



Safety, Occupational Health and Environment Management Standards Charoen Pokphand Group



มาตรฐานการจัดการความปลอดภัย
อาชีวอนามัย และสิ่งแวดล้อม
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Safety, Occupational Health and Environment Management Standards Charoen Pokphand Group

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Record of Changes

No.	Date	Changes
1	January 2011	Circulated the Final Draft internally as a common standard of operations within Charoen Pokphand Group.
2	January 2017	Revised contents to achieve more systematic SHE management that promotes efficient linkages between related systems. As an integrated sustainability edition, it can be referenced as a management standards guideline at Group level and used to ensure the management system's compliance with both international principles and the Group's Sustainability Goals.
3	May 2020	Added environment management standards and revised existing standards for more compatibility with universal management principles on corporate governance, compliance and business ethics, sustainability frameworks and relevant systems in order to synergize efforts towards the Group's Sustainability Goals.
4	September 2021	<ol style="list-style-type: none"> 1. Enhanced standards to achieve more conformity and added SHE goals in accordance with the Group's Core Strategy (2030) which consists of three dimensions, namely Heart: Living Right, Health: Living Well and Home: Living Together. 2. Separated guidelines from standards in order to enable their suitable application to the different contexts of each business. 3. Divided standards into two segments, namely management standards and technical standards.



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Introduction

Charoen Pokphand Group (hereafter “the Group”) remains steadfast in the commitment to care for our valuable human resources with love and concern. We are also mindful of our responsibilities towards the society and stakeholders. As a world-class organization, the Group strives to operate our business for sustainable growth. Accordingly, we take into consideration the benefits of the country, the people of the country where we invest and the organization as a whole in accordance with the Three-Benefit Principle which calls for awareness in our business’s responsibility towards the society, stakeholders, suppliers and neighboring communities throughout the supply chain.

Therefore, the Group has established sustainability-related goals and directions as a framework to guide our internal departments in their effort to shape the Group into a world-class excellence organization. Our three core strategies include Heart: Living Right, Health: Living Well, and Home: Living Together. In terms of safety, occupational health and environment (hereafter “SHE”), the Group has defined relevant targets and key indicators for both staff and suppliers in accordance with the Group’s Sustainability Goals relating to Heart: Living Right (Human Rights and Labor Practice) as well as ensured the implementation of environmental management in line with Home: Living Together.

The Group regards SHE management as the direct responsibility of executives at all levels which should be carried out in tandem with their business management roles. SHE management is essential to drive business continuity and ensure the safety and good hygiene of our human resource. It is also a display of our responsibility towards our suppliers and the society. Hence, the contents of this Safety, Occupational Health and Environment Management Standards have been revised to support our executives in enhancing the effectiveness of the management standards guideline while integrating their alignment towards the same direction. This set of standards also serves as a guideline to achieve a balance between the economic, social and environmental performance of all business groups under Charoen Pokphand Group while placing priority on employees, consumers, business associates, the society and stakeholders across the Group’s supply chain.



Table Factors Contributing to the Development of a New Management System

Factors	Benefits of Charoen Pokphand Group's SHE Management
Human rights and labor practice	A systematic SHE management promotes operational safety for employees and relevant parties in accordance with international practices (UNGC).
Regulatory and compliance	Conducting business in compliance with relevant laws and regulations leads to approval (License to Operate) and the ability to respond to the need to coexist with the society and the community where the business is located.
Ethics and compliance	SHE measures for employees and relevant parties must comply with standards, policies, regulations, and ethical practices. This will lead the Group to become a world-class sustainability company that cares for the society and the environment.
Stakeholder expectations	Respond to constantly changing and increasing expectations of stakeholders, such as customers, employees, business associates, government agencies, private organizations, communities, and the public. For example, <ul style="list-style-type: none"> • Protecting the environment, caring for operators, and ensuring safe conditions for operators or related parties. • Conducting business with consideration for the society, understanding and managing the needs and expectations of communities and the public with suitability.
Production process and business efficiency	Enhance productivity, create competitive costs, enable efficient utilization of existing natural resources, reduce process waste generation, and ensure good SHE conditions.
Emerging diseases, behavioral and lifestyle changes	Severe emerging epidemics, such as the Coronavirus Disease (Covid-19), can affect the SHE standards system. Therefore, it is imperative that the organization implement measures that cover issues of radical changes impacting working behaviors and influencing a new way of living. These unprecedented measures must be inclusive and capable of managing any potential future crises.
Continuous business growth and sustainability	Promote corporate governance and proactive business operations with risk management that take into consideration relevant factors, create added value for stakeholders and carry social responsibility for continuous growth and sustainability.
Customer satisfaction, image, and confidence	Business operations that can respond to customer needs in all aspects and efficient SHE management contribute to the creation of confidence, positive image and satisfaction among customers in the long run.



Chapter 2 Safety and Occupational Health Policy and Guidelines, Charoen Pokphand Group

Environment Policy and Guidelines, Charoen Pokphand Group

Charoen Pokphand Group strives to create safety and superior quality of life for our human resource and other concerned parties while preventing and minimizing any potential environmental impacts that may arise from our operations across the supply chain. Such endeavor is based on efficient and effective SHE management which is a key factor in achieving the Group's sustainability.

This Group-level policy is periodically reviewed for compatibility with corporate contexts and risks. In order to ensure compliance, subsidiaries are obligated to shape their goals and work plans based on this corporate policy.



Scan for
Safety, Occupational Health and Workplace Policy and Guidelines
Charoen Pokphand Group



Scan for
Environment Policy and Guidelines
Charoen Pokphand Group



Chapter 3 Safety, Occupational Health and Environment Management Organizational Roles and Responsibilities, Charoen Pokphand Group

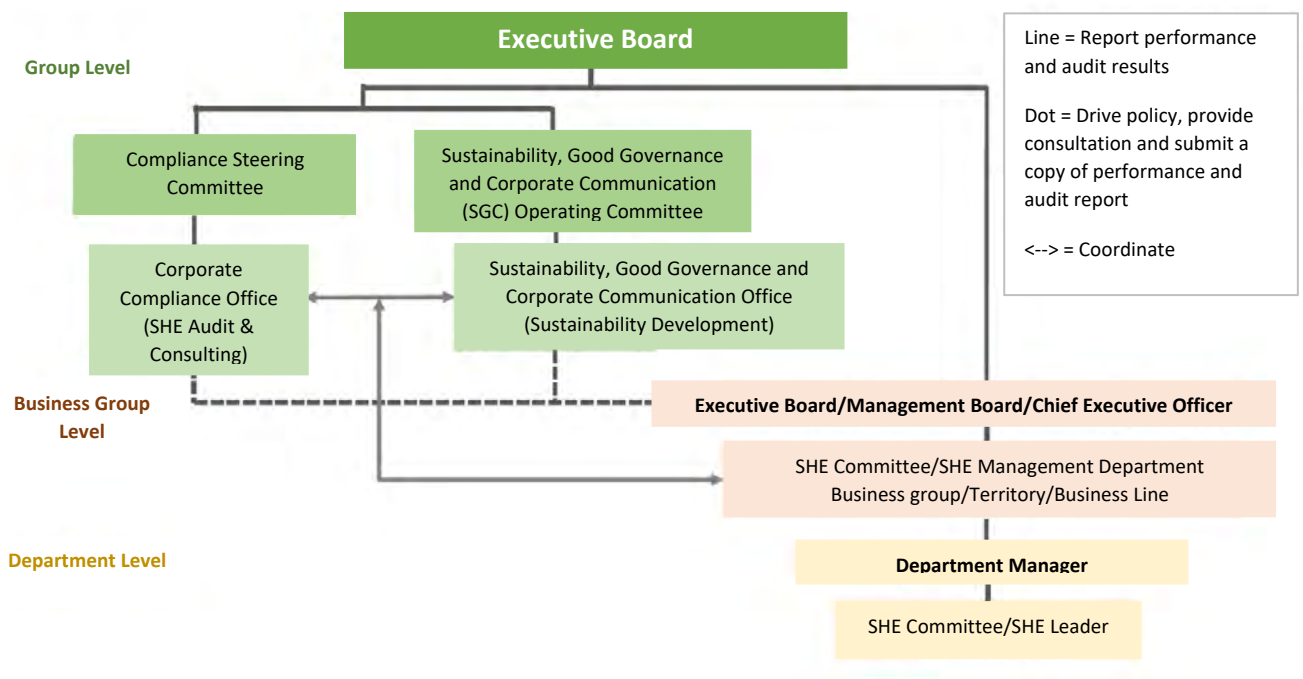
The SHE management organizational roles and responsibilities have been established to enable implementation, support, cooperation and coordination between the Group's departments in their effort to comply with the SHE Management Standards and enhance the effectiveness of SHE operations. The SHE management structure is presented, hereafter, in brief; however, it does not limit the roles and responsibilities only to such scope. Adjustments can be made depending on the suitability and the structure of each business group. The SHE management roles and responsibilities of executives and departments are as follows:



