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Corporate standard for Environment, Health and Safety (EHS)

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1 Purpose and Scope:

The purpose of this document is to describe overall requirements for working with environment, health and safety in Elkem

2 Target Group:

The target group is all employees and contractors working on Elkem property.

3 Definitions:

EHS: Used as a general term for activities related to Environment (external environment and impacts of our activities on this, both locally and globally), Health (working environment and health impacts of this), and safety (prevention of harm to people and / or things, as well as reduction of harm when incidents occur).

FOCUS: Elkem's principle management system for environment, health and safety (EHS). FOCUS includes structure for EHS work, overall requirement (corporate standards), and tools for training and follow-up.

EHS Program: Written documentation of specific efforts that are implemented on site to prevent harm from potential risk identified through risk analysis, and ensure compliance with applicable laws, regulations, permits and corporate standards. Includes also overview over available tools, responsibilities and necessary follow-up.

EHS Resources: Professionals who are employed or hired to ensure the quality of the EHS work, and / or employees representatives elected to contribute to EHS work.

4 Responsibilities:

4.1 Unit's top manager (Plant manager, Site manager, etc.)

- Overall responsibility for the unit's EHS work including risk assessment, prevention measures and follow-up.
- Overall responsibility for ensuring compliance with government regulations and internal rules outlined in corporate standards by the organization and contractors working on site.
- Overall responsibility for accurate reporting

4.2 Line managers

- Primary responsibility for EHS work in their own areas including risk assessment, prevention measures and follow-up.
- Primary responsibility for EHS aspects around machinery, equipment and processes in own area.
- Primary responsibility for the training and supervision of employees and others who perform work in their area to ensure that they have the necessary knowledge and skills to do any work they are asked to do without damaging equipment and harming people, and with the minimum of possible impact on the external environment.
- Primary responsibility for accurate reporting in own area.

4.3 EHS Resources

- As part of the help chain, EHS resources main responsibility is limited to professional and correct execution of their work.
- EHS resources also have a control function to ensure that line managers fulfill their EHS responsibilities in a satisfactory manner.

4.4 Each individual employee

- Responsible for own behavior that may affect EHS conditions when working.
- Responsible for own compliance with EHS requirements that may apply to own work as documented in work procedures and standards.
- Participation in EHS improvement activities including reporting and correction of EHS deviations and helping with observation and correction of undesirable behavior (Thanks for telling me).

5 Description:

All Elkem units are required to have their own EHS management system that is suitable for the risks involved in their activities. This means that units at all levels shall have:

- Updated documentation of their activities, processes, equipment and property.
- Updated listings of risk factors associated with these and measures to bring the identified risk down to an acceptable level.
- An overview of applicable EHS regulations (including national laws, regulations and corporate requirements) for all its activities, processes, equipment and property.
- Training activities and plans that ensure the necessary competence and experience to be able to work correctly seen from an EHS point of view.
- Goals and plans for its EHS work.
- Controls and documentation showing compliance with applicable EHS regulations.

5.1 Risk Management

An overall risk analysis covering all parts of the operations shall be and updated at least annually and / or on any major changes.

As part of the risk analysis, documentation showing how mapped risks are managed to an acceptable level, must be made.

In cases where there are no satisfactory and lasting solutions that remove or reduce the risk to an acceptable level, there must be alternative short-term measures and specific scheduled plans for permanent solutions. Detailed risk analysis shall be available for all systems, processes and operations. These are to be updated whenever changes are made to equipment or function, and / or when incidents or new information show that the risk is not sufficiently taken care of.

Risk analysis of working operations can be done both as joint analysis for routine jobs and as a safe job analysis (SJA) for specific one-time jobs.

Risk analysis must always be in writing and, with the exception of SJA, kept on file until the next revision or until equipment / facilities are decommissioned and removed from the workspace.

5.2 Goals and plans

Management by objectives shall be used in EHS work. This involves annually setting targets for EHS indicators and monitoring status and deviations. Key indicators shall include both leading and lagging indicators.

An overall EHS plan based on the unit's risk analysis and improvement needs shall be prepared annually and updated when needed. The plan should include priorities using the "top rolling 5" way of thinking and shall display measures with deadlines and responsible.

Separate EHS plans shall be prepared for any change or transformation process that goes over time. Content and level of detail will depend on the complexity and scope of the change / project.

Internal updating and monitoring of goals and plans must be documented.

5.3 Organizing EHS work

EHS is a line responsibility and line management shall take primary responsibility for good EHS work in the unit (see section 4 Responsibilities). Good access to competent EHS resources that function as a help-chain, and joint committees to ensure good participation and ownership of all employees in EHS work, are necessary to be able to fulfill line management responsibilities in an effective manner. Even though these resources are organized and expected to mainly function as a help-chain, they must also be given sufficient power and authority to be able to exercise a control function. Unit EHS managers should report directly to the top unit manager and be a part of the unit management team.

5.3.1 EHS resources

The number of EHS resources and the level of their competence is dependent on the units size, complexity and risk profile. Most production units will require at least one dedicated EHS resource (such as an EHS Manager). For larger sites with high risk, more staff or contracted roles such as an environmental manager, a safety coordinator and a company doctor or nurse may be appropriate. For smaller sites, these roles could be part of other functions.

In some countries, the availability of, and competence of EHS resources is regulated. Compliance to both local legislation and corporate standards is mandatory.

