.g. version control); is exercised by providing the change control only to EMS MR, and such information is also documented in the Master list of Documents.

g) Retention and disposition, , is identified and documented in the Master list of Records..

The Following is achieved through the system of Google Drive/Internal server and Login Credentials which are access controlled to ensure from loss of confidentiality, improper use, or loss of integrity is taken into consideration on the documented information.

Documented information of external origin, determined by The Organisation to be necessary for the planning and operation of the Environmental management system, is identified as appropriate, and controlled.

Reference: Procedure for Control of documented Information.

8) Operation

Reference: OCP for Management

8.1 EMS Operational planning and control

The Organisation has established implemented, controls and maintains the processes needed to meet Environmental management system requirements, and to implement the actions identified in external issues and internal issues by:

i. establishing operating criteria for the processes.

ii. implementing control of the processes, in accordance with the operating criteria.

The Organisation controls planned changes and review the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary.

The Organisation ensures that outsourced processes are controlled or influenced. The type and extent of control or influence to be applied to the processes are defined within the Environmental management system.

Consistent with a life cycle perspective, The Organisation shall:

a) Establish controls, as appropriate, to ensure that its Environmental requirements are addressed in the design and development process for the product or service, considering each life cycle stage;

b) Determine its Environmental requirements for the procurement of products and services, as appropriate;

c) Communicate its relevant Environmental requirements to external providers, including contractors;

d) consider the need to provide information about potential significant Environmental impacts associated with the transportation or delivery, use, end-of life treatment and final disposal of its products and services.

The Organisation maintains documented information to the extent necessary to have confidence that the processes have been carried out as planned.

Reference: Procedure for OCP

8.1. Emergency preparedness and response (E P & R)

The Organisation has established, implements and maintains the processes needed to prepare for and respond to potential emergency situations identified in its risks and opportunities

The Organisation:

a) prepares to respond by planning actions to prevent or mitigate adverse Environmental impacts from emergency situations.

b) responds to actual emergency situations;

c) takes action to prevent or mitigate the consequences of emergency situations, appropriate to the magnitude of the emergency and the potential Environmental impact;

d) providing training for the planned response

e) Periodically tests the planned response actions, where practicable;

f) Evaluating performance and, as necessary, revising the planned response, including after testing and, in particular, after the occurrence of emergency situations

g) Periodically reviews and revises the processes and planned response actions, in particular after the occurrence of emergency situations or tests;

h) communicating and providing relevant information to all workers on their duties and responsibilities

i) communicating relevant information to contractors, visitors, emergency response services, government authorities and, as appropriate, the local community

j) taking into account the needs and capabilities of all relevant interested parties and ensuring their involvement, as appropriate, in the development of the planned response

k) provides relevant information and training related to emergency preparedness and response, as appropriate, to relevant interested parties, including persons working under its control.

The Organisation shall maintain and retain documented information on the processes and on the plans for responding to potential emergency situations.

Reference: Procedure for Emergency preparedness and response

9) Performance evaluation

9.1. Monitoring, measurement, analysis and evaluation

9.1.1. General

The Organisation evaluates the Environmental performance and the effectiveness of the Environmental management system.

The Organisation determines:

a) What needs to be monitored and measured, including Environmental processes and controls;

1) The effectiveness of the action plans in achieving objectives and targets;

2) Actual versus expected consumption;

b) The methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results;

c) when the monitoring and measuring is performed;

d) who monitors and measures;

e) when the results from monitoring and measurement is analysed and evaluated; and

f) who analyses and evaluates these results.

The Organisation retains appropriate documented information as evidence of the monitoring and measurement results.

The organization investigates and respond to significant deviations in performance. The organization retains documented information on the results of the investigation and responses.

The organization retains appropriate documented information on the results from monitoring and measurement.

Reference: Procedure for Monitoring, measurement, analysis and evaluation.

9.1.2. Evaluation of Compliance

At planned intervals, the organization evaluates compliance with legal and other requirements related to its efficiency use consumption. The organization retains documented information on the results of the evaluation of compliance and any actions taken.

The organization establishes, implements, and maintains the processes needed to evaluate fulfilment of its compliance obligations.

The organization:

a) determines the frequency that compliance will be evaluated.

b) Evaluates compliance and take action if needed.

c) maintain knowledge and understanding of its compliance status.

The organization retains documented information as evidence of the compliance evaluation result(s).

Reference: Procedure for Compliance Assessment and Management.

9.2. Internal audit

9.2.1. General

The Organisation conduct internal audits every Six (6) months once to provide information on whether the Environmental management system:

a) Conforms to the organization's own requirements for its Environmental, , management system; and

ii. The requirements of this International Standard;

b) is effectively implemented and maintained.

9.2.2. Internal audit programme

The organization:

c) plans, establishes, implements and maintains an audit programme(s), including the frequency, methods, responsibilities, planning requirements and reporting. The audit programme(s) shall take into consideration the importance of the processes concerned and the results of previous audits;

d) Define the audit criteria and scope for each audit;

e) Select auditors and conduct audits that ensure objectivity and the impartiality of the audit process;

f) ensure that the results of the audits are reported to relevant management; and

g) retains documented information as evidence of the audit programme(s) and the audit results.

Reference: Procedure for Internal Audit

9.3. Management review

9.3.1. General

Top management reviews the organization's Environmental management system every six (6) months once to ensure its continuing suitability, adequacy and effectiveness.

Management review inputs

The management review include consideration of:

EMS management review input includes:

a) the status of actions from previous management reviews;

b) changes in:

1. External and internal issues that are relevant to the Environmental management system;

2. The needs and expectations of interested parties, including compliance obligations;

3. Its significant Environmental aspects;

4. Risks and opportunities;

c) The extent to which Environmental objectives have been achieved;

d) information on the organization's Environmental performance, including trends in:

1. Nonconformities and corrective actions;

2. Monitoring and measurement results;

3. Fulfilment of its compliance obligations;

4. Audit results;

e) Adequacy of resources;

f) Relevant communication(s) from interested parties, including complaints;

g) opportunities for continual improvement.

8.3 Management review results

The outputs of the management review include decisions related to continual improvement opportunities and any needs for changes to the Environmental management system. The Organisation retains documented information as evidence of the results of management reviews.

The output of the management review related to EMS includes:

- Conclusions on the continuing suitability, adequacy and effectiveness of the Environmental, management system;
- Decisions related to continual improvement opportunities;
- Decisions related to any need for changes to the Environmental management system, including resources;
- Actions, if needed, when Environmental objectives have not been achieved;
- opportunities to improve integration of the Environmental management system with other business processes,

The organization retains documented information as evidence of the results of management reviews.

Reference: Procedure for MRM

10) Improvement

10.1. General

The organization determines and selects opportunities for improvement and implements any necessary actions to meet and enhance its intended outcomes of its Environmental and EMS management system.

These include:

a) Improving services to meet requirements as well as to address future needs and expectations;

b) Correcting, preventing or reducing undesired effects;

c) improving the performance and effectiveness of the Environmental management system.

Reference: Procedure for Continual Improvement, Records of Management review meetings

10.2. Incident, Nonconformity and corrective action

When nonconformity occurs, including any arising from complaints, EMS incidents the organization ensures to:

a) react to the nonconformity and, as applicable:

1) Take action to control and correct it;

2) deal with the consequences, including mitigating adverse Environmental impacts;

b) Review the effectiveness of any corrective action, existing assessments of EMS impacts, EMS risks and other risks, as appropriate taken;

c) update risks and opportunities determined during planning, if necessary;

d) make changes to the Environmental management system, if necessary.

Corrective actions are taken appropriate to the effects of the nonconformities encountered.

The organization retains documented information as evidence of:

a) the nature of the nonconformities and any subsequent actions taken;

b) the results of any corrective action

The organization communicates this documented information to relevant workers, and, where they exist, workers' representatives, and other relevant interested parties.

Reference: Procedure for NC and CA Management

10.3. Continual improvement

The organization continually improves the suitability, adequacy and effectiveness of the Environmental management system. The organization considers the results of analysis and evaluation, and the outputs from management review, to determine if there are needs or opportunities that must be addressed as part of continual improvement to enhance Environmental performance and quality management system performance.

The organization continually improve the suitability, adequacy and effectiveness of the EMS management system, by:

a) Enhancing EMS and performance;

b) Promoting a culture that supports EMS and EMS management system;

c) maintaining and retaining documented information as evidence of continual improvement

Reference: Records of Management review meetings, Procedure for Continual Improvement.

E. References indicated in the Manual.

1. Documented statement of the scope of the Environmental management system TCTGCL/EMS/D/01
2. Organisation Chart, Site wise EMS Team, Responsibility and authority document TCTGCL/EMS/D/03
3. EMS Objectives, Objective Tracking Sheet TCTGCL/EMS/D/04
4. Procedure for Context Management TCTGCL/EMS/SOP/01
5. Procedure for Aspect Impact assessment and identification of control. TCTGCL/EMS/SOP/03
6. Procedure for Compliance Assessment and Management TCTGCL/EMS/SOP/05
7. Procedure for OCP - Environmental Operational control procedures TCTGCL/EMS/SOP/06
8. Procedure for Review and performance management TCTGCL/EMS/SOP/07
9. Procedure for Competence Management TCTGCL/EMS/SOP/08
10. Procedure for Control of documented Information TCTGCL/EMS/SOP/09
11. Procedure for management of change TCTGCL/EMS/SOP/10
12. Procedure for purchase management TCTGCL/EMS/SOP/11
13. Procedure for Emergency preparedness and response TCTGCL/EMS/SOP/12
14. Procedure for Monitoring, measurement, analysis and evaluation TCTGCL/EMS/SOP/13
15. Procedure for Internal Audit TCTGCL/EMS/SOP/14
16. Procedure for MRM TCTGCL/EMS/SOP/15
17. Procedure for NC and CA Management TCTGCL/EMS/SOP/16
18. Procedure for Procedure for Continual Improvement TCTGCL/EMS/SOP/17
19. Master List of EMS Documented Information

**************End of the document*************

TCTGCL		
Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
Document Level	Level 2	
Document Type	System Procedures	
Standards		
ISO 14001:2015 ☑		
Prepared by	**MR - Environmental Management System**	
Approved by	EGC	
Revision Number	**Revision date**	**Effective date**
01	29.10.2024	29.10.2024
Initial Effective Date	29.10.2024	
Applicable Sites		

Abuja Office:
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Kaura District, FCT Abuja, Nigeria

Port Harcourt Office:
The Chesopiri, Glasshouse
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Air Force Base, Port Harcourt, Rivers State, Nigeria

Group web site: www.chesstgroup.com.ng

Management Representative	Thompson Douglas

Contents

A. Revision History & Amendment Status

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Reason for Change	New document for establishing and implementing the IMS – Integrated Management System Considering ISO 14001:2015 - Environmental management systems
Change Details	Entire document
Raised By	MR
Approved By	EGC

1. Purpose and Scope

To establish a documented procedure to define the process of conducting Context risk assessment. This procedure is applicable for risks related to all the processes identified for EMS Internal issues, external issues and needs and expectations determined related to relevant interested parties.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 4.1, 4.2 and 6.1.1

3. Responsibility

3.1. Primary: Management Representative, Department Leads

3.2. Secondary: Process Owners, Process Members

4. Abbreviations, Terms and Definitions

4.1. EMS: Environment management system

5. Procedure Description

5.1. General

5.1.1. All the processes related to EMS in the organization are identified and listed.

5.1.2. Each Process maps the internal issues and external issues that are relevant to its purpose and that affect its ability to achieve the intended outcome(s) of its EMS and improve its environment performance Also the needs and expectations or interested parties determined from context of the organization are considered to conduct the risk assessment.

5.1.3. When Determining the needs and expectations or interested parties, the organisation takes into consideration to

5.1.3.1. ensure that these requirements are taken into account;

5.1.3.2. Review at defined intervals its legal requirements and other requirements.

5.1.4. The factors identified, are categorised as positive or negative based on its influence to the EMS of the organisation.

5.1.5. The analysis is carried out by the following branches:

5.1.5.1. Petrol Filling Station, Gas Plant and CNG Conversion Plant Construction

5.1.5.2. Real Estate Agency Service

5.1.5.3. Compliance Certificates Registration and Renewal Service

5.1.5.4. Outdoor Billboard Advertisement Service

5.1.5.5. Architectural Animation Rendering Service

5.1.6. The impact the factor has on Environment Performance is identified.

5.1.7. Risks related to each process are identified. (Potential failures to achieve the objectives)

5.1.8. Risk identified are classified into

5.1.8.1. Operational Risk

5.1.8.2. Brand Risk

5.1.8.3. Financial Risk

5.1.8.4. Legal Risk

5.1.8.5. Technology Risk

5.1.8.6. Community Risk

5.1.8.7. Other (any other risk is specifically written down)

5.2. Risk Rating

5.2.1. The severity of implications (consequences) and likelihood of occurrence (probability) is identified from the following table and ranking given.

