

HEALTH, SAFETY AND ENVIRONMENT MANAGEMENT SYSTEM ►



DENISPECTION Consulting Eng. & Inspection Co.

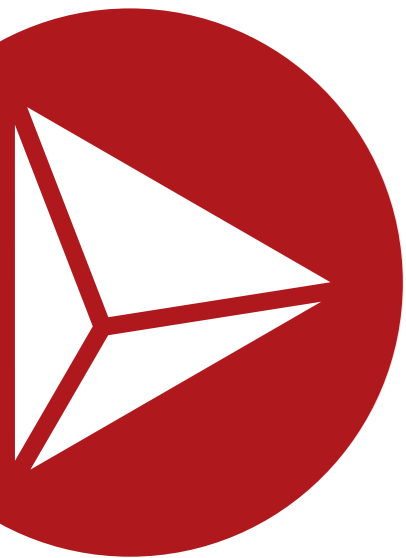


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FOREWORD

JAN-2022 Rev 04

Dear Colleagues,

Effective Health, Safety and Environmental (HSE) management and high level HSE awareness lie at the heart of DCICO Group's business and have become more crucial than ever. We operate in a hazardous environment on a daily basis, and so it is essential that our approach to sustainable development and risk management relies on our commitment to act responsibly and proactively on the safety, health and environmental impact of our activities.

This Management System Handbook has been designed to provide you, as leaders and experts, with the necessary support in driving and embedding HSE across the organisation. Preventing accidents, protecting our colleagues, contractors, and reducing our environmental footprint are the responsibilities of all employees in DCICO Group. Our leadership, with professional support from the SD & HSE teams, must reinforce systematic management and implementation, and promote our HSE culture at all levels of operations.

This new, updated edition of the HSE Management System Handbook is a collection of shorter, more comprehensive guidelines that will ensure a more direct, transparent approach to the DCICO Group HSE strategy and management framework than previously. By clarifying accountabilities in the HSE field, the manual enables all leaders to create and maintain an ownership culture in your teams, furthering the implementation of guidelines. We encourage you to contact SD & HSE experts for any additional support you may need in applying the HSE MS manual more effectively.

While these Group-level regulations contain the minimum requirements concerning health, safety and environmental compliance, additional measures need to be defined at a local or operating entity level as well.

We are confident that the refined HSE Management System, our common approach and the joint delivery of these guidelines will contribute to the success of our business strategy.



INTRODUCTION

Operating under risky circumstances daily, DCICO Group relies heavily on an effective and sustainable Health, Safety and Environment Management System. The Group HSE and Social Impact Policy is the foundation of all HSE management systems at various DCICO Group levels. The main goal of this guideline is to define the Group-level Health, Safety and Environment, as well as Community Impact requirements to support DCICO Group's strategic business objectives.

On the road towards improved efficiency and increased transparency, we have introduced improvements in the framework since the last handbook edition in 2018. For the first time, the Social Impacts element requirements have been incorporated as part of the main management framework. This refreshed HSE MS manual provides for shorter, clearer and more streamlined requirements with which all DCICO Group colleagues must to comply. The Management System has been aligned with ISO 14001 standard and so it supports external certification authorities as well. In addition, our Process Safety Management has also been integrated into Group HSE MS, ensuring a better understanding of the overall HSE conditions and requirements at an operating company level. Under certain Guideline elements, Group Practices have been issued to support the better understanding of Group SD & HSE requirements.

Enabling our leaders and colleagues to embed HSE into our operations and our corporate culture, as well as to increase HSE awareness will be key to our success in achieving our business targets. Therefore, in support of the updated HSE MS, we introduced a live, interactive, and continuously refreshed HSE Toolbox. It contains best practices, templates and compliance checklists that make **the HSE Toolbox a very useful device for all line managers and experts to use in daily operations.**