5.3.2 Professional resources

The following professional resources shall be available in all sites:

- Safety (EHS Manager - Safety Manager - Safety Coordinator - or similar)
- Health (Occupational Health)
- Environmental (EHS Manager - Environmental Leader)
- Fire and Emergency (Fire Chief - Industrial Defense – first aid)

Resources within each of these areas shall have the necessary competence tailored to site size, complexity and risk profile. Competence shall cover, as a minimum:

- Understanding of legislation and corporate requirements
- Risk mapping and risk analysis
- Preventive EHS work
- The FOKUS system and tools
- Deviation management and follow-up

5.3.3 Joint committees with employee representatives

Our EHS work is dependent on broad participation from employees at all levels of the organization and a strong commitment to prevention activities. For this to be done efficiently, joint committees are to be established and employee representatives chosen based on the size, complexity and risk profile of the site.

In some countries, joint committees and elected employee representatives are mandated by law for operations over a certain size. Compliance to both local legislation and corporate standards is mandatory.

5.4 Training and Education

Each employee shall be given the necessary training to be able to perform their duties in a safe manner without harm to people or things, and with the least possible negative impact on the environment. To address this, all units, regardless of size, shall have established training programs which cover all employees and provide competence tailored to their tasks and the risks involved with them. This includes:

- EHS introductory courses that describe the units risk, prevention activities and requirements for safe behavior.
- General training activities covering EHS topics and EHS tools
- Specific training activities for all working operation each employee is required to perform and all tools each employee is required to use.
- Routine competence follow-up refresher training when necessary

All training must be documented in writing.

5.4.1 Mandatory EHS training

All employees shall have the following training:

- An "EHS Introduction" to the site shall be held for each individual during the first week of their employment in Elkem.
- During the first 6 months of their employment each employee is to be given the "Basic FOKUS" training course.
- Specific courses covering EHS tools (such as risk analysis, job observations, reporting and investigating incidents, etc.) shall be provided before employees use the tools.
- Specific courses covering EHS topics (see section 5.7) shall be provided for people who perform operations in these areas during their first year as Elkem employees.

Each individual employees' closest leader is responsible for ensuring that mandatory EHS training is finished on time and that refresher training is done when needed.

5.4.2 Work training

Employees who are appointed to perform working operations and use equipment shall have adequate training to enable them to perform their duties in a correct and safe manner. This includes:

- Training in the correct way to do the job based on identified risk, standard practice and practical exercises.
- Training in connection with local public requirements for certification when using certain equipment or doing certain jobs (for example, using certain types of mobile equipment and cranes, and for work on electrical installations)
- Training in the safe use of all equipment / tools the person is to use.

All training shall be documented in writing and include verification of knowledge and skills.

5.5 Deviation Management

All units shall have systems and procedures for the reporting, investigating, correction and follow-up of deviations. See separate corporate standard for incident management.

5.6 Work practice controls

Based on risk analysis, each unit shall, as far as possible, remove or reduce the identified risks to an acceptable level using technical measures that make processes and equipment safe to use. In cases where technical measures are not sufficient to prevent harm, organizational measures controlling individual behavior and appropriate follow-up routines to ensure that these work as intended, shall be implemented by the unit.

5.6.1 Rules and standards

All sites shall have written standards and rules adapted to their needs including:

- EHS rules describing general conditions and expected behavior within these areas.
- Standard practice or job descriptions describing safe behavior in connection with the execution of work on specific tasks.

5.6.2 Follow-up of rules and standards

Compliance with rules and standards shall be followed up routinely with, among others, the following measures / tools:

- Visible leadership through both planned and unplanned safety inspections.
- Job Observations
- Dialog between manager and employee when required

Written rules defining the consequences of violating rules and standards must be available and well known in the work force. This will normally be part of the general workplace rules.

All employees are also expected to contribute actively in efforts to ensure compliance with rules and standards by observing each other's behavior and talking together about deviations (Thank you for telling me).

5.7 Establishment of specific EHS program

Specific EHS program shall be prepared by all units. The content and scope will depend on mapped activities and risks.

5.7.1 Safety

5.7.1.1 All units

All units shall have safety programs covering the following topics regardless of activity level and risk:

- Housekeeping
- Emergency preparedness and fire prevention
- Access control and asset protection
- Computer security and technology protection
- Fall prevention

5.7.1.2 Production and storage sites

In addition to topics under 5.7.1.1, production and storage sites shall have safety programs covering the following areas:

- Mobile equipment
- Cranes and lifting equipment
- Machines
- Energy isolation
- Confined spaces
- Hot work
- Electrical work

5.7.1.3 Other production sites with special hazards

In addition to topics under 5.7.1.1 and 5.7.1.2, safety programs shall also be developed for any special hazards mapped on site such as:

- Molten materials
- Flammable / explosive dust
- Chemicals
- Hazardous gasses

5.7.2 Health

5.7.2.1 All units

All units shall have health programs covering the following topics regardless of activity level and risk:

- Ergonomics
- Psychosocial issues
- Noise

5.7.2.2 Production and storage sites:

In addition to topics under 5.7.2.1, health programs shall also be developed in the following areas:

- Mapping and control of harmful exposure
- Routine health follow-up
- Chemicals

5.7.3 Environmental

5.7.3.1 All units

All units shall have environmental programs covering the following topics regardless of activity level and risk:

- Energy and resource utilization
- Environmental impact through emissions to air and discharge to water
- Waste reduction and waste management

5.7.3.2 Sites with activities that require public discharge permits

A comprehensive environmental management system that meets requirements of ISO14001

5.8 Auditing and internal control

Compliance with EHS regulations and corporate requirements shall be checked routinely. This involves self-monitoring by documented self-assessment of own systems, procedures and activities by all units, and periodic corporate audits of all units. Production units are audited by corporate (EHS Audit) minimum every other year. Smaller units are audited when needed. Reports from corporate EHS audits are followed up through the divisional and plant internal board meetings.