Risk Ranking Index		
Ranking	**Severity**	**Probability**
1	Negligible (no impact)	Rare (never occurred till now)
2	Moderate (internal department level impact)	Occasional (Once in a year) (1 incident)

3	Medium (Internal organisational level impact)	Normal (BI annual) (2-3 incidents in a year)
4	High (Impacts neighbours / surrounding community)	Frequent (Quarterly) (4-11 incidents in a year)
5	Very High (Impacts legal / organisation brand names)	Very frequent (monthly >12 incidents in a year)

5.2.2. For severity and probability ranking 1 is considered as lowest and 5 is considered as highest Values

5.2.3. The product of severity and probability is considered as risk value

5.2.4. Based on the risk value arrived the risk is categorized as low / medium / high according to the following table:

RISK TREATMENT

1 to 8	Low	Acceptable
9 to 16	Medium	Action required (mitigation plan)
17 to 25 / Severity 5	High	Not acceptable -(Risk Treatment)

5.2.5. Risk values from 1 to 8 will be considered as low and risk can be acceptable.

5.2.6. Where ranking is 9 to 16 the risk level is considered as medium and an action plan is initiated to reduce the probability of occurrence.

5.2.7. Where the ranking is falling between 17 to 25 is considered as highest and programs to be initiated to eliminate the risk / to reduce the probability of occurrence.

5.2.8. On implementing the mitigation plan / engineering controls / programs, rankings given are reviewed and revised, at least after 6 months of implementation.

5.2.9. Based on revised ranking values further course of action is decided according to the ranking obtained.

5.3. Review of the studies

5.3.1. As and when new process is included / needs and expectations of interested are changed risk assessment is reviewed and updated.

5.3.2. Once every 6 months, the studies are reviewed for adequacy

5.3.3. The risks identified and actions implemented against the same are reviewed in management review meetings.

6. Annexure, Records, References

6.1. Context Risk Register TCTGCL/EMS/SOP01/D01

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
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Standards		
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New Rev No and Date	29.10.2024
Reason for Change	New document for establishing and implementing the EMS – Management System Considering ISO 14001:2015 - Environmental management systems
Change Details	NA
Raised By	MR
Approved By	EGC

1. Purpose and Scope

The purpose of this procedure is to provide for a system and instructions, and to assign responsibilities for identifying and documenting environmental aspects and also determining environmental aspects involved in the products manufactured by the organization and how it considers a life cycle perspective.

This procedure applies to the ’s activities, products, and services that can interact with the environment; whether they are carried out or generated in-house, purchased, Outsourced or subcontracted.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 6.1.2

3. Responsibility

3.1. Primary: MR, Department leads

3.2. Secondary: Process Owners, Process Members

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

5. Procedure Description

5.1. Initial Identification of Environmental Aspects

5.1.1. In the initial phase of establishing and implementing the EMS, environmental aspects are identified by a multidisciplinary team including representatives of various departments and functions in the company. The EMS Representative is responsible for establishing and directing the team.

5.1.2. External consultants and experts may also be included or assist the team.

5.1.3. Each member of the team inventories and reviews relevant activities, services in his or her department or area of expertise and, using the criteria defined in the organisation and prepares a list of identified environmental aspects. EMS Representative coordinates the assignment of specific areas and types of activities, products, and services to ensure that everything is covered.

5.1.4. Environmental aspects identified by the team are discussed at a special meeting chaired by the EMS Representative. Each member of the team presents his or her aspects and the team evaluates whether the aspects are relevant and fit the definition, guidelines, and per the criteria; and that there are no duplications. The EMS Representative notes all aspects that pass the evaluation and compiles a combined, comprehensive list of all environmental aspects.

5.1.5. The combined list is then presented to the top management for review and for possible identification of additional aspects that may have been missed.

5.1.6. This review also includes the legal counsel, or someone else with the knowledge of environmental laws and regulations and the environmental compliance history of the company.

5.1.7. The final list of environmental aspects identified by this initial review is recorded in the Environmental Aspect Log.

5.2. Ongoing Identification of Environmental Aspects

5.2.1. Changes and development of new activities, products, or services may invalidate previously identified environmental aspects or require the addition of new aspects to the list. Examples of such changes include:

5.2.1.1. Modification and development of new services / activities;

5.2.1.2. Changes in processes and technology, and introduction of new processes;

5.2.1.3. Significant expansion or reduction of capacity;

5.2.1.4. New outsourced processes, suppliers and subcontractors;

5.2.1.5. Addition or relocation;

5.2.1.6. Changes in the surrounding community;

5.2.1.7. Changes in laws and regulations (that would promote higher awareness of certain aspects);

5.2.1.8. Temporary projects, such as construction, installation of new equipment, and so forth.

5.2.2. On ongoing basis, the top management and departmental managers are responsible for identifying changes in activities, services that either create new environmental aspects or invalidate previously identified aspects.

5.2.3. New environmental aspects may also be identified through the management review or by internal or external audits of the EMS.

5.2.4. New environmental aspects, and requests to delete obsolete aspects, are communicated to the EMS Representative.

5.2.5. The EMS Representative reviews the proposed aspects for relevance and conformance with the definitions, guidelines, and as per the criteria; and documented information of the new aspects in the Environmental Aspect Log.

5.3. Environmental Aspect Log

5.3.1. Environmental Aspect Log is used for recording initial and new environmental aspects, and invalidating previously identified aspects that are no longer valid.

5.3.2. It establishes the criteria for identifying and selecting the environmental aspects

5.3.3. The purpose of identifying environmental aspects is to create a broad inventory of activities, processes, materials, products, and services — or their elements — that can possibly impact the environment

5.3.4. At this stage, the significance of an aspect should not be considered. This will be done at the next stage when significance will be formally evaluated for each individual aspect.

5.3.5. However, while at this stage organisation wants a broad pool of all possible aspects, we have to avoid trivializing this process. If an aspect is so trivial — in relation to other aspects — that it obviously does not make any sense to even subject it to a formal evaluation of significance, it should not be brought up.

5.3.6. The following categories of activities and products are considered and reviewed to identify environmental aspects:

5.3.6.1. Processes and operations

5.3.6.2. Storage and handling of materials and products

5.3.6.3. Equipment maintenance

5.3.6.4. Facilities operation and maintenance

5.3.6.5. Transportation and transportation equipment

5.3.6.6. Purchased (or subcontracted) products and services

5.3.6.7. Outsourced activities

5.3.7. When determining its environmental aspects, the organization can consider:

5.3.7.1. emissions to air;

5.3.7.2. releases to water;

5.3.7.3. releases to land;

5.3.7.4. use of raw materials and natural resources;

5.3.7.5. use of energy;

5.3.7.6. energy emitted (e.g. heat, radiation, vibration (noise), light);

5.3.7.7. generation of waste and/or by-products;

5.3.7.8. use of space.

5.3.8. Each category is further broken down into specific activities and products, as applicable for individual departments.

5.3.9. Activities, products, and services are analysed for aspects related with the activity and their potential impacts on the environment.

5.3.10. Environmental aspects of activities and processes are also considered in abnormal and unusual operating conditions — for example, start-up, shutdown, cleaning, maintenance and malfunction etc.

5.3.11. Each activity is assessed for understanding whether they are routine or non-routine tasks.

5.3.12. Environmental aspects of activities and processes are also considered in abnormal and unusual operating conditions — for example, start-up, shutdown, cleaning, maintenance and malfunction etc.

5.3.13. When identifying environmental aspects, the question is not only whether the activity or service actually impacts the environment, but also whether it can potentially impact the environment.

5.3.14. Environmental aspects must be considered irrespective of existing operational controls. Once the aspect is identified, these controls may be then integrated into the EMS.

5.3.15. Only those environmental aspects that can be controlled by the organisation and over which the organisation can be expected to have influence are relevant. Identification of aspects that organisation cannot influence does not make any sense, because the EMS system will not be able to do anything about them.

5.3.16. Typically, the types of activities or services that the organisation cannot control are those that are determined by others, over whom we have no direct influence; and when there is no realistic choice of using alternative materials, processes, technologies, or methods.

5.3.16.1. Aspects inherent in a process technology when there are no alternative technologies or when the technology cannot be changed for economic or competitive reasons (in this case the degree of impact of an aspect can be still controllable).

5.4. Assessing the Significant Environmental Aspect

5.4.1. The purpose of evaluating significance of environmental aspects is to select a group of aspects that will become the focus of the EMS, and for which the organisation will consider implementing special controls and monitoring systems and may develop environmental objectives and targets.

5.4.2. This group of aspects defines the direction of our environmental effort and allocation of resources for the protection of the environment.

5.4.3. While the evaluation of significance of environmental aspects is carried out using a systematic and deliberate process, logic and judgment must also be used in the final selection. The systematic process alone cannot absolutely guarantee correct results.

5.4.4. Significance of environmental aspects is evaluated using a systematic risk analysis methodology.

5.4.5. Aspects are rated with regard to the severity of associated impacts, probability of occurrence, and other relevant factors.

5.4.6. The results are entered on the Environmental Aspect Log, and the combined significance rating is calculated using a formula.

5.4.7. The significance rating is established for each aspect, the team goes over the list again to verify that the results of the analysis make sense and are generally in agreement with the intuitive judgment of the team.

5.4.8. The Business risk and opportunity associated with the impact is also identified and the risks are categories as Acceptable and Unacceptable risks based on its nature of impact to the organisation.

5.4.9. If risk/opportunity is acceptable no specific action is taken against the same, else the risk and opportunity is addressed on its need.

5.4.10. Significant assessment is also carried out on overriding factors in addition to rating system.

5.4.10.1. Whether impact is associated with compliance obligation

5.4.10.2. Whether impact is associated with Emergency situation

5.4.11. Impact Assessment – Assess the effect on the environmental releases identified in the inventory analysis on:

5.4.11.1. air,

5.4.11.2. water,

5.4.11.3. land,

5.4.11.4. natural resources,

5.4.11.5. flora,

5.4.11.6. fauna,

5.4.11.7. humans

5.4.12. Determine its environmental requirements for the procurement of materials and services, as appropriate;

5.4.13. Communicate relevant environmental requirement(s) to external providers, including contractors;

5.4.14. Consider the need to provide information about potential significant environmental impacts associated with the transportation or delivery, use, end-of-life treatment and final disposal of its products and services.

5.5. Establishing Controls

5.5.1. Establish the monitoring and measuring system to verify the implementation of controls.

5.5.2. Planning actions to identify and establish controls

5.5.3. Controls options include:

5.5.3.1. Identifying and establishing operational controls

5.5.3.2. designing processes in such a way as to prevent error and ensure consistent results;

5.5.3.3. using technology to control processes and prevent adverse results (i.e. engineering controls);

5.5.3.4. using competent personnel to ensure the desired results;

5.5.3.5. performing processes in a specified way;

5.5.3.6. monitoring or measuring processes to check the results;

5.5.4. Determining the use and amount of documented information necessary.

5.5.5. Identifying and controlling through establishing measurable objectives.

5.5.6. Staff participation is important in aspect impact

5.6. Review of studies

5.6.1. Once in every 6(six) months the Environment management team reviews the study in planned manner.

5.6.2. Upon any changes carried out in organisation system, product processes etc.

5.6.3. Upon occurrence of any incident.

5.7. Process of Change / change management

5.7.1. Any change carried out that impacts EMS management system shall be submitted in Change initiation form to assistant EMS MR.

5.7.2. The EMS MR shall review if the necessary EMS related aspects and are identified with necessary controls.

5.7.3. The relevant OCP's and Management Programs shall be reviewed for verification of controls.

5.7.4. The change shall be submitted to MR, along with any document change request for modification in documents.

5.7.5. The EMS MR shall update the Aspect impact document with necessary study as relevant to the change.

5.7.6. The EMS MR shall review the change initiation format, along with Aspect studies as relevant to the change and approve the change if all requirements to the EMS management system are compliant.

5.8. Mitigation Strategies / Operational Controls

5.8.1. RETHINK: Step back and think about the type of consumer you want to be and what this means for the environment.

5.8.2. REFUSE: Think before you buy and be prepared to not buy at all. Green consumers place themselves at the start of the buy-and-use cycle. They buy less and buy products that do the least harm to the environment.

5.8.3. REDUCE: Buy less, buy products that have little or no packaging and that last a long time, borrow instead of buy, and compost. Items that are no longer needed or used are donated or sold.

5.8.4. REUSE: Upcycle instead of throw away. Examples: glass jars can be used to store dry goods, old calendar pages are used as envelopes, old toothbrushes are used to clean hard to reach places, empty toothpaste tubes are used as funnels.

5.8.5. REPAIR: Try to fix items before disposing of them. Our current culture has been called a "throwaway society" because more items end up in the landfill than need to. This harms the environment and uses more of the earth's resources to make new items. We can help conserve the earth's resources by fixing things and participating in the "Repair Movement".