Safety, Occupational Health and Environment Management Structure

Charoen Pokphand Group

SHE Governance Structure





Safety, Occupational Health and Environment Roles and Responsibilities

Group Level

1. Executive Board

- 1.1 Define SHE policies, targets, key indicators at Group level and ensure their effective communication and implementation.
- 1.2 Follow up on the Group's overall SHE performance on a regular basis.
- 1.3 Encourage SHE corporate culture and act as the role model in safety, occupational health and environment.

2. Compliance Steering Committee

- 2.1 Consider, screen and review SHE policies, standards and guidelines.
- 2.2 Consider SHE strategies, work plans and guidelines, and ensure their effective implementation.
- 2.3 Report on SHE performance, audit results and corrective actions.
- 2.4 Consider the approval of SHE reports and inform the Executive Board for acknowledgement.

3. Sustainability Development, Sustainability, Good Governance and Corporate Communication Office (SGC Office), Charoen Pokphand Group

- 3.1 Prepare and review SHE policies, standards, and guidelines at Group level.
- 3.2 Determine Group-level SHE targets and plans.
- 3.3 Compile and analyze statistical data on SHE incidents at Group level and take part in investigating the cause of said incidents.
- 3.4 Monitor SHE performance reports of subsidiaries.
- 3.5 Communicate, educate and advise about the implementation of SHE policies, standards, guidelines to the Group's executives and departments.

4. Corporate Compliance Office (CCO Office), Charoen Pokphand Group

- 4.1 Assess, regulate, audit and make recommendations to internal departments to ensure compliance with safety and environment laws, rules, regulations, policies and standards.
- 4.2 Collaborate with Sustainability Development, Sustainability, Good Governance and Corporate Communication Office (SGC Office), Charoen Pokphand Group in the preparation and review of Group-level SHE policies and management standards.
- 4.3 Provide recommendations for corrective actions based on SHE Audit and follow up on the completion of such actions in accordance with established plans and priorities; analyze risk



level trends and organize trainings to improve and correct SHE problems in both management and technical standards for prevention, compliance and risk reduction.

Business Group Level

5. Executive Board / Management Board / Chief Executive Officer at Business Group Level

- 5.1 Establish SHE policies, standards, targets and key indicators at business group level.
- 5.2 Appoint SHE management committee/department at business group/territorial/business line level according to the contexts and complexities of each business group.
- 5.3 Ensure that risk management and SHE operations at business group level are in line with SHE policies, standards, goals and key indicators at both Group and business group levels.
- 5.4 Ensure the reporting of SHE performance to Group level.
- 5.5 Encourage SHE corporate culture and act as the role model in safety, occupational health and environment.

6. SHE Management Committee/Department at Business Group/Territorial/Business Line Level

- 6.1 Screen SHE policies and standards at Group level; screen and review SHE policies and standards at business group level.
- 6.2 Drive business group operations in accordance with SHE policies and standards at Group and business group levels; upgrade the business group's SHE system to align with the "Safety, Occupational Health and Environment Management Standards".
- 6.3 Follow up, compile and analyze SHE performance effectiveness of departments under the business group and/or of relevant sub-committees, and report to the Executive Board/Management Board/Chief Executive Officer of the business group.
- 6.4 Provide additional data support on SHE performance upon request from Group level.

7. Chief Executive Officer (CEO) of Each Business Group

- 7.1 Take the lead in defining policies, targets, key indicators and approve SHE management standards at business group level; ensure that departments under their authority implement risk management in line with the Group's SHE policies, targets, standards and key indicators.
- 7.2 Appoint SHE Management Committee of each business group, business line/territory and/or SHE leader at business group level (SHE Manager or Chief Executive Officer of the business group).
- 7.3 Monitor and oversee SHE performance at business group level from SHE Management Committee of the business group, business line/territory and/or department.
- 7.4 Act as the role model in safety, occupational health and environment.



8. Business Line/Territorial Manager

- 8.1 Oversee that business lines under their authority operate in accordance with SHE management policies, targets and standards at business group level.
- 8.2 Appoint SHE committee and SHE Leader at business line/territorial level in accordance with the contexts and complexities of each business line/territory; monitor, audit and assess SHE performance at business line/territorial level and report to SHE Management Committee at business group level at least every quarter.
- 8.3 Act as the role model in safety, occupational health and environment.

9. SHE Manager at Business Group/Business Line/Territorial Level

- 9.1 Develop and maintain SHE management system at business group, business line/territorial level in accordance with the “Safety, Occupational Health and Environment Management Standards.”
- 9.2 Propose policies, plans and key indicators for approval of SHE Committee; review and provide recommendations relating to SHE policies, review Group-level policies and define policies at business group level.
- 9.3 Monitor, compile and analyze SHE performance effectiveness of departments under the business group and/or of relevant sub-committees.
- 9.4 Provide recommendations relating to SHE directions, measures, and technical knowledge.

Department Level

10. Department Manager

- 10.1 Appoint SHE Committee/Leader at department level in compliance with relevant laws and in accordance with the contexts and complexities of the department.
- 10.2 Promote, support and ensure effective SHE operations by the department.
- 10.3 Create employee and contractor engagement to improve SHE performance of the department through communication, consultations and feedbacks.
- 10.4 Encourage SHE corporate culture and act as the role model in safety, occupational health and environment.

11. SHE Committee/Leader

- 11.1 Prepare SHE Procedures and Work Instructions at department level in accordance with relevant laws, standards, regulations of stakeholders and in line with Group-level SHE Management Standards, Technical Standards, Life Saving Rules; ensure strict and constant compliance with relevant instructions and regulations.
- 11.2 Ensure compliance with SHE policies, standards, targets and key indicators at Group and business group levels.



- 11.3 Monitor and analyze SHE performance at department level and report to department manager.
- 11.4 Provide recommendations and knowledge relating to SHE measures to department manager.
- 11.5 Provide additional data support on SHE performance upon request from Group level.

12. Supervisors

- 12.1 Monitor, regulate and ensure that employees and contractors comply strictly with SHE laws, measures, standards and regulations.
- 12.2 Analyze and control SHE risks in order to prevent work-related accidents among employees and contractors.
- 12.3 Report accidents and control loss in operating sites; take part in the reporting and investigation process to prevent reoccurrence.
- 12.4 Ensure safe working conditions in accordance with relevant standards, regulations and rules.
- 12.5 Ensure availability of safe, functional and suitable tools and equipment for employees.

13. Staff

- 13.1 Take responsibility for their own safety and the safety of others.
- 13.2 Comply with SHE policies, laws, regulations and universal standards.
- 13.3 Report unsafe incidents, actions or circumstances; cooperate with executives in SHE operations.

The aforementioned SHE structure, roles and responsibilities may be reviewed and/or revised, as deemed necessary, by the management of each line of work in order to suit the nature of each business group, business line/territory or department and in accordance with changing circumstances. These changes must, however, be consistent with the Group's directions, policies and strategies as well as the laws of each country.



