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# PURPOSE

This standard is one of five ESH standards that constitute the Environmental and Occupational Safety & Health Management System (ESH MS) for TI manufacturing sites.

# SCOPE

The provisions of this standard apply to all TI employees, suppliers, vendors, and visitors at TI manufacturing sites worldwide.

# reference documents

# TI SP&P 04-04-01 Environmental, Safety and Health

# TI SP&P 04-07-01 Records Retention

# ISO14001: 2015 International Standard on Environmental Management System

# ISO45001:2018 International Standard on Occupational Health and Safety Management System

# TI ESH Standard 20.10 ESH Roles & Responsibilities

# Definitions

# [TI ESH Standards Glossary of Definitions](https://sps01.itg.ti.com/sites/wwf/esh/standards/default.aspx)

# ISO 14001:2015 (Terms)

# ISO 45001:2018 (Terms)

# RequirementS

# Monitoring, Measurement, Analysis and Evaluation

#### Each site shall monitor, measure, analyze and regularly evaluate its ESH performance. Examples of this include PDO scorecard reviews, WW ESH operations reviews, Site ESH Committee reviews and Management Reviews.

#### Sites shall participate in or provide input into the annual WW ESH goal setting process.

#### Each site shall determine:

#### Specific items to be monitored and measured, including:

#### The extent to which compliance obligations are met;

#### Activities and operations related to identified hazards, risks and opportunities;

#### Progress towards achievement of the site’s ESH objectives; and

#### Effectiveness of operational and other controls.

#### Methods for monitoring, measurement, analysis and evaluation, as applicable to ensure valid results; (performance checks against equipment performance limits or regulatory limits; use of dashboards; scorecards; etc.);

#### The criteria against which the site will evaluate its ESH performance, using appropriate indicators (e.g., established regulatory ranges or limits, TI Standard requirements, performance goals; etc.);

#### When the monitoring and measuring shall be performed (for example real time in line monitoring, daily operations meetings, weekly inspections, quarterly scorecard updates, etc.); and

#### When the results from monitoring and measurement shall be analyzed and evaluated (for example at monthly ESH Committee meetings, quarterly Management Reviews, etc.).

#### The site shall evaluate the ESH performance and determine the effectiveness of the ESH MS.

#### The site shall ensure that instruments used to monitor and measure significant environmental aspects and/or safety and health risks shall be used and maintained properly, and calibrated/verified as required by permit, regulation or other requirement(s).

#### The site shall communicate relevant ESH performance information both internally and externally, as identified in its communication process and as required by its compliance obligations.

#### The site shall retain appropriate documented information as evidence of the monitoring, measurement, analysis and evaluation results and on the maintenance, calibration or verification of measuring equipment.

# Evaluation of compliance

#### Internal Audits - Management System and ESH Compliance

#### WWESH Audits will typically be combined audits, including evaluation of:

#### Compliance to applicable regulatory and other requirements;

#### Conformance to TI ESH standards; TI Policies and Procedures; and other requirements to which the organization subscribes; and

#### Conformance to ISO14001:2015 and ISO45001:2018, when applicable.

#### WWESH Audits will involve the following audit components as needed:

#### Pre-Audit Planning – to ensure appropriate scheduling and advance information is provided to the site and input is timely received from the site;

#### Opening Conference – to ensure an overview of the audit process, the audit plan and schedule is reviewed with participating leadership and other auditees from the site;

#### Auditing – to provide an adequate evaluation and assessment of the site’s ESH processes and potential risks by sampling documented information, performing site tours, and interviewing personnel;

#### Closing Conference – to review results of the audit and an overview of expectations and the required steps to follow after the audit;

#### Post Audit Process – to include further review and refinement of audit reporting, documentation, approvals, management review and follow up.

#### WW ESH shall:

#### Determine the sites, operations, locations, length and cycle time of ESH audits based on level of risk;

#### Define the audit criteria and scope for each audit;

#### Select properly trained auditors to ensure objectivity and impartiality;

#### Conduct audits as planned and ensure proper communications throughout;

#### Ensure the audited party understands any issues, risks, or opportunities identified;

#### Ensure that the results of the audits are reported to relevant levels of management;

#### Provide the site with the audit results, follow-up process, timing and documentation format required after the audit;

#### Provide audit related tools such as protocols, audit tracking tools, databases, etc. as needed;

#### Retain documented evidence of the implementation of the audit program and the audit results;

#### Maintain the ESH standards related to audits and ESH MS Enterprise Headquarters level documentation;

#### Communicate and take actions necessary to sustain ESH Audit Program quality and effectiveness;

#### Coordinate auditor training when needed;

#### Conduct communications and oversight of Registrar audit activities necessary to sustain third-party registration to ISO14001 and ISO45001;

#### Ensure proper documented information of Registrar audits are maintained;

#### Ensure an internal audit of the corporate level Enterprise Headquarters ESH MS is performed annually and retain proper documented information.