5.8.6. REGIFT: When you regift, you give someone a gift that you received from someone else. Don't feel guilty! Passing it on to someone who will enjoy it more than you is a good thing. You just need to follow this etiquette: You are certain the gift is something the recipient would enjoy. The gift is brand new and comes in its original box. The gift isn't handmade or a family treasure.

5.8.7. RECYCLE (Compost): Put things back into the waste stream to be used again for something else. Battery waste, E-waste, Hazardous waste, Bio medical waste is disposed to authorised representative nominated by Pollution control board. Glass is used for roads, plastics are melted down to make new products, and the organic waste that we compost is used to fertilize our gardens.

5.8.8. Rot The final of the R’s of Sustainability is rot, or rather, allowing your organic waste (food scraps, grass clipping, etc.) to decompose in a process typically referred to as composting. That rotting organic waste can be transformed over time into a nutrient rich soil amendment.

6. Annexure, Records, References

6.1. Annexure 1: Rating Table

6.2. Annexure 2: Probable Aspect and Impact Lists

6.3. Aspect Impact Log IEI/EMS/SOP03/D01

Annexure 1: Rating Table

Rating	Probability of Occurrence	Impact on Air and Noise	Impact on Water and Land	Impact on Flora and Fauna	Impact on Community	Impact on Resources / Energy
1	Never Heard of it in industry	No Damage	No Damage	No Effect	No Harm	No Effect
2	Incident Heard in Industry	Slight Damage - reduction in air quality / Noise >65 db	Slight Damage - reduction of soil and water quality	Slight Effect - reduction of quality in flora and fauna	Slight Health Harm, may receive complaints	Slight Effect (green renewable resource impact)
3	Incident Heard in company	Minor Damage - Reduction in air quality <45 µg/m3 24-hour mean / Acoustic ambient Noise >75 db	Minor Damage - reduction in quantity of fertile soil or water	Minor Effect - reduction in quantity of Flora and Fauna	Minor Health issue, Safety Injury, may require treatment / diagnosis	Minor Effect (non renewable resource impact)
4	Incident happens several time / years in company	Local Damage - Reduction in air quality <60 µg/m3 24-hour mean / Acoustic ambient Noise >85 db	Local Damage - Depletion of Land / fertile soil quality and water availability	Localised Effect - Depletion of flora and fauna	Major Health / Safety Impact, requires hospitalisation	Localised Effect (Shortage or resource in locality within 50 kms range)
5	Incident happens several times in a year in localised location	Major Damage Reduction in air quality <85 µg/m3 24-hour mean / Acoustic ambient Noise >100 db	Major Damage - Complete loss of soil fertility and water availability	Major Effect - Extinction of flora and fauna	Fatality	Major Effect (Shortage or resource in locality more than 50 kms range)
Risk Exposure	High - if Score is more than 972, any severity is more than 4 and if it is a legal / emergency requirement Medium - if score is between 486 - 972 Low if score is less than 486 (probability 2, remaining impacts are 3)					

Prepared By: (EMS MR)	Approved By: (EGC) THOMPSON DOUGLAS

Annexure 2: Probable Aspect and Impact Lists

Aspect	Definition	Examples of Potential Impacts
Air emissions / Greenhouse gas contribution	Gas emitted into the air from AC's / HVAC / DG's processes, such as ODS [CFCs in building chiller systems], VOCs [fugitive emissions from vehicle fuelling operations and painting activities], criteria pollutants [facility engine generators], dust, vehicle exhaust, aircraft exhaust, Odor.	Air pollution (smog, acid rain, dust, visual impairment)
		Ozone depletion
Biological waste generation	Generation/ disposal of biological products that can be infectious or biohazardous, such as sharps, infectious substances and autoclave wastes.	Human health impact
		Biological material dispersal
Cultural disturbance	An event or circumstance that interrupts the relationship between the environment and	Damage to native resources
		Impact to community
		Loss of biodiversity

	cultural resources, such as impacts historic properties, socioeconomic impacts, environmental justice impacts, and visual impacts.	
Ecological disturbance	An event or circumstance that interrupts the relationship between the environment and organisms, such as hydrological alteration, vegetation alteration, habitats, wetlands, threatened and endangered species, invasive species, coastal resources, prime farmlands, soil erosion and food waste.	Migration of indigenous species
		Introduction of non-native species
		Loss of biodiversity
Energy consumption	The use of energy as a source of heat or power or as a raw material input to a manufacturing process, including electricity, petroleum products,	Resource depletion

	and alternative fuels.	
Fuel consumption / Greenhouse gas contribution	The amount of fuel used for gross generation, providing standby service, start-up and/or flame stabilization.	Resource depletion
		Air pollution
Blast / Fire	The emissions or damage to the surrounding	Impact to community
Hazardous materials releases	The release of hazardous materials (substances that are harmful to human and environmental health and/or safety in relatively small quantities. Such materials include flammable, combustible, corrosive, reactive, and toxic substances as well as any other substance defined as "hazardous" by the state or federal government) into the environment.	Human health impact
		Soil contamination
		Land Pollution

Hazardous waste generation	The generation of hazardous material (substances that are harmful to human and environmental health and/or safety in relatively small quantities. Such materials include flammable, combustible, corrosive, reactive, and toxic substances as well as any other substance defined as "hazardous" by the state or federal government) into the environment. Examples include degreasing solvents, waste paints, used oil, hazardous batteries [lead-acid, lithium, NiCd], empty chemical containers, fluorescent bulbs.	Land Pollution
		Human health impact
Natural resource consumption	The consumption of a natural resource (a naturally occurring material such as coal,	Resource depletion

	wood and minerals that can be exploited by people).	
Noise emissions	The emissions of human-created noise harmful to health or welfare such as aircraft operations, vibration, visual impairment, light emissions.	Noise Pollution
Non-hazardous waste generation	The generation of waste that is non-hazardous and does not pose substantial or potential threats to public health or the environment such as (scrap, pallets, cardboard, paper, rags, construction debris	Land Pollution
Radiation emissions	The emissions of radiation (energy from heat, light, sound) that is emitted from operations such as the use/disposal of sealed sources, use/disposal of isotopic solutions, and generation of	Radiation damage
		Heat damage

	ionizing or nonionizing radiation.	
Oil spills/releases	The spill or release of oil into the environment.	Species habitat alteration
		Ecological damage
		Land Pollution
Stormwater runoff	Surface water runoff that flows into storm sewers or surface waters.	Water Pollution
		Soil contamination
		Watershed alterations
Toxics substances releases	The release of poisonous substances known or believed to be harmful to people's health, often producing chronic, irreversible physical problems and possibly harming subsequent generations including PCBs, asbestos and lead based paint.	Human health impact
		Toxics contamination or addition to air, land, waterway
Wastewater discharge	The discharge or release of wastewater into the environment from operations including painting operations, metal etching/plating, small	Groundwater contamination
		Sedimentation of water courses

	photographic activities, vehicle maintenance areas, sewage, and storm water.	
Water consumption	The consumption of water for daily operations.	Resource depletion
Detoriating Water quality	The quality of water	Human health impact
Zero landfill - Recycling of used materials such as steel, aluminium, copper, glass bottles and paper	Recycle When You Can.	Improvement in use of resources
removal of pollutants from the air or water, enhancing air quality	Chimney / Stack Less pollutant materials Tree / green plantations	Improvement in air and water quality
restoring land by removing decontaminated soil	Improving Soil fertility Generation of Compost from organic wastes	Improvement in Soil fertility
Conserving, harvesting power and	Unplug Devices and Appliances. Use Energy-Efficient	Sustainability of resource

water	Light Bulbs. Solar Power Rain water harvesting plant	
Zero Print / Reuse of print	Zero Paper printing facility Recycled paper user Double side printing	Improvement in use of resources

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
Document Level	Level 2	
Document Type	System Procedures	
Standards		
ISO 14001:2015 ☑		
Prepared by	**MR Environmental Management System**	
Approved by	EGC	
Revision Number	**Revision date**	**Effective date**
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Initial Effective Date	29.10.2024	
Applicable Sites		

Abuja Office:
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Management Representative	Thompson Douglas

Contents

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Sl. No	01
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Reason for Change	New document for establishing and implementing the EMS - Management System Considering ISO 14001:2015 - Environmental management systems
Change Details	Entire document
Raised By	MR
Approved By	EGC

1. Purpose and Scope

The purpose if this procedure is to provide a documented methodology for identifying operational controls for the identified significant Aspects to improve and/or control where OCP absence could lead to deviation from EMS Management System. Applicable for all the processes, activities covered under the scope of EMS Management System.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 8.1

3. Responsibility

3.1. Primary: Department Heads, Process Owners, Process Members

3.2. Secondary: MR

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management Systems

4.2. OCP: Operational Control Procedure

5. Procedure Description

5.1. General

5.1.1. The list of Significant Aspects – Impacts becomes the major input for setting of operational control procedures.

5.1.2. All significant impacts are considered for conducting a study on establishment of objectives and operational control procedures. EMS Team Members carry out this study.

5.1.3. All those activities calling for an operational control procedure, the respective Process Owners shall discuss with EMS team members and ensure that the operational control procedures are prepared to address the significant impact.

5.1.4. Hierarchy of controls shall be considered while establishing the operational controls for significant Aspects

5.1.5. Operational controls shall be exercised on Suppliers, outsourced activities, subcontractors, upstream and downstream vendors, as necessary to minimise environmental impacts and occupational health and safety risks

5.1.6. EMS OCP's are to be established with criteria for the processes, including the effective operation and maintenance of facilities, equipment, systems and energy-using processes, where their absence can lead to a significant deviation from intended energy performance;

5.1.7. The organization shall communicate the criteria to relevant person(s) doing work under the control of the organization; implementing control of the processes in accordance with the criteria, including operating and maintaining facilities, equipment, systems and energy-using processes in accordance with established criteria

5.1.8. Operational control procedures are also made for activities significantly interacting with the environment Eg: D.G sets, Hazardous waste handling & disposal etc.

5.1.9. These procedures include instructions for controlling Aspects relating to the operations carried out by the Organisation.

5.1.10. These procedures are also applicable to sub-contractors/suppliers working at the Organisation, where OCP adherence absence could lead to deviation from EMS policy, objectives and targets.

5.1.11. These operational control procedures are prepared to carry out the operations associated with the Significant Impact in a controlled manner.

5.1.12. The MR approves operational controls. The master Copy details of operation Control Instructions are available with MR.

5.1.13. Operational controls are also established wherever Impacts associated with changes.

5.1.14. Controls related to purchased goods, equipment's & services including contractors & visitors related to the work place.

5.1.15. Aspects will be identified by Purchase department for the purchase of goods & services.

5.1.16. For significant, control methods will be established and same will be communicated to concerned suppliers

5.1.17. At security Information on EMS system will be given for the visitors and the suppliers visiting to Organisation for the compliance with Established and Implemented EMS.

5.1.18. The EMS team members shall identify the employees who undertake the activities and operations associated with the operational controls and ensure that the requirements and operating criteria are communicated to and understood by them.

5.1.19. The EMS team members identify the contractors, suppliers, members of the regulated community, and other members of the public who undertake activities associated with the operational controls. Requirements for these suppliers will be communicated

6. Annexure, Records, References

6.1. Department wise OCP documents TCTGCL/EMS/SOP06/D03

Annexure 2: OCP consideration in Procurement				
The organization shall establish and implement criteria for evaluating energy performance over the planned or expected operating lifetime, when procuring energy using products, equipment and services which are expected to have a significant impact on the organization's energy performance.				
SEU	**Equipment Procurement Specifications**	**Services procurement Specifications**	**Next Review**	**Responsible**
IT Equipment	All new IT equipment must comply with international environmental standard, such as Energy Star	Ensure that designers and maintenance companies are energy competent and experienced	Upon ISO 14001 Certification	Purchase and Project Head, MR
Maintenance contract		Maintenance companies will be awarded extra points if they are ISO 14001certified	Upon ISO 14001 Certification	Purchase and Project Head, MR

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
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Management Representative	Thompson Douglas

Contents

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Approved By	EGC

1. Purpose and Scope

This procedure defines the methods for;

• Identifying and assessing the legal and other EMS requirements that are applicable to TCTGCL

• Creating awareness, how TCTGCL's activities are or will be affected by applicable legal and other requirements

• Communicating to employees and other relevant interested parties

• Evaluating and assessing the compliance to any legal/ regulatory and other requirements.

Applies to all Legal and other requirements to which TCTGCL subscribes.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 4.2, 6.1.3, 9.1.2

3. Responsibility

3.1. Primary: Top Management, HR, MR

3.2. Secondary: Department leads

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

5. Procedure Description

5.1. Legal and other Requirements Identification & Evaluation

5.1.1. The EMS MR, Process Owner is responsible to identify the Environmental System Legal & other requirements applicable to TCTGCL and document in the legal register.

5.1.2. Legal register will detail the title, year published, location and status of all applicable legal & other requirements.

5.1.3. The EMS MR / Process Owner will evaluate which requirements apply and where they apply, and who needs to receive which kind of information of EMS and legal and other requirements.