Chapter 4 Safety, Occupational Health and Environment Management Standards
Charoen Pokphand Group

4.1 Background

This revised edition of the SHE Management Standards Charoen Pokphand Group was co-developed by the Group’s Corporate Compliance Office (CCO) and the Sustainability Development (SD) Department in collaboration with other relevant departments, consultants and experts based on international standards and best practices.

Departments within the Group are encouraged to adopt the SHE Management Standards, which were developed under an international management framework, to enable the continuous and sustainable improvement and development of their operational efficiency. The standards can be classified into two categories, namely Management Standards and Technical Standards, as shown in the table below.

The Technical Standards, which have been separated from this edition of SHE Management Standards, are continually enhanced for compatibility with the contexts and risks of the Group and its affiliated companies.

Category	SHE Management Standards
Management Standards	<ol style="list-style-type: none"> 1. Leadership and Management Commitment 2. Organizational Roles and Responsibilities 3. Risk Management 4. Management of Change 5. SHE Compliance Management 6. Planning, Objectives and Targets 7. Competency, Awareness and Culture 8. Communication & Counselling 9. Performance Evaluation 10. Internal Audit 11. Emergency and Crisis Management 12. Incident Reporting & Investigation 13. Design & Due Diligence Audit of Safety and Environment 14. Supplier and Contractor, SHE Management 15. Operational Control, Planned Inspection and Maintenance
Technical Standards	<ol style="list-style-type: none"> 16. Occupational Health & Well-being 17. Fleet Safety 18. Hazardous Works 19. Water Management 20. Wastewater Management 21. Waste Management 22. Hazardous Substance Management 23. Energy Efficiency 24. Climate Change



Note: The number and list of Technical Standards are subject to further changes depending on necessity and suitability to the situation.



Figure Charoen Pokphand Group's SHE Management and Technical Standards



4.2 Scope of Implementation

All 15 SHE Management Standards are applicable to each business line and territory. In the absence of a business line, a designated department or individual can be appointed by the business group executive/territorial manager to implement this policy and Standards.

The SHE Management Standards can also be applied to contractors, suppliers and other companies along the organization's value chain in order to achieve a sustainable management system that meets international standards.

The SHE Management Standards are an operational framework containing a set of minimum practices that must be complied with and is based on comparable international standards. Due to the different environmental factors and risks involved, each business group or territory can opt for the approach that best suit the nature of their business in practice, but without contradicting the SHE Management Standards. Such approach must be universally recognized and measurable in order to render effectiveness for the organization as a whole. The implementation of the SHE Management Standards is based on the following principles:

- 4.2.1 Business groups, business lines and territories can set, as part of corporate governance, operational and implementation policies that are consistent with the Group's policies and targets to show determination and responsibility towards stakeholders.
- 4.2.2 Used as a guideline for self-assessment and enhancement of management for higher SHE performance effectiveness, and report on the results to enable continuous reviews and improvements of operations.
- 4.2.3 Applied as management standards by business groups or territories, as specified in this manual, and adapted for compatibility with each business model and operation to achieve sustainability and effectiveness.
- 4.2.4 Used as reference criteria for conformity assessment, verification of SHE effectiveness for relevant internal and external departments.
- 4.2.5 Serve as a system to ensure stakeholders that business groups, business lines, territories and departments under the Group have auditable and referable standard operating mechanisms leading to effectiveness.



4.3 Term and Definition

- 4.3.1 Risk management refers to the systematic process of defining policies, structures and processes to manage risks; enabling their application by committees, executives and personnel in strategy formulation across the organization; monitoring and evaluating their effectiveness against established targets.
- 4.3.2 Risk assessment refers to the process of identifying risks and analyzing their cause in order to prioritize the risks that may impact the accomplishment of corporate targets based on likelihood and impact/consequence assessments.
- 4.3.3 Continual improvement refers to the process of analyzing, planning and reviewing to enable more positive and up-to-date changes.
- 4.3.4 Complaint refers to the expression of dissatisfaction towards any operations that affect the mental condition, environment and/or society.
- 4.3.5 Risk refers to any event or action that may occur under uncertain circumstances and induce monetary and non-monetary damages, such as accidents, image, reputation, or failure/inability to achieve targets in accordance with the corporate mission and vision.
- 4.3.6 Hazard risk refers to risk conditions that may produce hazard and the consequences caused by the severity of such hazard, including SHE, current risks and emerging risks.
- 4.3.7 Safety, occupational health and environment (SHE) refers to actions or working conditions that are free from any factors that will cause work-related harm, illness or nuisance or factors that will impact external parties.
- 4.3.8 Awareness refers to the consciousness or actions of an individual that is displayed automatically, habitually, and without forethought.
- 4.3.9 Target refers to a pre-specified level of accomplishment in order to compare implementation outcomes with objectives.
- 4.3.10 Business group, business line/territorial executive refers to an individual holding the top position, or Chief Executive Officer (CEO), of a business group or territory.
- 4.3.11 Contractor refers to an individual, company or legal entity that operates or provides services under the terms of a service contract, including subcontractor or any individual who works on behalf of a contractor.
- 4.3.12 Management system refers to policies, plans, procedures, practices, operations and controls consisting of personnel and resources that are interrelated within the organization.
- 4.3.13 Objective refers to a measurable purpose to be achieved that is defined in accordance with corporate policies.
- 4.3.14 Crisis refers to an event that produces severe impact or is likely to affect the ability to conduct business, corporate image and reputation, which demands to be resolved by top executives.
- 4.3.15 Emergency case refers to an unusual event that, when occurred, impacts employees, suppliers, contractors and neighboring communities, and can cause damage to properties, people and the environment as a result of SHE issues.



- 4.3.16 Hazard refers to the source, condition or action that may cause injury or illness or both to people.
- 4.3.17 Incident refers to an adverse event that, when occurred, may result in an accident or a near-miss.
- 4.3.18 Major incident refers to an event that, when occurred, results in one of the following severe consequences:
- (1) Accidents causing serious injury, dismemberment, death.
 - (2) Communicable diseases/global epidemics.
 - (3) Accidents causing significant property damage or business disruption, such as fire, explosion, etc.
 - (4) Severe and widespread environmental impact on more than two relevant parties.
 - (5) Leakage of more than 20,000 liters of hazardous chemicals which produce acute or long-term impact on the surrounding society or the environment with the need for urgent improvement, correction and restoration.
 - (6) Air pollution or wastewater discharge exceeding the conditions specified in the business license or environmental work permit.
 - (7) Suspension or seizure of business license relating to SHE issues.
 - (8) Penalized by government officials due to SHE issues.
 - (9) Significant lawsuits, criminal/civil penalties relating to SHE issues.
 - (10) Impacts on corporate image, such as public SHE protests or negative national/international media attention.



Standard 1 Leadership and Management Commitment

Purpose

To enable executives to recognize and understand their role as a leader who must act as a role model, carry responsibilities and demonstrate a commitment to incorporate SHE governance and management as part of business administration, decision-making, and monitoring. Executives at all levels throughout the organization are leaders in promoting a safety and occupational health culture in their respective workplace and encouraging the participation of their staff.

Scope

Standard 1 covers the responsibility of executives of all departments, lines of work, business groups/territories under the Group in demonstrating a commitment to communicate SHE operations in accordance with the Group's SHE Policy and Management Standards to their personnel, such as employees, workers, contractors, sub-contractors or representatives, etc.

Requirements

- 1) Executives at business group, business line/territorial levels shall ensure that operations under their respective authority are carried out in line with the SHE Policy and Management Standards at both business group/territorial and Group levels. They shall also ensure that a system is established and maintained, and that the system's operational effectiveness, risks, strategies, purposes and targets relating to SHE are reviewed at least every quarter.
- 2) SHE policies can be formulated at business line/territorial and department levels in accordance with the specific characteristics of the business in order to ensure compatibility with risk issues, laws and nature of business. Nevertheless, they must be consistent with policies at business group/territorial and Group levels.

SHE Policy must feature the following characteristics:

- Include SHE aspects.
- Consider SHE risks.
- Form a part of and be consistent with business operations which take into account its appropriate size along with its impacts on safety, occupational health and environment.