#### The site shall:

#### Ensure an internal assessment of the ESH MS is completed and an ESH compliance assessment is performed during the years in which a WW ESH audit is not conducted at the site;

#### Ensure the ESH MS assessment meets ISO14001 and ISO45001 standard requirements;

#### Determine the scope of the ESH compliance assessment and auditors who are properly trained, objective and impartial;

#### Maintain knowledge and understanding of its compliance status with its compliance and other obligations;

#### When an internal assessment or a WWESH Audit occurs, the site will ensure:

#### All pre-audit scheduling and preparations are made in advance;

#### Leadership and other personnel involved are aware of and ready for the audit;

#### Necessary documented information and appropriate personnel are available during the audit;

#### Cooperation so the audit is a thorough and accurate representation of the site’s ESH conformance and compliance status;

#### Results are reported to relevant management, workers, and workers’ representatives where appropriate.

#### After an internal assessment or a WWESH Audit is complete, the site will ensure for any identified non-conformances or non-compliances:

#### Thorough root cause analysis, timely corrections, corrective actions, action owners and timelines are developed;

#### Appropriate and timely closure of actions is made and evidence of such is documented;

#### Verification of the effectiveness of closure is made and documented;

#### Appropriate documented information is maintained per recordkeeping requirements.

#### Sites will ensure that the process followed for audit and assessment non-conformances and non-compliances is consistent with Section 5.4.2, below.

# Management Review

#### Top management shall review the organization’s ESH management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness.

#### Input to management reviews shall include:

#### Status of actions from previous management reviews;

#### Results of internal audits and evaluations of compliance;

#### Results of participation and consultation;

#### ESH performance of the organization;

#### The extent to which objectives have been met;

#### Status of incident investigations, corrective actions and preventive actions;

#### Changes in:

##### Compliance and other obligations

##### External and internal issues relevant to the EMS;

##### The needs and expectations of interested parties;

##### Significant environmental aspects;

##### Occupational safety & health hazards and risks; and

##### Extent to which the ESH policy and objectives have been met;

#### Information on ESH performance including trends in:

#### Nonconformities and corrective actions;

#### Monitoring and measurement results;

#### Fulfilment of compliance obligations; and

#### Audit results

#### Adequacy of resources

#### Relevant communications from interested parties including complaints; and

#### Opportunities for continual improvement.

#### Output of the management review shall include decisions on:

#### The continuing suitability, adequacy and resource needs;

#### Opportunities for continual improvement;

#### Changes needed to the ESH MS:

#### Resources needed;

#### Actions, if needed, when ESH objectives have not been met;

#### Opportunities to improve integration of the ESH MS with other business processes, if needed; and

#### Any implications for the strategic direction of the organization.

#### The site shall retain documented information as evidence of the results of management reviews.

# Improvement

#### General:

#### The site shall determine opportunities for improvement and implement necessary actions to achieve the intended outcomes of its ESH MS.

#### Incident, Nonconformity and Corrective Action

#### The site shall establish, implement and maintain a process(es), including reporting, investigating and taking action to determine and manage incidents and audit nonconformities.

#### Nonconformities identified through other means may be trended and/or reviewed to determine perceived risk and applicability of this procedure, and may or may not be subjected to the process based on perceived risk.

#### When an incident or nonconformity occurs, the site shall:

#### React in a timely manner to the incident or nonconformity and, as applicable:

#### Take action to control and correct it; and

#### Manage the consequences.

#### Evaluate, with the participation of workers and the involvement of other relevant interested parties, the need for corrective action to eliminate the root cause(s) of the incident or nonconformity, in order that it does not recur or occur elsewhere, by:

#### Investigating the incident or nonconformity;

#### Determining the cause(s) of the incident or nonconformity; and

#### Determining if similar incidents have occurred, if nonconformities exit, or if they could potentially occur.

#### Review existing assessments of ESH risks and other risks, as appropriate;

#### Determine and implement any action needed, including corrective action, in accordance with the hierarchy of controls and the management of change;

#### Assess ESH risks that relate to new or changed hazards, prior to taking action;

#### Review effectiveness of any action taken including corrective action;

#### Make changes to the ESH MS, if necessary; and

#### Record and communicate the results of investigations and the corrective and preventive action(s) taken.

#### Corrective actions shall be appropriate to the effects or potential effects of the incidents or nonconformities encountered.

#### The site shall retain documented information as evidence of:

#### The nature of the incident of nonconformity and any subsequent actions taken; and

#### The results of any actions taken including their effectiveness

#### Continual Improvement

#### The site shall continually improve the suitability, adequacy and effectiveness of the ESH MS by:

#### Enhancing ESH MS performance;

#### Promoting a culture that supports an ESH MS;

#### Promoting the participation of workers in implementing actions for the continual improvement of the ESH MS;

#### Communicating the relevant results of continual improvement to workers, and, where they exist, workers’ representatives; and

#### Maintaining and retaining documented information as evidence of continual improvement.

#### 

# STANDARD Approval

This standard has been approved by Zane Broadhead, TI Vice President.

# Revision history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Rev#** | **Date** | **Nature of Revision** | **Author/Editor** | **Approver** |
| A | 8/22/2017 | New Standard | Gilmore/Moore | ELC |
| B | 3/8/2018 | Addition of TI SP&P 04-01-17 as new reference and Appendix A | Gilmore/Moore | ELC |
| C | 4/17/2019 | Periodic review and addition of ISO45001 language Removal of Appendix A | Gilmore/ Moore | ELC |
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