5.1.4. The EMS MR / Process Owner should seek out the most appropriate means for gaining access to information, including the media supporting information (e.g. News Paper, Government Gazette Decisions, regulatory body's circulars, Internet etc.)

5.1.5. The EMS MR / Process Owner shall maintain up-to-date listing of applicable Legal and other requirements through the maintenance, access and review of the relevant documents at least annually.

5.1.6. It is the responsibility of the users in the respective division to ensure that the copies of legal and other requirements received are checked for its contents, issue control status and are properly filed to ensure access and retrievability of these documents.

5.2. Legal and other Requirements Communication

5.2.1. Legal and other requirements (actual text, summary of analysis, where appropriate) are made available in locations, which are to be decided, by the EMS MR / Process Owner and communicated to the other relevant interested parties.

5.2.2. It is the responsibility of the users in the respective division to ensure that the copies of legal and other requirements received are checked for its contents, issue control status and are properly filed to ensure access and retrievability of these documents.

5.2.3. Whenever external communication takes place with Regulatory Authorities with respect to enquiry of the latest legal and other requirements or clarifications, the details are logged in the Communication Log to demonstrate the evidences of communication.

5.2.4. EMS MR in coordination with the EMS core team, will identify and update the applicable EMS legal and other requirements (legislation, regulation, notifications, directives) pertaining to activities and services carried out for the product manufacturing, by utilizing one or more of the following resources in Corresponding websites – as applicable bi annual, based on organisation context

5.2.4.1. Liaison / Communication with statutory and regulatory authorities

5.2.4.2. Liaison with other group companies / External consultants

5.2.4.3. Other requirements, will be Customer / Corporate / HQ requirements

5.3. Conducting Regulatory the Compliance Evaluation /Assessment

5.3.1. The designated person is responsible for planning, scheduling and implementing internal EMS compliance assessment at least once in 12 months.

5.3.2. The designated person develops and maintains the EMS compliance assessment program and issues the program along with the legal compliance check list to the auditor.

5.3.3. During a compliance assessment, auditors will record information, such as: items checked, individuals interviewed any possible regulatory non-compliance issues in the Audit Non-conformance Report. The assessment team shall promptly notify the EMS MR or designated person of any possible regulatory non-compliance. Upon verification of non-compliance, the Management Representative shall notify to the management.

5.3.4. The system owner reviews possible regulatory non-compliance issues with the responsible and accountable area or department representative. The auditee prepares a Corrective action Report identifying the issues and actions required.

5.3.5. Upon completion of the corrective action, the process owner will acknowledge completion of these actions by signing the original Corrective action report and return it to the auditor.

5.3.6. Corrective actions will be verified by the EMS MR. When full compliance is determined or corrective actions are accepted, the assessment team member would sign the original Corrective report and return it to the designated person for closure and filing.

5.3.7. Periodically, the designated person will present a summary of open Corrective Action Reports that are based on regulatory non-compliance, to management for review.

6. Annexure, Records, References

6.1. Legal Register TCTGCL/EMS/SOP05/D01

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
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Change Details	
Raised By	MR
Approved By	EGC

1. Purpose and Scope

The purpose of this procedure is to identify competence, awareness and training needs of employees, assessment of training resources, provide training and maintenance of employee training records. This procedure shall apply to all personnel who have job function, which is included within the scope of the EMS

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 7.2, 7.3

3. Responsibility

3.1. Primary: HR, MR, Department leads

3.2. Secondary: Process owners, process users

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

5. Procedure Description

5.1. General

5.1.1. It shall be the responsibility of the Operations & HR to identify and evaluate the competency for job functions. It shall be the responsibility of the EMS MR, to plan and initiate training along with the Supervisor or their delegates.

5.1.2. All personnel performing EMS related activities would receive an initial indoctrination to the Environmental Management Program; and EMS requirements from the EMS MR, or his delegate and / or third party trainer. This indoctrination shall include a thorough description of the work to be performed including their roles and responsibilities in achieving conformance to the EMS Policy, Objectives & Targets and emergency preparedness and response requirements. Records of an individual's training will be maintained in his/ her personnel file.

5.2. On the job training

5.2.1. On the job training, alongside with someone with required skill, shall remain as the predominant training method. During the training, the employee shall be made aware of the significant aspects and Impacts related to his job and the potential consequences of deviating from the specified operating procedures. Other methods depending on what gives best results shall be In House Training Attendance Sheet, Visiting Specialist, External training courses.

5.2.2. Training set in force due to feedback from the field

5.2.3. Training shall also be given to the personnel if an incident / non-conformity has shown the need for retraining; includes equipment, Services and procedures. When new equipment or procedures are introduced, a training session shall be given to all Technicians in such a manner to prevent non-conformances / incidents.

5.3. Periodic EMS training

5.3.1. All personnel performing EMS related activities should be given periodic EMS training.

5.3.2. This training shall include awareness of changes to EMS Manual, Management System Procedures, Dept. Procedures/ SOPs, Standards or other training as per the requirements of the customers/ contractor. Monthly EMS meeting covers this EMS training.

5.4. Training Plan

5.4.1. The HR Team and EMS MR shall plan the Training Plan for The Year from the inputs received from various dept. The training requirements identified by the customer and any additional training if required as per his performance shall also be incorporated in the training schedule

5.5. Monitoring Effectiveness

5.5.1. The Managing Director or his delegates in conjunction with the HR, Engineering / HRD / SCM MR shall periodically evaluate the training requirements / effectiveness utilizing Performance Evaluation Sheet, Training Progress Report, Customer feedbacks, non-conformances, incident, achievement of set Objectives & targets.

5.5.2. The effectiveness of internal trainings conducted shall be evaluated by suitable means such a group discussions, questionnaire etc. and shall be documented. The effectiveness need not be monitored for approved Third Party trainings.

6. Annexure, Records, References

6.1. Employee EMS Skill Matrix TCTGCL/EMS/SOP08/F01

6.2. Training Calendar TCTGCL/EMS/SOP08/F02

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
Document Level	Level 2	
Document Type	System Procedures	
Standards		
ISO 14001:2015 ☑		
Prepared by	**Environmental Management System**	
Approved by	EGC	
Revision Number	**Revision date**	**Effective date**
00	29.10.2024	29.10.2024
Initial Effective Date	29.10.2024	
Applicable Sites		

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Group web site: www.chesstgroup.com.ng	
Management Representative	Thompson Douglas

Contents

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Change Details	
Raised By	MR
Approved By	EGC

1. Purpose and Scope

This procedure describes the guidelines and methods of the following

1. Approval of the document for the suitability and adequacy prior to issue.
2. Update review and re-approve for any changes, modifications.
3. Identify the document no, titles, changes and current revision/issue.
4. Availability of current version at the point of use.
5. Document's identification, legibility, control, update and distribution of external and internal doc like specification, catalogues, user manual etc.
6. Preventing unintended use of obsolete documents.

The scope of this procedure applies to the documents and data coming under the review of TCTGCL EMS and the records which demonstrate the effective implementation of the EMS and provide objective evidence of compliance with specified requirements including documents of external origin.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 7.5.1, 7.5.2, 7.5.3

3. Responsibility

3.1. Primary: MR, Department Leads

3.2. Secondary: Process owners, Process Members

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

5. Procedure Description

5.1. General

The document and data may be stored either as hard copy or in electronic media or both. All documents generated within the Company will be on a fixed format covering the following two points:

5.1.1 The documents (procedures) shall address as a minimum the following points: Objective, Scope, Risk, References, Abbreviations/Definitions, Roles and Responsibilities, Process Description, EMS records, and Revision History.

5.1.2 Document Identification & Numbering System

5.1.3 CODING AND NUMBERING STRUCTURE GUIDE

EMSIPL/AAA/BB/00

DOCUMENT NUMBER

DOCUMENT CODE

DEPTARTMENT CODE

COMPANY CODE = TCTGCL (**TCTGCL**)

AAA= DEPT CODE

EMS – Integrated Management System

HR-Human Resource & Admin

FA - Finance& Accounts

ENG - ENGINEERING

SCM – Supply Chain Management

SDM – Sales and Business Development

BB = Document Code

M – Manual

SOP- Standard Operating Procedure

REG – Register

PR- Procedure

F- Formats/Check list/Log Sheets

00=Document Number

In serial for each document code

For example:

Coding & Numbering for EMS Manual

EMSIPL/EMS/M/01

→ Manual Code No

→ System Code

→ Company Code

Numbering for Procedures & SOPs

TCTGCL/AAA/PR/XX → Procedure No

→ Document -Code

→ Dept./System Code

→ Company code

Forms /Checklists (Record Documents of procedures)

TPF/AAA/F/XX

→ Format/Checklists No

→ Formats/Check list/Log Sheets

→ Dept. Code / SOP Number

→ Company code

5.2. Procedure Contents

5.2.1. All Procedure's and SOP shall be designed in the following structure, which contains

1. Revision History
2. Purpose and Scope
3. ISO Clause Linkage
4. Responsibilities
5. Abbreviations, Terms and Definitions

6. Procedure Description
7. Annexure, Records, References

5.3. Document Preparation, Review & Approval

The document/data preparation activity can be assigned to any competent TCTGCL employee and/or approved Consultants.

5.3.1 The document / data shall be reviewed and approved for its adequacy by authorized personnel prior to issue.

5.3.2 All EMS documents (Manual, Procedures and Operational control procedures) shall be reviewed by the process owner and forms will be reviewed by EMS Manager / Department Head.

5.3.3 The EMS documents shall be approved by the EGC.

5.3.4 The process owner/review/approval of the EMS Manual, Procedures and Operational procedures shall be identifiable in the first page of the document.

5.4. Revision Control & Issue Mechanism

5.4.1 The EMS facilitates the issue and revision of a document on an individual page basis as well as on the entire document basis as appropriate.

5.4.2 The top page of the document consists of the control block for indicating Subject, Revision status & revision dates. Bottom of the front page will indicate the Review and Approval Authority.

5.4.3 When a document is issued for the first time, all pages of the document shall bear the revision status as Rev 00.

5.4.4 At the later date, if a page or pages of the document is revised for the purpose of incorporating changes, the revision status of the particular page(s) will be changed to next revision number (e.g. Rev 0 to Rev 1) & shall be reflected on the Revision Status

5.4.5 In a situation, where substantial amount of changes have been made to the document, the document may be revised as a whole with a new issue number and the revision no. to be reset to 00. Changes in the issue no. shall be made in accordance with the following cases:

- Major change in the standards;

- Changes in legal requirements;
- Any major changes as deemed necessary by the EGC.

5.4.6 The EMS- Manager shall be responsible for maintaining a Master list of EMS Documents including EMS Manual, Procedures, and Operational control procedures & Forms. Refer to “Master List of Documents”

5.5. Document Distribution

5.5.1 The PROCESS OWNER shall be responsible for maintaining the “Document Distribution list” for all digital copies of the EMS Manual, Procedures and Operational control procedures issued.

5.6. Document & Data Changes

5.6.1 Any document & data changes of the EMS shall be upon obtaining prior permission and approval from process owner shall be done using Document Amendment Format.

5.6.2 Document and data changes shall be reviewed by EMS and approved by EGC. Changes to the document shall be recorded in brief under the revision history sheet of the manual or under section revision history of the relevant document/amendment history of the last page of the relevant document.

5.7. Documents of External Origin

5.7.1 Documents of external origin shall include, but not be limited to National and International Standards / Customer / Sub Contractor submitted procedures/instructions etc. used for the implementation of the EMS Management activities.

5.7.2 The PROCESS OWNER shall maintain a list of such documents of external origin in their custody with relevant issue/edition numbers (where applicable) and ensure that the applicable and relevant issues/editions of documents are only used by the people involved in the EMS activities.

5.8. Removal & Identification of Invalid/Obsolete Documents

5.8.1 It shall be ensured that invalid and/or obsolete documents are removed from all points of issue or use. The receiver of the controlled copy shall destroy the obsolete/invalid version while replacing the same with the newly issued document.

5.8.2 In the event of an obsolete/invalid document retained for legal and/or knowledge/preservation purposes, the same shall be marked "OBSOLETE" shall be maintained by the PROCESS OWNER.

5.9. Document Stored in Electronic Media

The latest "Master Copy" documents in PDF format are stored in 'N' drive: Admin: EMS: and maintained by EMS Manager.

5.10. Control of Documented Information

5.10.1 EMS Manual, Procedures & Operational control procedures will clearly identify the various EMS records to be maintained for each activity.

5.10.2 Where possible, EMS records shall be generated on prescribed forms and formats. These forms and formats are developed and controlled as per the 5.1 to 5.9.

5.10.3 Records shall be filed in a logical and orderly manner and kept where possible in cabinets such that they are readily accessible and retrievable.

5.11. Storage of Documented Information

All EMS documented information will be stored in the operational area such that they are easily retrievable. The PROCESS OWNER will ensure that the records are easily retrievable for reference, protected against misuse, damage or deterioration. The EMS MANAGER / PROCESS OWNER shall ensure that appropriate Occupational conditions are maintained for the preservation of records.