- Be committed to comply with requirements of the law, code of conduct, business ethics and other relevant requirements.
 - Continuously enhance and prevent SHE impacts and extend the scope to incorporate Healthy Workplace.
 - Serve as a framework for defining and reviewing SHE objectives and targets.
 - Communicate to employees at all levels and contractors to create understanding and enable policy implementation, participation in operations and sharing with external organizations, stakeholders and the public.
 - Allocate resources in a sufficient and appropriate manner.
 - Conduct reviews at specified intervals to ensure that the established policy is suitable for the business and changing situation, or is in accordance with the Group's directions, or as needed.
- 3) Executives at business line/territorial level shall define, as part of business operations, objectives and targets, indicators that correspond with the business group and the Group, SHE plans and budgets at business line and department levels. *(See Standard 6 Planning, Objectives and Targets)*
 - 4) Executives at business line/territorial level shall establish a safety culture for executives and personnel at all levels. *(See Standard 7 Competency, Awareness and Culture)*
 - 5) Department managers shall demonstrate a commitment to SHE operations and provide opportunities to encourage personnel within the organization to participate in SHE efforts. *(See Standard 8 Communication & Counselling)*, such as tracking performance, troubleshooting obstacles, proposing initiatives, encouraging teamwork at all levels and surveying operating sites, to set a good example for employees at all levels.
 - 6) Department managers shall take action to efficiently safeguard the confidentiality of the individual who offered suggestions and lodged complaints to the department and protect such individual from any form of retaliation or bullying.
 - 7) Department managers shall put in place SHE promotion processes and provide counselling, such as rewarding employees for proposals of initiatives, accurate performance and accomplishment of established targets.
 - 8) Department managers shall conduct an assessment of SHE Management Standards implementation as well as an assessment of compliance with SHE Management Standards, and report to the management on a monthly basis.
 - 9) Department managers shall support sufficient resources and have the ability to accomplish established objectives and targets, maintain and make constant improvements to SHE Management Standards.
 - 10) Supervise and monitor to ensure conformity among all affiliated departments as well as the implementation of measures and strict compliance with regulations and standards.
 - 11) In case of an accident, a process must be established to report, monitor, investigate the root cause, define measures and follow up on results of corrective actions in order to prevent reoccurrence. Similarly, in the event of a serious incident as defined in this SHE Management



Standards, the department shall report to the Group as specified in the Group's Major Incident Report System.



Standard 2 Organizational Roles and Responsibilities

Purpose

- To define, communicate and operate in accordance with SHE organizational roles and responsibilities for all employees of the Group.
- To ensure that SHE management is established, implemented and maintained in accordance with the SHE Management Standards.

Scope

Standard 2 covers the structure, roles and responsibilities of executives, employees and individuals concerned with SHE management at business line/territorial and department levels.

Requirements

Business line and department managers shall carry the following roles, duties and responsibilities:

- 1) Oversee that the department under their respective authority establish, implement and maintain SHE management that complies with the requirements of the prescribed Management Standards that are recognized internationally.
- 2) Establish structure, roles and responsibilities of all employees for efficient SHE operations.
- 3) Communicate roles and responsibilities to relevant employees and contractors at each level to enable efficient SHE management. *(See Standard 7 Competency, Awareness and Culture)*
- 4) Report on the effectiveness of SHE management to executives in the respective line of command for review as well as offer recommendations for improvement.
- 5) Ensure that SHE organizational roles and responsibilities are regularly reviewed at least every three years at business line/territorial level and on an annual basis at department level, or whenever a major change occurs, such as legal requirements, management structure, business model, engineering changes and key personnel, etc.
- 6) Determine key organizational roles and responsibilities of executives in accordance with the operating guidelines as defined in Chapter 3 (page XX) Safety, Occupational Health and Environment Management Organizational Roles and Responsibilities, Charoen Pokphand Group.



Subject	Business Group Executive	Business Line Manager	Department Manager	SHE Department Business Group/Line	CCO	SD-SGC
1) Leadership and Management Commitment • Supervise, implement and allocate resources	A	A	R	R	C&I	C&I
2) Organizational Roles and Responsibilities • Establish structure, roles and responsibilities of employees at all levels		A	R	R	C&I	C&I
3) Risk Management • Assess and audit compatibility with comparable operating guidelines		A	R	R	A	C&I
4) Management of Change		A	R	R	C	C&I
5) SHE Compliance Management		A	R	R	C&I	C&I
6) Planning, Objectives and Targets • Formulate plans, objectives and targets, guidelines		A	R	R	I	C&I
7) Competency, Awareness and Culture		A	R	R	C&I	C&I
8) Communication & Counselling • Communicate and create understanding about roles and responsibilities to employees and contractors	A	A	R	R	I	C
9) Performance Evaluation		A	R	R	I	I
10) Internal Audit		A	R	R	C&I	C&I
11) Emergency and Crisis Management • Management of emergency situations and crisis	A	A	R	R	C&I	C&I



12) Incident Reporting & Investigation	A	A	R	R	C&I	C&I
13) Design & Due Diligence Audit of Safety and Environment	A	A	R	R	C	C
14) Supplier and Contractor, SHE Management		A	R	R	C&I	C&I
15) Operational Control, Planned Inspection and Maintenance <ul style="list-style-type: none"> Report SHE management effectiveness to executives 		A	R	R	I	I

Note R = Responsible

A = Accountable

C = Consulted

I = Informed

CCO = Corporate Compliance Office

SD-SGC = Sustainability Development - Sustainability, Good Governance and Corporate Communications Office, C.P. Group



Standard 3 Risk Management

Purpose

- To incorporate SHE risk management as part of business planning.
- To identify, assess, prioritize and manage SHE risks relating to the activities, products, services and sites of each establishment.
- To identify, assess or review SHE risks prior to new activities or changes to current activities, products and services, including technology, operating process and organizational structure.

Scope

Standard 3 covers potential SHE risks as well as other aspects of risks, such as reputation, recognition, compliance with applicable regulations in new projects, process improvements, mergers, expansions, divestment, project demolition and completion. This includes planned, unplanned, temporary and permanent activities which are directly related to projects and support systems. It also covers other factors, such as personnel, raw materials, components, equipment, machinery, laws, regulations, relevant standards, etc.

Requirements

- 1) Business group executives, business line/territorial and department managers shall ensure that the following actions take place:
 - Identify hazard, analyze, and assess SHE risks in all activities, including routine, new and non-routine tasks, past events, emergency situations. This also includes all relevant operating sites that have or may be exposed to SHE risks.
 - Identify SHE impacts in all activities, products and services originating from the department's operations or from those working for the organization's purposes.
 - In the identification process, data acquired from stakeholder expectations must also be taken into account.
 - Identify additional SHE impacts, if any, in the social dimension, such as victimization, bullying, abuse, etc.
 - Significant working environmental aspects/hazards must take into consideration risks and opportunities by adopting negative risk issues in defining objectives, targets and plans in accordance with the organization's management system based on the hierarchy of controls (*See Standard 12 Incident Reporting & Investigation*) in order to eliminate hazards and reduce risks. Additionally, they must ensure the following:



1. The department shall ensure the adequacy and suitability of the process to assess risks as well as the knowledge and capability of operators.
2. The results of the risk assessment process are adopted for evaluation and continuous improvement in designing procurement and SHE management systems.
 - The process of reporting hazards or risks relating to hazardous jobs and situations for operators shall ensure protection of the informant and their personal data.
- 2) Ensure the establishment of a “risk inventory” and review the processes of hazard identification and risk assessment at least once a year or when changes or accidents/incidents occur. *(See Standard 12 Incident Reporting & Investigation)*
- 3) In the event of business closure, divestment, cancellation of building and establishment use, business line/territorial managers shall take actions in accordance with the SHE Management Standards in order to assess risks, define measures and management plans, specify liabilities and responsible parties, monitor, deliver tasks and record such performance in a systematic manner.



Standard 4 Management of Change

Purpose

- To enable the consideration, identification, assessment and management of SHE risks in changes occurring to activities, products, services, technologies, production processes, organizational structure, including information related to business departments.
- To establish processes and procedures to systematically manage changes and SHE risks as a result of such changes in order to ensure planning, define course of actions or implement efficient prevention and correction efforts.

Scope

Standard 4 covers SHE and other aspects of risks that occur as a result of changes in the following aspects:

- Products and services, emerging technologies and processes, operating sites and surrounding areas, systems, working conditions, equipment and use of labor and personnel.
- Laws and other relevant regulations.
- Information, such as knowledge or information relating to hazard and SHE risks.
- Development of technology and its application.

Requirements

- 1) Business line/territorial or department managers shall ensure the establishment of processes and procedures to manage changes that occur to products, goods, services, raw materials, chemicals, hazardous substances, production processes, technologies, tools and equipment, machinery, procedures in production, operations, facilities and support systems (*See Scope*), including changes of personnel in activities that may impact SHE, with the exception of equipment, machinery, and spare parts replacement using the same type of equipment, in order to ensure that such changes contribute to:
 - Prevention of SHE impacts.
 - Compliance with SHE laws, regulations and management standards.
- 2) Business line/territorial or department managers shall ensure that changes are reviewed and approved by appointing appropriate working groups (such as Machinery Installation Working Group, Design Working Group, Procurement Committee, etc.) which must comprise representatives from relevant departments and competent experts in specific risk management in order to ensure that SHE risks caused by changes are controlled or properly managed to an acceptable risk appetite.



- 3) Department managers shall ensure that changes, necessary risk control plans and trainings are communicated to relevant parties and all sectors.
- 4) Department managers shall monitor and record the progress, completion and performance of plans and measures to control SHE risks relating to such changes.
- 5) Department managers shall ensure that relevant documents, such as as-built lay-out drawing, design of relevant utilities system (e.g., electrical system, fire prevention and suppression system), operating procedures/methods and documents in the management system, are up-to-date and conform with changes. *(See Standard 13 Design & Due Diligence Audit of Safety and Environment)*
- 6) Department managers shall ensure that the change management process—from designing, installation through to inspection and trial process—is adequate and efficient in order to prevent any potential risks and hazards that may occur at each step.



Standard 5 SHE Compliance Management

Purpose

- To identify, monitor and create understanding about legal requirements and other regulations, including standards relating to SHE.
- To ensure that the organization has systems and operations that guarantee compliance with SHE laws, regulations, standards and requirements.

Scope

Standard 5 covers legal requirements, agreements, commitments, contracts, standards and other terms relating to SHE aspect of projects, activities and operations of all business groups or territories, such as customer SHE requirements, central and local government requirements, and/or standards established by industry groups or international organizations that must be observed. In the absence of rules or laws, the Group's standards or superior international requirements shall be adhered to.

Requirements

- 1) Business line/territorial managers shall ensure the identification of SHE statutes, regulations, standards or other relevant regulations, which include requests for approval and permits relating to the organization's projects and activities in the form of documents, legal registers and related requirements.
- 2) Department managers shall ensure that relevant documents, legal registers, requirements and standards are up-to-date and complete.
- 3) Department managers shall communicate to create understanding and acknowledgement of laws, regulations and standards that involve employees and relevant parties in operations through the establishment of rules as well as design, prepare, procure or improve the workplace in accordance with the prescribed law and rules.
- 4) Department managers shall assess compliance with the requirements of relevant legal registers, standards, and requirements at least once a year or when changes occur to laws and regulations or when a new law is enforced and record the results of the compliance assessment as evidence.
- 5) Department managers shall prepare and report the results of the compliance assessment and corrective action plans for non-compliance with legal requirements, standards and other requirements to business group executives and business line/territorial managers at least once a year.
- 6) Department managers shall ensure the establishment of a system to monitor new SHE-related laws, standards, and requirements that may come into effect and impact the department in a continuous and up-to-date manner.



Standard 6 Planning, Objectives and Targets

Purpose

To incorporate SHE issues as part of business planning, ensuring that objectives, targets, performance indicators and work plans are established and that performance follow-ups are carried out for continuous efficiency and sustainable business operations.

Scope

Standard 6 covers the formulation of SHE objectives, targets, performance indicators and work plans at business line/territorial and department levels.

Requirements

- 1) Business line/territorial managers shall define SHE objectives, targets and performance indicators with consideration for their consistency with the objectives and targets at Group and business group levels as well as other relevant policies, risk assessment results, laws, standards and requirements.
- 2) Department managers shall define and implement SHE objectives, targets, performance indicators and work plans in accordance with the indicated business line/territorial guidelines. Periodic reviews of such objectives, targets, performance indicators and work plans shall be carried out at scheduled intervals or at least once a year. In the event of changes in activities or new activities, work plans shall be modified accordingly.
- 3) Business line/territorial managers shall review objectives, targets and performance indicators from past SHE performance at least once a year. In the event of new activities or changes in activities, such objectives, targets and performance indicators shall be reviewed accordingly.
- 4) Department managers shall ensure that SHE objectives, targets, performance indicators and work plans are communicated to and clearly understood by all employees and relevant parties. They shall also follow up and report on operational effectiveness to business line/territorial managers every quarter and to business group executives every six months.
- 5) Business line/territorial and department managers shall ensure that SHE work plans have specified procedures, resources, persons responsible, completion timeline, evaluation methods, and surveillance indicators in order to accomplish objectives.



Standard 7 Competency, Awareness and Culture

Purpose

- To ensure that executives, employees and contractors related to all business operations have competency and awareness in SHE.
- To establish a training system for executives, employees and contractors concerned with SHE.
- To enhance the competency of executives, employees and contractors in carrying out activities in accordance with SHE Management Standards.

Scope

Standard 7 covers systems that address the identification and assessment of necessity and the formulation of training plans that include employee/colleague wellness (Induction & OJT; on-the-job training), enhancement of knowledge and skills, and creation of awareness regarding SHE for executives, employees and contractors in order to achieve operational effectiveness.

Requirements

- 1) Business line/territorial managers shall ensure that employee and contractor qualifications, knowledge and competency in SHE are defined and identified in accordance with applicable laws and regulatory requirements. They shall also ensure that such criteria are reviewed at least once a year or when changes occur to operations or the organizational structure in order to select and develop necessary personnel.
- 2) Business line/territorial managers shall ensure that a safety culture is established throughout the organization. They are encouraged to be the leaders of such endeavor.
- 3) Department managers shall ensure that trainings are planned annually, at necessary intervals or when moving jobs/reassigning tasks. The trainings shall cover SHE issues to ensure that executives, employees and contractors have the required knowledge and competency. SHE trainings shall, at least, cover:
 - Group policies, management standards, SHE issues and risks as well as risk management measures.
 - Relevant safe working procedures.
 - Creation of awareness and safety culture among executives, employees and contractors.
 - Knowledge and competency covering the ability to identify and assess hazards as well as the ability to extract oneself from situations that cause serious harms.
 - Relevant laws and requirements.



- Knowledge and lessons learned from accidents and experiences gained from exchange of knowledge/learning within and beyond the organization.
- 4) Department managers shall ensure that post-training evaluations include a topic regarding effectiveness in order to assess trainees' knowledge, comprehension and competency. In the case of high-risk tasks, competency assessments shall be conducted periodically at scheduled intervals and the assessment results shall be collected as evidence.
 - 5) Business line/territorial managers shall ensure that there is a session to review the compatibility of SHE competency of executives, employees and contractors with the prescribed qualifications, knowledge and competency of each job position.
 - 6) Business line/territorial managers shall ensure that there are persons responsible for the formulation of work plans, projects and activities in order to continuously create SHE awareness and culture among employees and contractors. They shall also take into consideration how employees and contractors can participate in giving feedback in order to further improve plans. Employees and contractors shall, at least, demonstrate the following behaviors:
 - Attach priority to compliance with SHE policies and management standards.
 - Take caution of SHE risks and consequences.
 - Take into account impacts and benefits from the improvement of operational environment and effectiveness.
 - Consider and understand potential impacts resulting from non-compliance with the specified operating procedures.
 - Build SHE awareness among employees and workers at all levels as well as establish a channel to communicate risk situations or conditions.
 - Create mechanisms and atmospheres that promote work safety, the right to refuse tasks that put one at risk of serious accidents and lack adequate support measures, and the right to "stop work authority" when encountered with situations that may cause hazards or incidents within the department.
 - 7) Business line/territorial and department managers shall ensure that appropriate documented information is retained as evidence of the department's competency.