5.12. Retention & Disposal of EMS Documented Information

5.12.1 Where files become too large or unmanageable, they may be removed to an archive storage area.

5.12.2 All EMS records shall be maintained for a period as mentioned in the "Master List of Records". They can be shredded after that period.

5.12.3 All EMS records/documents with pass retention periods shall be reviewed by the PROCESS OWNER / EMS Manager prior to disposal. They would however seek the guidance of the PROCESS OWNER before any such disposal activity.

5.13. Access to Documents & Records

5.12.4 EMS documents/records shall be accessible to employees at the below levels.

EMS Documents	Accessible levels
EMS Documents (Manual, EMSSOP& Formats)	EGC /EMS/ Process Owners
Operational Procedures	EGC /EMS/ Process Owners
Forms & checklist	EGC /EMS/ Process Owners

5.12.5 Relevant records shall be made available to customers or their authorized representatives, regulatory authorities upon request from EGC/PROCESS OWNER.

6. Annexure, Records, References

6.1. Master list of Documented Information TCTGCL/EMS/SOP09/F01
6.2. Document Amendment Format TCTGCL/EMS/SOP09/F02
6.3. List of Documents of External Origin TCTGCL/EMS/SOP09/F03
6.4. List of records TCTGCL/EMS/SOP09/F04

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
Document Level	Level 2	
Document Type	System Procedures	
Standards		
ISO 14001:2015 ☐		
Prepared by	**MR Environmental Management System**	
Approved by	EGC	
Revision Number	**Revision date**	**Effective date**
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Management Representative	Thompson Douglas

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Raised By	MR
Approved By	EGC

1. Purpose and Scope

To establish a method to be used for the addition or change of any system, procedure, working instruction, form, equipment or process within the system. This procedure is applicable to all areas of the Organization included within the scope of the EMS Management System and shall be administered by the EMS MR.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: NA

3. Responsibility

3.1. Primary: MR, Department Leads

3.2. Secondary: Process Owners

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

5. Procedure Description

5.1. General

5.1.1. Any employee who wishes to propose a new (or an improvement or change) system, procedure, working instruction, equipment or process shall apply this procedure

5.1.2. The concerned employee may initiate a management of change proposal from his/her own idea or from another party be it a colleague, client or other.

5.1.3. The concerned employee shall utilize the Management of Change Form to conduct the management of change proposal process.

5.1.4. Physical

5.1.4.1. These can be engineering or physical changes that include new or modified equipment, a new or renovated facility, and process that can pose new impacts that need to be evaluated.

5.1.5. Operations

5.1.5.1. Changes to how work is done or how employees are managed will need to be assessed for possible new risks. New Standard Operating Procedures (SOP), changes to maintenance safety checks, new technology, or changes brought by reorganization need to be considered for new risks.

5.1.6. Personnel

5.1.6.1. Changes to staffing, training for employees, and other changes that will impact the safe execution of tasks should be evaluated before implementation.

5.1.7. If the proposal reflects the immediate work process, then it shall be routed through the department supervisor who shall sign his approval of the same. It shall then be forwarded to the respective Manager, (if applicable) for his review and approval.

5.1.8. HOD / process owner shall review and analyse the consequences of the changes, resources required, competency of employee etc. and inform or discuss with management.

5.1.9. Management shall review the proposal of change with analysis report submitted by HOD or process owner. If required external expertise shall be taken.

5.1.10. Manager or process owner shall amend as requested by Management or implement the as approved by Management.

5.1.11. Any change resulting revisions / Actions shall be documented at the table at the bottom of the Management of Change form prior to the final approval by EGC.

5.1.12. During any change it shall be assessed if any change needs to be done for Legal and other requirements.

5.1.13. Any process, new development, infrastructure changes are carried out – Aspect impact

6. Annexure, Records, References

6.1. Change Management record TCTGCL/EMS/SOP10/F01

6.2. Continual Improvement List

1.0 Purpose/ Scope:

This procedure defines the mechanism for controlling Environmental Management System documents. The purpose of this procedure is to ensure that those personnel requiring access to environmental management system documents have the most up-to-date issues and are aware of the document control process.

2.0 Activities affected:

All areas and departments.

3.0 Definitions:

None

4.0 Exclusions:

None

5.0 Procedure:

1. The Management Representative shall be responsible for coordinating, developing, issuing and controlling environmental management system documents through electronic media or hard copies.
2. Procedures shall be in the format specified by Environmental Procedure EP-001.
3. The EMS manual is prepared by MR and approved by EGC prior to use.
4. The Environmental Procedures are prepared by MR, reviewed with HOD’s for adequacy and approved by Head of Manufacturing prior to issue.
5. The Operational Control Procedures (OCP) and Work Instructions (WI) are prepared by concerned departments based on the significant aspects of their area / department activities, reviewed with MR for adequacy and approved by Functional Heads.
6. The Environmental Formats (EF) are prepared by MR and approved by Head of Manufacturing.
7. Master documents are identified by the words “MASTER COPY” in GREEN and all controlled documents are the copy of master documents and shall be marked with the words "CONTROLLED COPY” in red.

8. Controlled versions of system documents are available in the computer system for access to Read- only by area or department personnel.
9. All new controlled documents shall be issued by the Management Representative through Document Release Note.
10. Each area or department manager or designee should maintain a list of all EMS documents, originated internally or externally, relevant to their area or department, as applicable. They ensure that the documents remain legible and readily identifiable.
11. The Management Representative shall ensure that changes and current revision status of documents are identified and the concerned HOD's are aware of that.
12. The HOD shall ensure that relevant versions of applicable documents are available at point of use.

5.1 Modification / Revision procedure:

This is applicable for all the documents pertaining to EMS. Modifications / changes required in the System Manual, Environmental Procedures and Formats are carried out by MR.

The changes required in other documents is first sent through a Change request by the head of department practicing the same to MR. He verifies the implication of this change viz with other relevant documents and integrity of the EMS and offers his comments in consultation with TFT. Based on the acceptability, the modifications are carried out. These are indicated in the related Distribution Note

The updated document is re-approved respectively as per section 5.0 and issued to the concerned departments, through Distribution Note.

The revised document will have higher revision no. and the status shall be indicated in the revision no. column of each page of relevant section. If a new issue is released then its revision level shall be indicated by 00.

5.2 The handling of obsolete documents is as follows:

Whenever higher modified document is received, one of the following actions is taken:

a) The old document is however continued to be used till the modified documents becomes effective.

b) If previous document is required for reference purposes, it is identified as 'Obsolete' and retained by the concerned departments. For EMS, these documents are retained for 12 months from the date of issue of the documents, if required.

6.0 General Rules:

All documents not marked with the words "Controlled Copy" or "Master Copy" in red shall be considered uncontrolled.

7.0 References:

7.1 EP-001-Formatting Environmental Procedures, Operational Control Procedures, Work Instructions and Formats

8.0 Forms Used:

8.3 FT/MR/34 Change Request

9.0 Records:

9.3 FT/MR/34 Change Request

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Sl. No.	**Rev.No.**	**Date**	**Amendments Made**

Prepared By :	**Approved By :** THOMPSON DOUGLAS

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
Document Level	Level 2	
Document Type	System Procedures	
Standards		
ISO 14001:2015 ☑		
Prepared by	**MR Environmental Management System**	
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1. Purpose and Scope

The purpose of this procedure to establish, implement & maintain a procedure for setting EMS objectives and targets for developing the EMS Management Program for achieving EMS objectives and targets. Applicable to the activities, processes, products or services of the organization covered under EMS Management Systems. The purpose of measuring EMS performance is to provide information on the progress and current status of the strategies, processes and activities used by TCTGCL to control Aspects

Measurement information sustains the operation and development of the EMS management system, and so the control & impact, by:

- Providing information on how the system operates in practice
- Identifying areas where remedial action is required
- Providing a basis for continual improvement and
- Providing feedback and motivation.

Applies to TCTGCL and Contactors EMS performance measurement and monitoring.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 6.2, 9.1.1

3. Responsibility

3.1. Primary: EMS Team, MR

3.2. Secondary: Department Leads

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

5. Procedure Description

5.1. Establishing and Maintaining Objectives and Targets:

5.1.1. Objectives and targets have been established for significant aspects and the same are controlled by the Operating Control Procedure (OCP) / Work Instructions (WI).

5.1.2. In establishing objectives and targets consideration has also been given to:

5.1.2.1. EMS objectives and targets are established within the scope of the organization and are decided based on:

5.1.2.2. EMS Policy - Objectives to be in line with the stated EMS Policy

5.1.2.3. Legal and other requirements- whether the Aspect is a legal Requirement and present status with respect to the consent /legal Requirement.

5.1.2.4. Technological options - whether it is technically possible to reduce the Scale of the Aspect

5.1.2.5. Financial requirements- whether financial budget is available for Implementing the necessary change

5.1.2.6. Operational requirement - what will be the operational control to reduce the

5.1.2.7. Business requirement - whether the objective will be important from business point of view.

5.1.2.8. Views of interested parties - Views / concerns of interested parties and what should be the control and whether it will be beneficial for them.

5.1.3. The reviews of above are taken into consideration in the establishment of EMS objectives.

5.1.4. Wherever financial sanctions are required, the EMS Team, Process owners along with MR shall discuss with Top Management for obtaining necessary approvals / sanctions.

5.1.5. List of significant Aspects and List of unacceptable s is identified based on the Aspect impact study conducted by the representatives of the organization.

5.1.6. MR & EMS team members, relevant interested parties shall review the significant aspects and consider for setting as objectives.

5.1.7. Also whenever an aspects is leading to a Business concern, management can decide on taking it as an objective as policy decision along with the other set objectives.

5.1.8. EMS objectives and targets shall be established for having contribution from all relevant function within the Organization.

5.1.9. EMS objectives and targets shall be reviewed every year, if applicable, in light of new regulations, new projects and commitments and changes in operations and updated.

5.1.10. The respective EMS Team Member, along with the Assistant shall develop a detailed EMS Management program for achieving the objective.

5.1.11. The program shall detail the responsibility, time frame and the action plan by which the EMS objectives can be achieved. The program shall be reviewed by the MR and GM or Top Management Representative shall approve the EMS Management program.

5.1.12. The progress of the Management Program is monitored activity-wise and details are recorded. Once the MP is completed operational control / Work Instructions shall be revised or newly established, if required for monitoring.

5.1.13. The status of the EMS objectives and Management program shall be reviewed in Management review meetings. MR Submits MP's summary to management during Meeting.

5.1.14. The EMS policy and objectives shall be reviewed and revised based on the progress, changing circumstances and as a commitment for continual improvement.

5.1.15. All program & objectives are reviewed regularly during MRM, it will amended wherever necessary to achieve the objectives.

5.1.16. Performance against objectives and targets shall be reviewed once in three months by MR and reported at the Management Review Meeting . The management review shall endorse the EMS objectives and targets. New objectives and targets are introduced when EMS aspects have been identified and prioritized for attention.

5.1.17. Existing objectives and targets are changed if auditing results indicate changes in the status of the activity, if circumstances change, or if there have been changes in the EMS legislation, regulation or standards that warrant changes in the status of the activity.

5.2. Establishing and Maintaining EMS Management Programs:

5.2.1. Management programs have been established and maintained for achieving the EMS objectives and targets developed for the significant EMS aspects identified and reviewed once in three months.

5.2.2. Management programs have identified means, time frames and the responsibility for achieving associated objectives and targets. Responsibility has been identified at each relevant function and level of the organization.

5.2.3. Specific programs are Conservation of Energy, Material Management, Conservation of Water, Conservation of Oils, Conservation of Packing Wood and Conservation of Paper.

5.2.4. TCTGCL has established the measuring process to verify whether a written

5.2.4.1. EMS policy statement: Exists;

5.2.4.2. Meets legal requirements and best practice;

5.2.4.3. Is up to date; and

5.2.4.4. Is being implemented effectively.

5.2.5. The information to demonstrate that the policy is being implemented effectively will be collected through the overall process of measuring EMS performance and from the auditing process.

5.3. Organizing

5.3.1. The measurement process will gauge the existence, adequacy and implementation of arrangements to:

5.3.2. Establish and maintain management control of EMS in TCTGCL;

5.3.3. Promote effective co-operation and participation of individuals, EMS representatives (CFT) and relevant groups so that EMS is a collaborative effort;

5.3.4. Ensure the effective communication of necessary information throughout TCTGCL; and

5.4. Planning and implementation

5.4.1. The measurement process will gauge the existence, adequacy and implementation of the planning system. The planning system should be able to:

5.4.2. Deliver plans with objectives for developing maintaining and improving the EMS management system

5.4.3. Operate, maintain and improve the system to suit changing needs and process impacts; and

5.4.4. Promote a positive EMS culture.

5.4.5. Measuring performance

5.5. Audit and review

5.5.1. Audit and review form the final steps in the EMS management control loop, so their existence, adequacy and implementation is included within the measuring process.