Standard 8 Communication & Counselling

Purpose

To ensure communication, counselling and involvement of relevant parties in effective and reliable SHE management operations which create stakeholder trust.

Scope

Standard 8 covers communication, hazard warnings, counselling and stakeholder involvement in SHE issues as well as complaints, performance reports, initiatives and community engagement plans.

Requirements

Communication, Counselling and Involvement

- 1) Business line/territorial or department managers shall ensure the internal and external communications of policies, management standards, objectives, targets, performance indicators, work plans, operational effectiveness, changes that may cause SHE impacts, or other necessary information related to safety, occupational health and environment. External communications must be approved by the SHE Committee at business line/territorial or department level. In this regard, the management of information systems addressing the issues of information security and reputation risks shall be taken into account. A record of such communications shall be recorded in the form of a communication log at each corporate level.
- 2) Department managers shall ensure that employees at all levels are encouraged to participate in this Management Standards. They must, at least, take part in the following actions:
 - Hazard identification, risk assessment and formulation of appropriate control measures.
 - Incident or accident investigation.
 - Formulation and review of policies, objectives and targets.
 - Receive communication and counselling whenever changes that affect their safety, occupational health and environment occur.
 - Be informed of how to engage in the Management Standards as well as the list of representatives on the Employee SHE Committee.
- 3) Department managers shall communicate and provide counselling to contractors, stakeholders and other relevant parties along the supply chain whenever changes that affect safety, occupational health and environment occur.
- 4) Business line/territorial or department managers shall allocate necessary mechanisms, time and resources to appropriately provide counselling to employees and encourage their participation



in order to enable clarity, promote involvement or eliminate/minimize obstacles or barriers in counselling and engagement of non-management employees in various aspects of SHE system.

Complaints and Feedback

- 5) Department managers shall ensure that there is a system or process to receive complaints and feedback. They shall also determine channels, forms of access to the grievance and feedback process, verification methods, root cause investigation, corrective and preventive measures for internal and external complaints and feedback relating to SHE issues, legal and other requirements as a result of the department's activities. Performance results shall be recorded as evidence of communication according to the documented information process.
- 6) Department managers shall ensure that there is a system or process to report internal and external complaints and feedback relating to SHE issues. They shall also define a reporting scope and agenda for the Executive Review Report on issues that lack appropriate control or may directly cause severe impact on business line/territorial managers and business group executives.
- 7) In the event of conflict with an external party, department managers shall set up a process or procedures to promptly bring such issues to discussion with said external party in order to minimize the conflict and jointly develop corrective and preventive measures for such issues, ensuring that there is a process to encourage staff to implement the established measures to enable continuous improvement.
- 8) Business line/territorial managers shall ensure the protection of complainant/information provider's personal data and welfare to facilitate and create a creative, positive and effective communication environment.

Points of Consideration and Cautions

- 9) Department managers shall ensure that complaints and feedback are properly stored in order to analyze points of consideration, lessons learned and cautions from them. There must also be a storage process for confidential personal data, confidentiality level classification, a complainant welfare protection process, future trend assessments and operational effectiveness enhancement plans.
- 10) Business line/territorial managers shall ensure the systematic communication and exchange of points of consideration and cautions as well as take into account legal issues and regulations regarding the storage of confidential personal information and confidentiality level within the department and between departments under the business line/territory.

Community Engagement

- 11) Department managers shall ensure that there is a system to demonstrate the relationship of stakeholders with their issues of interest and the impacts from the department's operations (stakeholder mapping) as well as determine periodic reviews of the stakeholder mapping.
- 12) Department managers shall ensure that work plans are established, that stakeholders are identified, assessed and prioritized, and that a stakeholder engagement plan is determined for



those who are affected or are likely to be affected in SHE dimensions in order to create perception and good relationship.

- 13) Department managers shall ensure that a stakeholder expectation survey is executed and that a community engagement plan is established.
- 14) Department managers shall ensure that a survey of both negative and positive attitudes is conducted to formulate work plans in order to retain such positive attitudes and define correction plans for negative ones.
- 15) Department managers shall ensure that there are persons responsible within the department to address the issues of interest and expectations of stakeholders and the community.
- 16) Department managers shall ensure that the performance of the stakeholder engagement plan and community engagement plan is monitored and that a record of such performance is kept.

Reporting of Performance Effectiveness

- 17) Business line/territorial managers shall ensure that information accuracy and reliability is reviewed and verified, and that a report on SHE performance effectiveness is prepared according to the specified timeline. *(See Standard 9 Performance Evaluation)*



Standard 9 Performance Evaluation

Purpose

In order to ensure that management systems are established and effectively maintained, relevant systems must be set up to govern, monitor and review SHE performance on a regular basis to enable continuous development. SHE performance effectiveness shall also be reported in accordance with the Accident and Incident Reporting Standards, performance of corrective plans and the Group's Sustainability Report.

Scope

Standard 9 covers the monitoring and verification of the management system's compatibility, SHE performance evaluation and formulation of corrective and preventive actions, including performance reviews to enable continuous improvements and management reviews to evaluate effectiveness in accordance with the Group's Sustainability Policy, which can be executed by an internal individual, a central department or an independent external agency.

Requirements

Monitoring Operational Effectiveness

- 1) Department managers shall ensure that there is a process for planned inspection, monitoring and evaluation, analysis and assessment, formulation of corrective and preventive plans based on inspection and evaluation results, covering the following issues:
 - SHE plans
 - Risk control plan, identification of hazard, risks and opportunities
 - Scope of implementation in accordance with laws, standards and other relevant requirements
 - Meeting to follow up on performance of SHE Committee according to plan
- 2) Department managers shall ensure that the effectiveness and progress in accomplishing objectives and other control targets are defined and monitored, recorded and reported to business line managers and other relevant parties as indicated.
- 3) Department managers shall define methods to monitor, evaluate, analyze and set criteria for SHE performance assessment. Monitoring and evaluation tools and equipment shall be appropriately calibrated or verified. Documented records shall be kept as evidence.

Management Review



- 4) Business line managers are leaders in conducting the management review at business line level, which should be performed at least once a year, in order to assess the suitability, adequacy and effectiveness of SHE management. The review data shall, at least, include:
- Policies, objectives and targets
 - Internal audit results
 - Assessment of conformity with laws, standards and other requirements
 - Reporting of accident status, correction and prevention
 - Surveillance and evaluation results of changed risks and opportunities
 - Reporting of SHE performance effectiveness
 - Complaints and feedback from internal and external sources
 - Any changes that affect SHE operations and feedback on improvement from meetings

Reporting of Performance Effectiveness

- 5) Business line managers shall ensure the review and verification of information accuracy and reliability as well as the preparation of a SHE performance effectiveness report based on the indicated timeline and reporting standards and in accordance with the Group's prescribed policy.



Standard 10 Internal Audit

Purpose

To ensure the periodic audit of SHE management system and effectiveness in order to minimize risks and enable constant improvement.

Scope

Standard 10 covers audits by internal personnel, auditing departments within the Group or external independent organizations. The audits can be classified into Operation Internal Audit and Business Line Internal Audit.

Requirements

Operation Internal Audit

- 1) Department managers shall ensure that internal audits take place as planned in terms of frequency, method, persons responsible, planning requirements and reporting. In doing so, the status and importance of the process and the audited department as well as past audit results are taken into account to consider whether the SHE management process is:
 - Compatible with systems and established plans (Process)
 - Effectively implemented and maintained (Performance)
- 2) Department managers shall ensure that audit criteria and scope are appropriately defined each time. They shall also ensure objectivity and impartiality in the auditor selection and audit processes. Auditors must not audit their own operations.
- 3) Department managers shall ensure that audit results are reported to relevant executives. They shall also ensure that operators, their representatives and related stakeholders acknowledge relevant audit results.
- 4) Department managers shall ensure that all audit results have explored the cause of the error, established necessary corrective and preventive actions as well as an appropriate timeline to execute such actions in order to eliminate the error and its cause, and determined follow up activities which include performance verification and performance verification reports.
- 5) Department managers shall ensure the preparation and record of internal audit results for future reference.