5.5.2. Measuring failure - reactive monitoring

5.5.3. Environmental incidents and

5.5.4. Weaknesses or omissions in performance standards and systems.

5.5.5. The reactive monitoring system should answer the following questions:

5.5.5.1. Where are they occurring?

5.5.5.2. What is the nature of the failures?

5.5.5.3. How serious are they?

5.5.5.4. What were the potential consequences?

5.5.5.5. What are the reasons for the failures?

5.5.5.6. What are the costs?

5.5.5.7. What improvements in the EMS are required?

5.5.5.8. How do all the above points vary with time?

5.5.5.9. Are we getting better/worse?

5.6. Calibration and Maintenance of EMS Monitoring Equipment:

5.6.1. Each applicable area will maintain a list of EMS key characteristic equipment requiring calibration / verification and the corresponding calibration / verification frequency.

5.6.2. These EMS monitoring equipments are calibrated and maintained at a frequency consistent with manufacturers' recommendations or at the frequency set by the user department depending upon usage of equipment. Relevant areas and departments shall maintain calibration and maintenance records as necessary to prove conformance with this procedure.

5.7. Measuring the EMS culture

5.7.1. TCTGCL's EMS culture is an important factor in ensuring the effectiveness of control. The EMS management system is an important influence on the EMS culture, which in turn impacts on the effectiveness of the EMS management system. Measuring Aspects of the EMS culture therefore forms part of the overall process of measuring EMS performance.

5.7.2. Many of our activities, which support the development of a positive EMS culture, will be measured. They are included under the headings (the 'four Cs'):

5.7.2.1. Control;

5.7.2.2. Communication;

5.7.2.3. Co-operation; and

5.7.2.4. Competence.

5.7.3. The EMS related behaviour of individuals at all levels of TCTGCL is influenced by the EMS culture, and the behaviours in turn shape the culture. Behaviours, which support and promote a positive EMS culture and an effective EMS management system, need to be included within the measurement process

5.8. Measuring progress with plans and objectives

5.8.1. One of the key outputs of the planning process is plans and objectives to develop, maintain and improve the EMS. The various plans across the different parts of TCTGCL need to be aligned to meet the overall aims and to provide a coherent approach to effective control. The overall goals set at the highest level in TCTGCL will be put into effect by a series of linked plans and objectives. These should cascade down the various levels within TCTGCL.

5.8.2. TCTGCL conducts the checks at successive levels within TCTGCL/Contractors at corporate and individual level, reflecting the appropriate hierarchical structure. At individual level, the information gathering may form part of a performance appraisal system

5.8.3. The performance measurement system must include checks on whether the particular management arrangement or control system has the capability to deliver the required outcome and is fit for purpose.

5.8.4. There are essentially two ways to be considered to ensure the desired outcomes will be achieved:

5.8.5. To establish that a system is in place means checking that there is a plan-do- check-act process so that:

5.8.6. Clear scope and objectives are defined for the outcome, i.e what the system is intended to deliver;

5.8.7. Clear responsibilities are assigned to individuals within the system, which they are held accountable for;

5.8.8. The methods of monitoring compliance and effectiveness of the system are defined;

5.8.9. The presence of the plan-do-check-act elements alone is not sufficient. The system needs to be 'technically adequate' or fit for purpose relative to the application.

5.9. Compliance

5.9.1. TCTGCL ensures performance measurement provides information to determine the level of compliance with the management arrangements and control systems.

5.10. Deployment

5.10.1. TCTGCL will gauge the performance, which they can apply at different levels. For example, looking at a specific management arrangement (ex: competency) or control system looking at a range of management arrangements and control systems across the organisation.

5.10.2. The compliance measurement will provide information to determine whether the workplace precautions are:

5.10.2.1. In place;

5.10.2.2. Operating; and

5.10.2.3. Effective.

5.11. Routine EMS Inspection

5.11.1. Periodical routine inspection of the various facilities of the TCTGCL and Contractors are carried out by the EMS and EMS Department. These inspections are carried out on a random / planned basis. Photographs of the various locations are also taken wherever required.

5.11.2. The non-conformances (if any) identified by the EMS and EMS Department include the following but not limited to:

5.11.2.1. Any deviations from Legal and other requirements compliance

5.11.2.2. Any deviations in waste collection and disposal

5.11.2.3. Any deviations in monitoring and measuring equipment status/ performance

5.11.2.4. Any deviations from Emergency Preparedness and Response Procedure

5.11.2.5. Any deviations from the EMS Policy

5.11.2.6. Any deviations from the Operational Controls

5.12. Maintenance of Monitoring & Measuring Equipment:

5.12.1. EMS Manager shall ensure that monitoring & measurement devices are maintained at a frequency consistent with the manufacturer's recommendations / usage of the equipment.

5.12.2. Monitoring & Measuring equipment's shall be

5.12.2.1. Calibrated or verified, or both at specified intervals prior to use, against measurement standards traceable to international or national measurement standards; where no such standards exist, the basis used for calibration or verification is recorded;

5.12.2.2. Adjusted or re-adjusted as necessary;

5.12.2.3. Have Identification in order to determine its calibration status :

5.12.2.4. Safeguarded from adjustments that would invalidate the measurement result;

5.12.2.5. Protected from damage and deterioration during handling, maintenance and storage

5.12.3. Records of Calibration Status and schedule shall be maintained.

6. Annexure, Records, References

6.1. EMS Performance Statistics TCTGCL/EMS/SOP13/D01

6.2. EMS parameters Monitoring equipment's Calibration List TCTGCL/IMS/SOP13/D02

6.3. EMS Objective and Indicators Tracking sheet TCTGCL/IMS/SOP13/F01

6.4. EMS Management programs TCTGCL/IMS/SOP13/F02

Annexure A – EM&S Monitoring Plan

Sl. No	Description of the EHS Performance	Frequency	Responsibility	Records to verify
1.	Air at identified workplaces (within premises and periphery- Ambient)	Annually	MR	Air Monitoring Certificate
2.	Indoor air Work area air sampling and testing f	Annually	MR	Air Monitoring Certificate
3.	Light Measurements	Annually	MR	Light Measurement record
4.	Treated water	Annually / as when supplier changes	MR	Water Test reports
5.	Monitoring of noise (within premises and periphery)	Annually	MR	Noise Certificate / Noise Monitoring records
6.	Water consumption	Monthly / Half yearly	MR / Admin	Water Consumption records
7.	Electricity consumption	Monthly / Half Yearly	MR / Admin	Energy consumption record
8.	Monitoring waste disposals	Half yearly	MR / HR	Waste Disposal Records

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems			
Document Level	Level 2		
Document Type	System Procedures		
Standards			
ISO 14001:2015 ☑			
Prepared by	**MR Environmental Management System**		
Approved by	EGC		
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Applicable Sites			

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Management Representative	Thompson Douglas

Contents

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Change Details	Entire document
Raised By	MR
Approved By	EGC

1. Purpose and Scope

The purpose of this procedure is to lay down the methodology for conducting Internal Audits for assessing the conformance to the planned arrangements, requirements of the International Standard and the Environmental Management System (EMS) of TCTGCL. This procedure covers the TCTGCL EMS at all levels. The internal audit process is covered for all sites and shifts implementing the EMS

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 9.2

3. Responsibility

3.1. Primary: MR, Trained Internal auditors

3.2. Secondary: Department Leads, process owners

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

4.2. Audit Criteria: Set of policies, processes or requirements

4.3. Audit evidence: Records, statements of fact or other information, which are relevant to the audit criteria and verifiable (Audit evidence may be qualitative or quantitative)

4.4. Audit findings: Results of the evaluation of the collected audit evidence against audit criteria (Audit findings can indicate either conformity or nonconformity with audit criteria or opportunities for improvement)

4.5. Audit conclusion: Outcome of an audit, provided by the audit team after consideration of the audit objectives and all audit findings

4.6. Auditee: Department or Person being audited

4.7. Auditor: Person with the competence to conduct an audit

4.8. Audit team: One or more auditors conducting an audit, supported if needed by technical experts (One auditor of the audit team is appointed as the audit team leader; the audit team may include auditors-in-training)

4.9. Audit program: Set of one or more audits planned for a specific time frame and directed towards a specific purpose. (An audit program includes all activities necessary for planning, organizing and conducting the audits)

4.10. Audit plan: Description of the activities and arrangements for an audit

4.11. MR: Management Representative

4.12. Audit scope: Extent and boundaries of an audit

4.13. (The audit scope generally includes a description of the physical locations, organizational units, activities and processes, as well as the time period covered.

4.14. Competence: Demonstrated personal attributes and demonstrated ability to apply knowledge and skills.

4.15. Non-conformance: The absence or failure to implement and maintain, one or more EMS system requirement, or a situation which would, on the basis of available objective evidence, significant doubt as to the EMS of activities or services rendered by TCTGCL.

4.16. Major Non-conformance: Total system failure in implementation and maintain against the requirements of EMS (or) One situation or one EMS system requirement failure to implement and maintain which result in huge impact on customer satisfaction (or) Number of minor non-conformities reported within one quality management system requirement which raise significant doubt as to the quality of services rendered by TCTGCL.

4.17. Minor Non-conformance: Minor deviation from documented procedure or EMS requirement to meet the planned arrangements which may not have impact on quality of service / customer satisfaction/EMS performance.

4.18. OFI: Suggestion /Improvement points.

5. Procedure Description

5.1. Audit Review and Scheduling

5.1.1. The MR establishes and GM approves an Internal Audit Program.

5.1.2. The frequency of audits is based on the status and importance of the activity and past audit results but as minimum, all processes and activities are audited once in Six Months.

5.1.3. In addition to the planned program, additional audits are carried out, if required by the EMS team

5.1.4. The program is reviewed by the EMS - MR on regular basis and updated as necessary.

5.1.5. Audit frequency is planned based on

5.1.6. Previous audit result

5.1.7. Interested Party requirements

5.1.8. Qualification Criteria for Internal Auditors

5.1.9. Should have completed Internal Auditor course in EMS Management System.

5.1.10. EMS MR shall maintain a list of auditors.

5.2. Audit Preparation

5.2.1. Prior to the commencement of an audit, the EMS MR nominates an auditor who is competent to carry out the audit and independent of the activity to be audited. EMS MR circulates the Internal Audit Plan to the auditors as well as auditee 5 days in advance.

5.2.2. The auditor is issued with previous audit reports, noting any non-compliances and the corrective action agreed.

5.2.3. An Internal Audit Checklist is prepared (optional). This is based on Operational Procedure/activities to be audited, and the findings of previous Audit Reports (If appropriate)

5.3. Audit Performance

5.3.1. The auditor conducts the audit in line with audit scope using the relevant checklist, and/or a copy of the relevant procedure(s)

5.3.2. The information obtained is based on evidence, observations made directly by the auditor or from verbal communication with relevant personnel.

5.3.3. The checklist is completed as appropriate, with details of the objective evidence reviewed, non-conformances raised and the recommended action agreed with the personnel responsible.

5.3.4. Objective evidence of a deviation / failure to implement from approved procedures, documented EMS system requirements is considered as justification for raising Non-conformance.

5.3.5. sentence “Auditors shall capture the evidences separately for each standard during the internal audit for the different criteria and MR shall ensure all clauses of the standards are audited against different process as applicable to the process”,

5.4. Audit Report

5.4.1. Upon completion of the audit, the auditor raises Internal Audit Summary Report containing following information

5.4.2. All non-conformance raised;

5.4.3. Any conditions considered detrimental to EMS;

5.4.4. Any other observations (ex.: Positive Points seen which, of themselves, would not be classified as a nonconformance; and

5.4.5. Non-conformances are classified into major and minor as per above definition.

5.4.6. The auditor reviews the audit report with the Auditee and establishes (where appropriate) an Corrective Action which includes;

5.4.7. Correction & Corrective action to be undertaken;

5.4.8. the person responsible for the action;

5.4.9. the completion date of such action; and

5.4.10. the date of any follow-up audit

5.4.11. Both the auditor and Auditee sign the audit report and a copy is given to the Auditee for information and action.

5.4.12. Upon completion of the Audit Report, the auditor forwards completed audit checklist, NCRs, Observations, Summary Report to EMS MR.

5.4.13. EMS-MR will consolidate and present all internal audit findings at Management Review meetings.

5.4.14. EMS-MR completes the Audit Status in Internal Audit Program with;

5.4.15. Audit result;

5.4.16. Date of follow up audit (if appropriate).

5.5. Follow up audits

5.5.1. Where numerous or serious non-conformances have been identified during an audit, a follow up audit may be conducted to verify implementation of the necessary corrective action.

5.5.2. The Audit Report is referenced with the same number as for the original report, suffixed “F” and on completion, filed with the original report.

5.5.3. The performance of the audit is as for the original audit, but the audit is restricted to those non-conforming activities previously identified.

6. Annexure, Records, References

6.1. Internal Audit Calendar TCTGCL/EMS/SOP14/D02
6.2. Internal Audit Schedule TCTGCL/EMS/SOP14/F01
6.3. Internal audit checklist TCTGCL/EMS/SOP14/F04

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems		
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Standards		
ISO 14001:2015 ☑		
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Approved By	EGC

1. Purpose and Scope

The purpose of this procedure is to provide for a system and instructions, and to assign responsibilities for scheduling, conducting, and recording management reviews of the EMS management system. The review covers all elements of the EMS and includes sufficient information for management to make an informed decision on whether the EMS continues to be suitable, adequate and effective for its intended purposes, and whether decisions or actions need to be taken to ensure its continual improvement.

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 9.3

3. Responsibility

3.1. Primary: MR, Top Management

3.2. Secondary: EMS Core team, Department Leads

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

4.2. MRM: Management Review Meeting

5. Procedure Description

5.1. General

5.1.1. The Management Review is conducted to review the continuing suitability, adequacy and effectiveness of the established EMS.

5.1.2. MR arranges for the Management Review once in 6 months.

5.1.3. The members for the Management Review are identified, in the agenda of Management review meeting and is updated, circulated by the MR, one week prior to the MRM to all participants.

5.1.4. Top Management of the organisation chairs the MRM

5.1.5. The MR communicates to the concerned persons in advance for preparing and submitting their performance in the review meeting.

5.1.6. The Management Representative prepares the agenda for the review, which includes:

5.2. Agenda of meeting

5.2.1. review of EMS, environmental Policy and Objectives

5.2.2. review of EMS, environmental Scope of certification

5.2.3. the status of actions from previous management reviews;

5.2.4. changes in

5.2.4.1. external and internal issues that are relevant to the EMS, environmental management system;

5.2.4.2. the needs and expectations of interested parties, including compliance obligations;

5.2.4.3. its significant environmental aspects;

5.2.5. relevant communication(s) from interested parties, including complaints;

5.2.6. information on the performance and effectiveness of the environmental, management system, including trends in:

5.2.6.1. the extent to which objectives have been met;

5.2.6.2. EMS monitoring and measurement results;

5.2.6.3. nonconformities and corrective actions;

5.2.6.4. EMS monitoring and measurement results;

5.2.6.5. audit results;

5.2.6.6. the performance of external providers;

5.2.6.7. the adequacy of resources;

5.2.6.8. monitoring and measurement results;

5.2.7. energy performance inputs

5.2.7.1. the extent to which objectives targets have been met;

5.2.7.2. performance improvement based on monitoring and measurement results);

5.2.7.3. status of the action plans.

5.2.8. relevant communication(s) with interested parties;

5.2.9. opportunities for improvement.

5.3. Outputs

5.3.1. The organization retains documented information as evidence of the results of management reviews.

5.3.2. The outputs of the management review shall include decisions related to continual improvement opportunities and any need for changes to the EMS, including:

5.3.2.1. the EMS policy;

5.3.2.2. objectives, action plans or other elements of the EMS and actions to be taken if they are not achieved;

5.3.2.3. opportunities to improve integration with business processes;

5.3.2.4. the allocation of resources;

5.3.2.5. the improvement of competence, awareness and communication.

5.3.3. The output of the management review related to EMS includes:

5.3.4. conclusions on the continuing suitability, adequacy, and effectiveness of the Environmental management system.

5.3.5. decisions related to continual improvement opportunities.

5.3.6. decisions related to any need for changes to the Environment management system, including resources.

5.3.7. actions, if needed, when objectives have not been achieved.

5.3.8. any implications for the strategic direction of the organization.

6. Annexure, Records, References

6.1. Management Review Agenda TCTGCL/EMS/SOP15/F01

6.2. Management Review Minutes of meeting TCTGCL/EMS/SOP15/F02

TCTGCL

Environmental Management System document based on ISO 14001:2015 - Environmental management systems

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Document Type	System Procedures
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ISO 14001:2015 ☑	
Prepared by	**MR EMS Management System**
Approved by	EGC

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Applicable Sites

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Approved By	EGC

1. Purpose and Scope

To continually improve the suitability, adequacy and effectiveness of the EMS management system

2. ISO Clause Linkages

2.1. ISO 14001:2015 Clauses: 10.1

3. Responsibility

3.1. Primary: Department Leads, EMS Team

3.2. Secondary: MR

4. Abbreviations, Terms and Definitions

4.1. EMS: Environmental Management System

5. Procedure Description

5.1. General

5.1.1. Continual improvement commitment to constantly analyse your safety performance through fact-based data, to address root causes and system weaknesses as soon as they are identified, and to experiment with changes that will lead to long-term systems improvement.

5.1.2. Organisation has to address the continual improvement for

5.1.3. Enhancing EMS performance: For example improvement projects implemented to improve employee awareness of ASPECTS

5.1.4. Promoting a culture that supports an EMS management system: Including management walk-arounds

5.1.5. Communicating the relevant results of continual improvement to STAFF

5.1.6. Maintaining and retaining documented information as evidence of continual improvement. : For example, the improvement projects documentation, Change Improvement Corrective Action Reports that have been completed.

5.1.7. The most effective way to reduce accidents and improve safety in the workplace is to continuously review issues, incorporate solutions, and maintain a focus on safety at all levels of the organization.

5.1.8. Every project starts with a first step and you are not alone on this. Let's break it down into eight key elements that will help you to start working towards continuous safety improvement in the workplace.

5.2. Continual Improvement Processes

5.2.1. Include professionals

5.2.2. Expert assessments allow you to see the culture from a new and valuable perspective and can highlight key areas for improvement.

5.3. Find the root causes

5.3.1. When an issue is spotted, it can be tempting to throw a quick solution at it and consider that "job done". But if that issue keeps reoccurring, it's time to find the underlying concerns. As a bonus, by drilling down and doing a root cause analysis, you can end up solving other issues that you hadn't even noticed yet.

5.4. Keep Reviewing and improving

5.4.1. Continuous improvement relies on an evolutionary process of identifying issues, finding the root cause, and implementing an effective solution. While employees are being encouraged to communicate openly about issues and areas for improvement, it's important to invite them to give feedback on the program itself.

5.4.2. Energy performance improvement can be demonstrated in several ways, such as:

5.4.2.1. reduction in normalized energy consumption for the scope and boundaries of the EMS;

5.4.2.2. It is recognized that improvements are achieved based on the priorities of the organization.

5.4.2.3. Examples of continual energy performance improvement include, but are not limited to, the following.

- Total energy consumption decreases over time under similar conditions, e.g. a commercial building in a region where the temperature does not vary significantly.
- Total energy consumption increases, but the measure of energy performance as defined by the organization improves. In this case, a simple ratio where there is one relevant variable and no baseload.
- In most situations and organizations, there are multiple relevant variables requiring normalization, e.g. a dairy producing three different products (milk, cheese, yogurt) and affected by weather.

6. Annexure, Records, References

6.1. Continual Improvement Log TCTGCL/EMS/SOP17/ F01

1.0 Purpose/ Scope:

This procedure defines the process for controlling the environmental aspects of on-site contractors and their sub-contractors at TCTGCL.

2.0 Activities affected:

All areas / departments and authorized contractors to work on-site.

3.0 Definitions:

Method Statement: a written statement prepared by a contractor which outlines the work to be undertaken and the method(s) for minimizing and managing environmental impacts. The method statement includes an assessment of the environmental issues associated with specified work activities and measures necessary to minimize environmental impacts.

4.0 Exclusions:

4.1 Contractor activities and services that are not performed at the Facility / Plant.

4.2 Contractors performing emergency services.

4.3 Contractors providing clerical, accounting or other similar administrative services.

5.0 Procedure:

5.1 A Task Force Team lead by the MR develops a process to obtain and review contractor method statements.

5.2 The need for contractor services is identified and a request for a Method Statement is prepared by the initiator of contract.

5.3 Information related to contractor on-site activities shall be documented by the contractor using a Contractor Method Statement.

5.4 Completed contractor method statement forms will be submitted to the initiator of contract. The MR will evaluate method statements to identify potential environmental issues and concerns.

5.5 Prior to on-site work, contractors shall:

5.5.1 Be provided with information and documents to ensure their awareness of the TCTGCL Environmental Management System and their conformance to it.

5.5.2 Submit a completed Contractor Method Statement to the initiator of contract.

5.6 While on-site contractors shall conform to the TCTGCL's Environmental Management System, and to all applicable legal and other requirements.

5.7 Contractors shall maintain records as specified by the environmental management system and by contract requirements.

6.0 General Rules

Contractors shall ensure their on-site staff is aware of environmental management system requirements.

7.0 References

7.1 ISO 14001:2015, Element 8.1

8.0 Forms Used

8.1 EF-008.01: Contractor Method Statements

9.0 Records

9.1 EF-008.01: Contractor Method Statements

01	00	29.10.2024	New Issue
Sl.No.	**Rev.No.**	**Date**	**Amendments Made**

Prepared By :	**Approved By :** THOMPSON DOUGLAS

1.0 Purpose/ Scope:

This procedure describes the method to be implemented to secure approval from regulatory agencies for processes and activities at TCTGCL affecting air emissions, waste management or water discharges, as well as the method for other environmental approvals.

2.0 Activities affected:

All areas and departments

3.0 Definitions:

3.1 Regulatory Agency: Governmental unit delegated authority for implementing regulations related to ambient air quality, waste management and/or water discharge quality.

3.2 Process: Materials, activities, equipment associated with operations.

3.3 Permit: Consent, licenses, certifications or other authorizations issued by a government / regulatory body.

4.0 Exclusions:

None

5.0 Procedure:

5.1 Where operations are identified as potentially requiring environmental consent/ authorization the Management Representative shall coordinate the investigation and permitting process with Head of Manufacturing and other concerned.

5.2 All communications in connection with consents / authorizations, and specifically those with the relevant regulatory agencies, shall be undertaken in conformance.

5.3 The Head of Manufacturing and other concerned shall develop a strategy to secure consents in concurrence with existing operational timing plans. The Management Representative is responsible for timely communicating issues to the TCTGCL Management Team.

5.4 The Head of Manufacturing shall arrange the preparation, submission and negotiation of consent / authorization applications, in coordination through the MR. Consent / authorization obtained shall be reviewed to ensure that the conditions / directions, mentioned in the consents are adequately covered.

5.5 The TFT will review the terms and conditions in new consents / authorization and modify or establish operational controls necessary to ensure compliance with the consents.

6.0 General Rules:

None

7.0 References:

7.1 EP-002 Environmental Aspects, Objectives and Targets and Programs

8.0 Forms Used:

None

9.0 Records:

9.1 Consent for Air and Water

9.2 Authorization for Handling, Treatment and Storage of Hazardous Wastes.

01	00	29.10.2024	New Issue
Sl. No.	**Rev.No.**	**Date**	**Amendments Made**

Prepared By :	**Approved By :** THOMPSON DOUGLAS

1.0 Purpose/ Scope:

This procedure defines the framework for preparing for and responding to emergencies involving potential environmental incidents at TCTGCL.

2.0 Activities affected:

All areas and departments

3.0 Definitions:

3.1 Environmental Incident or Emergency Situation: Environmental emergencies are defined as "sudden-onset disasters or accidents resulting from natural, technological or human-induced factors, or a combination of these, that causes or threatens to cause severe environmental damage as well as loss of human lives and property."

3.2 Emergency Response: actions taken by personnel outside of the immediate work area to address an environmental incident.

4.0 Exclusions:

None

5.0 Procedure:

5.1 Potential environmental incidents and emergencies likely to occur at the TCTGCL shall be identified once in six month by the Task Force Team and documented according to EP- 002 and Emergency Response and Planning requirements.

5.2 Methods to respond to, mitigate and prevent environmental emergencies have been established and maintained at the TCTGCL, both in the MR and Emergency Coordinator office.

5.3 Adequate training (including mock drills) has been provided to appropriate TCTGCL staff to implement these procedures.

5.4 Roles and responsibilities for communications within the facility and for obtaining outside support services shall be established and maintained at the TCTGCL via the emergency plans.

5.5 Environmental emergency methods and communications will be tested at least annually. The MR shall maintain records of these tests. Methods to respond to, mitigate and prevent environmental emergencies will be amended as required based on the results of these tests.

5.6 Following an environmental emergency, the cause of the emergency and corresponding emergency methods shall be reviewed. Corrective actions will be identified and undertaken by implementing EP-012. Methods to respond to, mitigate and prevent releases that arise as a consequence of an environmental emergency shall be amended as required and the MR notified.

5.7 Where applicable, regulatory agencies shall be notified by the MR, of environmental incidents consistent with EP-006.

6.0 General Rules:

6.1 All emergency response activities are to be conducted within boundaries of training levels, appropriate procedures, and governmental regulations.