Business Line Internal Audit

- 6) Business line/territorial managers shall ensure the formulation of the annual business line internal audit plan by appointing the department's top executive as the auditor. According to



the self-audit manual at business line/territorial or Group level or other equivalent methods, the auditor shall not audit his/her own department (cross audit).

- 7) Business line/territorial managers shall ensure that business line internal audits take place according to the scheduled timeline and that the summary of the audit results are submitted to the chief executive officer of the business group and the Group's Corporate Compliance Office at least once a year.
- 8) Business line/territorial managers shall ensure that all audit results have explored the cause of the error, analyzed the cause of repeated findings, established necessary corrective and preventive actions as well as an appropriate timeline to execute such actions in order to eliminate the error and its cause, and determined follow up activities which include performance verification and performance verification reports.
- 9) Business line/territorial managers shall ensure that internal audit results are recorded for future reference and that a progress report on corrective actions is submitted to the Group's Corporate Compliance Office for acknowledgement.



Standard 11 Emergency and Crisis Management

Purpose

To ensure that resources and systems have been appropriately assigned in preparation and in response to crises and emergencies as well as in an effort to achieve effective business continuity management.

Scope

Standard 11 covers the preparation and response to both intentional and unintentional crises or emergencies, including natural disasters, which affect employees, contractors, related external individuals and nearby communities in terms of SHE.

Requirements

- 1) Department managers shall ensure that situations, emergencies and crises that may occur from intentional and unintentional human actions as well as natural disasters are identified and assessed for their impacts on the lives and properties of relevant parties, the environment and nearby communities. They shall ensure that a documented record of such information is kept. Emergencies can be identified based on risk assessment results, the type and quantity of hazard source or location, etc.
- 2) Department managers shall ensure that emergency and crisis response plans, including first aid assistance, are established. Such plans shall cover the following:
 - Departmental emergency management structure
 - Roles and responsibilities of relevant parties
 - Emergency preparedness and response plan
 - Crisis management plan and warning system
 - Business continuity plan
 - Guidelines on response to emergency scenarios
 - Internal and external communications regarding assistance in emergencies
 - Relief plan
 - Recovery plan
- 3) Department managers shall ensure the allocation of resources, consisting of personnel and necessary equipment for emergency response. They shall also ensure that such resources are periodically reviewed and verified for preparedness and adequacy.
- 4) Department managers shall ensure that relevant parties, including employees, contractors, visitors and external individuals, receive communication to enable their understanding about roles and responsibilities, including the use of necessary equipment. The necessity and



competency of stakeholders and their involvement must also be considered in order to formulate a suitable response plan.

- 5) Department managers shall ensure that an emergency response drill and exercise is planned and executed at least once a year. This may be jointly carried out with an external agency and other relevant parties as deemed necessary.
- 6) Department managers shall ensure that a record of drills and exercises as well as the actual emergencies within the department and in other departments is kept. Such information should be concluded as points for consideration and cautions and communicated to other departments within the business line for further improvement.
- 7) Department managers shall ensure that the emergency response plan is reviewed and improved after an emergency and/or a drill and exercise has taken place, as deemed necessary. They shall also consider the location of a headquarter and backup site to enable continuity amidst crises.
- 8) Department managers shall ensure the preparation, implementation and maintenance of crisis management and business continuity management by establishing procedures and methods that must be communicated to employees, relevant parties and stakeholders involved in each scenario. The details of such communication of adverse events shall include:
 - Adverse event communication strategy (e.g., rumor)
 - External communication methods and processes
 - Press release guidelines or templates
 - Assignment of suitable and authorized spokesperson
 - Business continuity plan
- 9) Department managers shall ensure the preparation, implementation and maintenance of recovery procedures by determining appropriate processes, resources and capabilities to enable the organization's resumption of operations according to its missions after an incident has occurred.

The administration of the recovery plan shall, at least, comprise the following general elements:

- Definition of roles and responsibilities of groups within the department, of each individual, and of external agencies.
- Definition of a chain of command and authority for each department and those involved in the plan
- Definition of required capabilities and resources

The recovery plan formulation must, at least, take into account the following resource requirements:

- Necessary records (both document and electronic format)
- Contact list of relevant/responsible employees
- Operating procedure manual
- IT infrastructure and applications, including recovery plans and procedures
- Assistive devices/tools required by the organization and other installation locations



- Communication equipment
 - Office equipment
 - Utilities (water, energy, etc.)
- 10)** Department managers shall ensure that the scope and nature of interdependence with external agencies are considered and that the contact details and expectations of those involved are defined (mutual aid).



Standard 12 Incident Reporting & Investigation

Purpose

- To enable a system and operations that guarantee that, upon the occurrence of an event, relevant executives and employees acknowledge the facts and root causes of the incident, leading to the formulation of corresponding corrective and preventive measures which enable the speedy recovery of the injured party and their prompt return to work.
- To ensure an accurate and transparent reporting system that promotes positive corrective and preventive attitudes as well as interdepartmental information exchange (lessons learned) from such incident.

Scope

Standard 12 covers incidents (including accidents and near-miss), operating procedures, laws and regulations which may cause negative impact on people, properties, the environment or the reputation of the company, employees and other relevant parties.

Requirements

- 1) Business line/territorial managers shall ensure that the department has the following processes: reporting, evidence collection, root cause investigation, formulation of corrective and preventive measures, interdepartmental “lessons learned sharing” and assignment of roles and responsibilities of employees/relevant parties in reporting and investigating accidents and incidents according to their severity level.
- 2) Department managers shall ensure the implementation of the following systems and operations:
 - Determine incident reporting and investigation procedures and methods
 - Define roles and responsibilities in reporting and investigating incidents
 - Assign persons responsible to implement corrective and preventive actions using the hierarchy of controls and follow up on results
 - Keep a record of incident investigation reports. Accordingly, the department must have measures or systems to safeguard the confidentiality of workers’ personal information to prevent violation of the Personal Data Protection Act
 - Prepare and analyze incident statistics, report to relevant parties to improve performance effectiveness
 - Organize an exchange of lessons learned to prevent reoccurrence among the Group’s affiliated companies



- 3) In the event of a serious incident, business groups shall complete the details of such in the Group's Incident Report System, submit a copy of the investigation report, inform the progress of corrective efforts to their superiors and submit a copy of the report to the Group.



Standard 13 Design & Due Diligence Audit of Safety and Environment

Purpose

- To ensure there is a safety and environmental risk management system that includes issues relating to the community, society and human rights in the processes of site selection, design, construction and commissioning prior to actual use.
- To ensure that new projects, such as constructions, installations, including mergers and acquisitions (M&A) or joint ventures, have undergone due diligence audit of safety and environment, including issues relating to the community, society and human rights to guarantee that such organization has carried out sufficient necessary preparations in terms of management, tools, equipment, regulations and employee training.

Scope

Standard 13 covers site selection, design, construction, installation and due diligence audit of safety and environment, the organization's operating procedures and tasks which are tailored to employee performance, through to normal operations for new projects relating to safety and environment that include issues with impact on the community and human rights.

Requirements

- 1) Business line/territorial managers appoint a working group to consider safety and environmental issues as well as issues relating to the community, society and human rights during the processes of site selection, design, installation and commissioning, including the organization's operating procedures and tasks that are compatible with the nature of non-hazardous operations. The working group must, at least, be composed of:
 - Project manager
 - Safety and environment manager
 - Compliance manager
 - Engineering manager
 - Lawyers, etc.
- 2) Prior to the project's approval, business line/territorial managers shall ensure that a safety and environmental due diligence is conducted. Such process shall cover compliance with SHE laws, standards or regulations and include issues relating to the community, the society and human rights as well as an accurate and reliable guideline to manage risks found in the assessment, including creating a conformity assessment inventory.