6.2 The Head of Manufacturing shall designate as Emergency Coordinator.

7.0 References:

7.1 EP-002 Environmental Aspects, Objectives and Targets and Programs

Prepared By :	**Approved By :** THOMPSON DOUGLAS

8.0 Forms Used:

8.1 EP-012 Non conformity, Corrective actions

9.0 Records:

9.1 EF-012 Corrective Action Report and associated records, related to training and procedures to mitigate these impacts are kept by the MR.

Prepared By :	**Approved By :** THOMPSON DOUGLAS

1.0 Purpose/ Scope:

This procedure defines the responsibilities and process for identifying and investigating non-conformities with the TCTGCL environmental management system, for taking action to mitigate any negative impacts caused, and for applying corrective actions.

2.0 Activities affected:

All areas and departments

3.0 Definitions:

None

4.0 Exclusions:

None

5.0 Procedure:

5.1 Where non-conformities or non-compliances are identified through the internal audit process, the responsible and accountable area or department representative, affected area or department manager, audit team member or TFT, as specified in EP-014, is responsible for:

a) Identifying and correcting nonconformities and taking action(s) to mitigating their environmental impacts
b) Investigating nonconformities, determining their causes and taking actions in order to avoid their recurrence.
c) Evaluating the need for action(s) to prevent nonconformities and implementing appropriate actions designed to avoid their occurrence.
d) Recording the results of corrective actions ns taken, and
e) Reviewing the effectiveness of corrective actions and preventive actions taken. Actions taken shall be appropriate to the magnitude of the problems and the environmental impacts encountered.

The environmental procedures or work instructions shall be modified are created suitably after taking the corrective actions and actions.

5.2 Where non-conformities are identified outside the internal audit process, the Management Representative will generate a Corrective Action Report Form EF-012.01,as appropriate. The affected area or department manager is responsible for:

a) Mitigating the negative impacts
b) Identifying the root cause(s) of these non-conformities
c) Identifying appropriate corrective and preventive actions (including modifying or creating environmental procedures and work instructions)
d) Planning and implementing corrective and preventive actions
e) Verifying that the actions taken have eliminated the causes for non-conformities and the environmental impacts.
f) Verifying the close-out and effectiveness of corrective actions and send the completed form to MR.

The Management Representative will verify proper implementation of corrective actions in the report and close.

6.0 General Rules:

6.1 All accidents, major spills, releases and emergencies shall be dealt with through environmental procedure EP-010 (Emergency Preparedness and Response).

6.2 All incidents including minor spills and leaks corrective and preventive report shall be used for recording non-conformities.

6.3 Action Plans may be used where appropriate for planning, scheduling and managing corrective actions.

6.4 Environmental Procedures (EPs), Operational Control Procedures, Environmental Work Instructions (EWIs) and/or training programs shall be modified and/or created where necessary to establish adequate controls for avoiding repetition of non-conformities.

7.0 References:

7.3 EP-010 Emergency Preparedness and Response

7.5 EP-014 Internal Audit

7.6 ISO 14001:2015, Element 10.2

8.0 Forms Used:

8.1 EF-012.01 Corrective action Report

8.2 EF-014.02 Nonconformance Report

9.0 Records:

9.1 EF-012.01 Corrective action Report

9.2 EF-014.02 Nonconformance Report

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1.0 Purpose/ Scope:

This procedure identifies the management of environmental records at TCTGCL.

2.0 Activities affected:

The areas and departments specified in the Master List of Environmental Records

3.0 Definitions:

Records: documented information that:

a) is evidence of an environmental activity or event that has been or is being performed, or
b) is required to be retained for future reference. It is information on environmental performance.

4.0 Exclusions:

None

5.0 Procedure:

5.1 Records shall be maintained and retained as specified in the Master List of Environmental Records.

5.2 Record retention will be consistent with applicable legal and other requirements.

5.3 Each area or department manager or designee shall have access to a master list of all EMS records relevant to their area or department, as applicable.

5.4 Each activity responsible for maintaining a record has the responsibility for establishing the method for filing and indexing records to ensure accessibility.

6.0 General Rules

Records shall be legible, readily retrievable and stored and maintained so as to prevent damage, deterioration or loss as appropriate to the importance of the record.

7.0 References

7.1 ISO 14001:2015, Element 7.5.3

8.0 Forms Used

8.1 EF-013.01 - Master List of Environmental Records

9.0 Records

9.1 EF-013.01 - Master List of Environmental Records

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1. OBJECTIVE :

To define the process of Identification of the Risk related to TCTGCL activities, products and services, evaluation of Risks in line with the ERM Methodology to identify the High Risks and further actions to mitigate the same

2. SCOPE :

This procedure applies to all activities, products and services of TCTGCL.

3. ISO 14001:2015 CLAUSE REF:

6.1 Actions to address risks and opportunities
6.1.2 Environmental aspects
6.1.3 Compliance Obligations
6.2.1 Environmental Objectives

4. RESPONSIBILITY :

- Identification of Process Risks – Process Owners
- Evaluation of Risks – Process Owners / HOD's
- Finalizing High Risks – Management Team
- Further actions to mitigate the Risks – Top Management / Process Owners
- Environmental Aspects – Management Team / Process Owners

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5. DEFINITIONS:

Risks

Risk is any external or internal uncertainty affecting implementation of Business Strategy and achievement of the targets

SWOT

Strength Weakness Opportunities and Threats.

PEST

Political, Economical, Social & Technological Factors

Risk Assessment

Risk assessment is the overall process of risk analysis and evaluation.

Inherent risk

Risk level assessed before taking into account any Existing Risk Measures and Controls.

Residual risk

Risk level assessed after taking into account any Existing Risk Measures and Controls

Risk Measures and Controls

Procedures, policies or any other measures that are already in place:

To minimize or mitigate the negative risk IMPACT when the risk event occurs **or**
To reduce the LIKELIHOOD of the occurrence of the risk.

Risk Impact

Risk impact refers to the financial or non-financial outcome of a risk event. There may be a range of possible outcomes associated with a risk event. There are five levels :

Insignificant
Minor
Moderate
Major
Severe

The Impact Descriptor

The Impact Descriptor sets out the definition of the various levels of impact severity and allows for a common basis in assessing impact across the group

KRI

Key Risk Indicator

Risk incident / Loss Event :

Refers to the actual occurrence of a risk event which results in the business unit suffering negative consequences. Risk incidents may point to a systemic problem in a process, or the lack of effectiveness or adequacy in the risk measures or controls. Or risk incidents could simply be some isolated events that could not possibly be prevented, but the consequences of the incidents must be mitigated as early as possible.

6. PROCESS FLOW :

Supplier	Input	Process	Resp.	Reference Document / Record
		Start		
Team member, Customer, Supplier, Legal / Statutory Agency	* Business strategies & plans • Business models, value drivers and capabilities • Value chain analysis • Key controls, risk management practices etc • SWOT analysis • Legal Requirements • Strategy • DFMEA / EFMEA / PFMEA * Environment Scan Results on new or emerging trends • PEST analysis	Risk Identification	Head - Conc. Function	Annexure-A
		Risk Analysis	Head - Conc. Function	Annexure-A
		Categorization of Risks	Head - Conc. Function	Annexure-A
	Risk Universe (in CURA), Severity and Likelihood of Risk Impact	Risk Assessment	Head - Conc. Function	Annexure-A
	Risk Universe (in CURA), Severity and Likelihood of Risk Impact	Risk Mapping For Risk Level	Top - Management	Annexure-A
		Risk Treatment	TM - Conc. Function	-
		Risk Monitoring and Control	Head - Conc. Function	-
		Review of effetiveness of Risk Register and updation of Risks	Top Management	Annexure-A
		End		

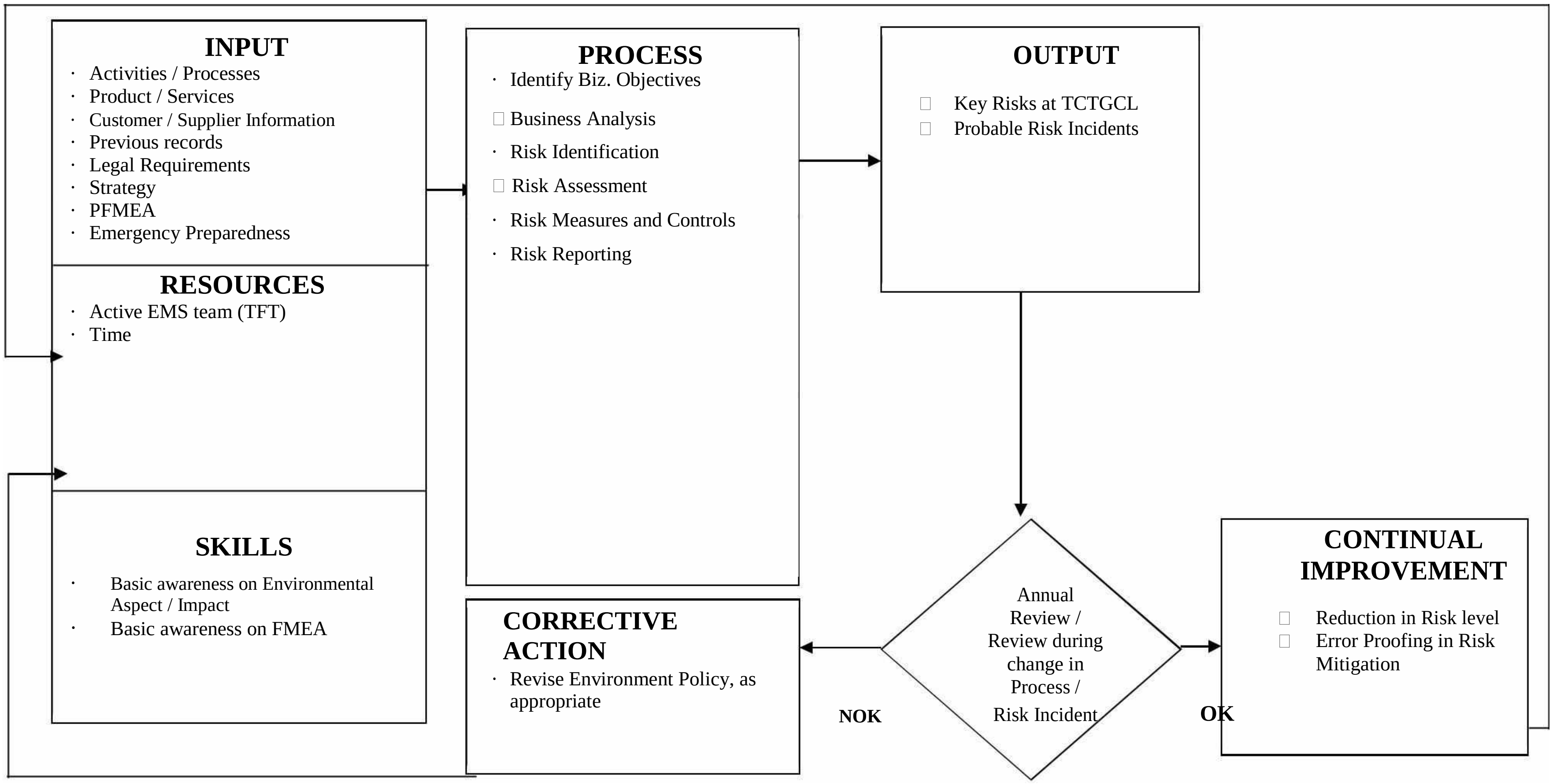
7. PROCESS MONITORING & PERFORMANCE INDICATORS:

S.N	Indicator	Resp.	Frequency	Ref. Doc. (If any)
1	Risk Incidents	Respective HOD	Monthly	MIS

8. RECORDS :

S. N.	Format No.	Record Name	Retention Period	Resp.	Location
1	Annexure-A	RISK ANALYSIS AND OPPORTUNITIES	All time	MR	Server

9. PROCESS APPROACH DIAGRAM



10. PROCESS SWOT ANALYSIS:

Strengths

1. Vertical Integration – Stamp , Plate , Mold and Automation
2. Brand Equity
3. Profitable Operations
4. Strong Customer relationship
5. Global Organization to leverage resources
6. In house stamping tooling and Automation
7. Reel to reel plating process – not very common in India
8. Risk Mitigation
9. Emergency Preparedness
10. Skilled manpower
11. Process Ownership

Weaknesses

1. Local Mold Building
2. Higher Project lead times
3. Customer tool transfer capability
4. Higher Component and Tool Costs
5. Proto typing capabilities
6. Limited presence in / knowledge of MCS markets

Opportunities

1. MCS Opportunities
2. Automotive Localization
3. Macro Economic factors – GDP growth and introduction of GST
4. Insert Molding Opportunities
5. Export Opportunities
6. Legal compliance
7. Zero Risk Incidents
8. Customer Assurance

Threats

1. Too many players in the market including established MCS companies
2. Higher attrition rates of tool makers and designers
3. Customer business practices including annual negotiations, extended payment terms etc.
4. Delayed ramp up of Automotive projects
5. Some RM suppliers and some customers are turning competitors.
6. Non compliance to legal requirements
7. Risk Incident
8. Customer Loss

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