- 3) Business line/territorial managers shall ensure that the project management plan covers the organizational structure, SHE laws, issues relating to the community and society concerned with the design, construction, installation and commissioning of systems. They shall also ensure that there is an emergency response plan, mitigation plan, remedial measures and performance evaluation.
- 4) Project managers shall ensure the review of designs for the construction, installation, operation and maintenance of newly installed/constructed machinery, buildings and systems. They shall require the review and assessment of the design's compatibility with engineering specifications, requirements, laws, design standards as well as lessons learned and experiences regarding safety and environment from past projects.
- 5) Project managers shall ensure that the construction/installation of new machinery and systems, production or operating process is compatible with engineering specifications, laws and standards in SHE.
- 6) Project managers shall ensure that a system commissioning plan is established. Such plan shall specify the qualifications of individuals, their knowledge, competency, roles and responsibilities for the department to ensure that the commissioning is executed in line with relevant requirements and standards.
- 7) Project managers shall ensure that commissioning results are reviewed both before and after the new system goes online and record such results in order to confirm its accuracy against the design and its compliance with the project's objectives.
- 8) Business line/territorial managers shall provide the summary of the project outcomes in conjunction with the management plan to business group executives for acknowledgement.



Standard 14 Supplier and Contractor, SHE Management

Purpose

- To enable a system that guarantees the careful management of risks/hazards at their root causes which may arise from the imports of production inputs, operations, composition and services from procurement and other channels which present SHE risk opportunities.
- To ensure effective SHE procurement as well as minimum to zero impact.

Scope

Standard 14 covers procurement activities that cause SHE impact on the company's operations along the supply chain. The term procurement covers goods or products relating to raw materials, chemicals, ingredients, compositions, tools, machinery and other products related to the business that can be controlled or managed by the company. The term procurement of contractors covers production contracts, outsourcing contracts, product development, new project construction, including procurement of automotives and delivery. This also covers the management of both the company and the contractor's employees.

Requirements

1. Department managers shall ensure that a system or committee has been established to consider SHE issues in procurement or that competent persons in assessment of procurement process of materials, equipment, machinery, including the hiring of contractors, take into account the identification of risks and hazards, the assessment of potential impacts and the formulation of corrective and preventive measures prior to the procurement approval.
2. Department managers shall ensure that appropriate systems are implemented in order to consider hazard sources and impacts on the environment, community and local way of life as a result of procurement operations. They must also ensure that preventive actions are carried out by determining the suitability of the hazard prevention and pollution control systems for key products, equipment and machinery prior to procurement and after their usage.
3. Department managers shall ensure that there is an inventory of key products, equipment and machinery, including a list of SHE suppliers and contractors, SHE assessment of venders and approved vender list along with hazard prevention and pollution control measures and systems of such equipment and machinery.
4. Upon procuring SHE detectors, the calibration and testing of such equipment must be taken into consideration to ensure usage accuracy. An easy-to-understand user manual for operators as well as a document control system for reference must also be available.



5. Ensure the availability of information on status and composition, cautions for moving, storage and application in the procurement of registered key products, raw materials, chemicals. User manuals and other relevant information, such as Instruction manuals, safety data sheets (SDS), should also be available.
6. Department managers shall ensure that an inspection and testing system is available, define the qualifications of the inspector, and test/inspect equipment, machinery, building and sites against the specifications and engineering drawings that have been prescribed prior to the equipment and machinery inspection which shall take place in the following cases:
 - Inspection of new equipment and machinery purchase and installation
 - Inspection of repaired equipment and machinery
 - Inspection of modified equipment and machinery
 - Other inspections must comply with requirements, standards, contracts or other relevant technical conditions
- 7) Department managers shall ensure that criteria regarding laws, standards, code of conduct and conflict of interest are defined in order to consider contractors' capabilities in responding to SHE needs in the processes of contractor selection and evaluation.
- 8) Department managers shall define the type and level of contractor control.
- 9) Department managers shall ensure the preparation of documents and/or contractor contracts which covers general SHE regulations, legal compliance requirements and consequences of non-compliance as well as the line of report, communication channels, roles and responsibilities between the department and contractors.
- 10) Department managers shall ensure that the list of SHE risks has defined formats, communication channels, accurate and safe operating guidelines and SHE requirements for contractors prior to commencing operations.
- 11) Department managers shall ensure that there is a system to track and report contractors' compliance with SHE regulations and requirements to relevant parties.
- 12) Department managers shall ensure that contractor performance assessments are carried out as reference for the approved vendor list review and contractor evaluation. The results of the evaluation shall be conveyed to the contractors.



Standard 15 Operational Control, Planned Inspection and Maintenance

Purpose

- To ensure that the availability of appropriate methods and instruction manual on safe operations, maintenance, inspection and testing of machinery and equipment, including control and inspection measures in order to maintain the effectiveness of SHE performance and control risks to an acceptable level and in accordance with the established policies and management systems.
- To ensure that procedures, methods, operating manuals and work plans are prepared and implemented accordingly in operation control, planned inspection and testing to verify equipment and machinery readiness and safety at all times.

Scope

Standard 15 covers normal operations as a result of human actions or natural disasters. Such activities include the management of hazardous chemicals, machinery maintenance, installation or disassembly of machinery and equipment, planned inspections, including inspections of tools and equipment or as part of critical equipment operation, such as pollution control equipment, wastewater management system, safety guards and responsive tools in emergencies (e.g., fire extinguishing system, warning system, emergency exits, warning signs, etc.) in accordance with legal and other requirements relating to SHE.

Requirements

- 1) Department managers shall ensure the preparation of SHE regulations, manuals or working procedures as standards and working procedures for employees, contractors and other relevant parties and enable their effective implementation with emphasis on prevention at the root cause or risk source, such as hazardous energy, environmental pollution sources.
- 2) Department managers shall ensure the acquisition of adequate personal protective equipment (PPE) and maintain operational document that are effective in controlling operations. The lack of PPE and non-compliance with such operating procedures will lead to risks, hazards and inconsistencies with SHE policies, management standards, work plans or targets.
- 3) Department managers shall ensure that the chemical inventory and critical equipment inventory are established. They shall also ensure that there is a plan for safety inspection and maintenance and that such plans are implemented. Results of performance, inspections, maintenance of such equipment, tools, machinery shall be recorded and reported to the SHE Committee.
- 4) Department managers shall ensure the preparation, implementation and preservation of a machinery and equipment maintenance plan, which include inspections, testing, calibrations, and certifications. The frequency of such activities is defined to suit the level of risk and in



accordance with the requirements of the manufacturer, the law or other relevant regulations to ensure the efficiency and reliability of machinery and equipment.

- 5) Department managers shall ensure that employees and related parties have clear understanding of safety information in using materials, equipment in the workplace, and hazardous chemicals (safety data sheet). This also includes understanding of machinery and equipment instruction and maintenance manuals, operating procedures for safety and the environment, which cover the criteria in controlling machinery and equipment. Such information shall be documented and reviewed throughout the lifetime of such machinery and equipment.
- 6) In the event that the design data and control criteria of machinery and equipment need to be changed, such change must undergo a change management process. *(See Standard 3 Risk Management and Standard 4 Management of Change)*
- 7) Department managers shall ensure that key operational data is periodically evaluated, inspected monitored, analyzed and reviewed in order to identify the likelihood of risks from both human actions and natural disasters (such as floods, earthquake, storm, etc.) in order to explore preventive or corrective measures. *(See Standard 11 Emergency and Crisis Management)*
- 8) Department managers shall ensure the review of test results both before and after the system goes online and record the results of such tests to confirm the accuracy against the design, covering the following cases:
 - New equipment and machinery
 - Repaired equipment and machinery
 - Modified equipment and machinery
- 9) Business line/territorial managers shall ensure that employees and contractors carrying out SHE-related activities have the appropriate qualifications and abilities. *(See Standard 7 Competency, Awareness and Culture)*