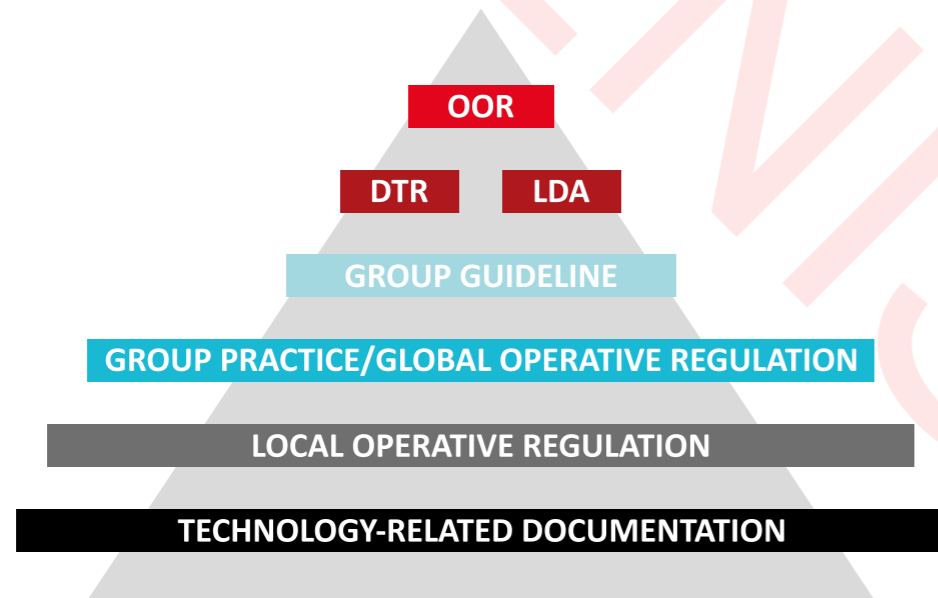
Our aim has been to create an overarching Group Guideline that ensures a strong practical foundation in the context of day-to-day business. Therefore, Group SD & HSE has been closely cooperating with the various Businesses and Functional Units to assess any needs in the field and introduce changes where necessary.

While the accountability to implement DCICO Group HSE MS lies with everyone in the organisation, please remember that all employees, as well as contractors have a responsibility to maintain high HSE standards.

Group SD & HSE

HSE MS MANUAL AND HSE TOOLBOX IN THE DCICO GROUP REGULATORY SYSTEM

The DCICO Group Governance System serves as a framework and a tool as it sets rules and provides guidance and best practices for DCICO Group Companies on how to operate in an optimum way. The Regulatory System can be visualised as a pyramid which represents the following elements:



This **DCICO Group HSE Management System** document is an overarching Group Guideline that ensures the Group-level governance of HSE and includes basic principles and rules that apply in this field across the entire organisation.

Certain elements in the HSE MS Handbook are supplemented by **Group Practices** (GP). You can access these on the Group SD & HSE Management MOS site and on the CIP among the “List of valid Regulations”.

The expectations by the HSE MS Manual and the requirements by the Group Practices are complemented by **Local Operative Regulations** (LOR) that regulate and apply to all HSE aspects of daily operations in the OpCos.

All recommended reference documents (including compliance checklists, best practices, templates, process methodologies, training materials, etc.) are stored in the **HSE Toolbox**. These **Technology and HSE Related Documents** support DCICO Group managers and employees to embed HSE into DCICO Group operations as well as ensuring a relevant framework for the implementation of these rules as part of corporate culture. **The HSE Toolbox is therefore a highly recommended and very useful tool for all DCICO Group employees to use in day-to-day operations.** Using the recommended practices is similar to that of standards: if the OpCo decides to follow another practice, it must be proven that the methodology and procedure is at least as safe and reliable as the practice recommended by the Group. The HSE Toolbox is available on the Group SD & HSE MOS site under the ‘SD & HSE Strategy, Policy, Targets and Regulations’ menu.

HSE-MS ELEMENTS AT GLANCE

Elements marked with * are supplemented with **Group Practices** (GP) that are available at the Group SD&HSE Management MOS site.

ELEMENT 1: Leadership, Commitment & Accountability

Leaders, managers, employees and contractors understand their accountabilities and demonstrate leadership and commitment to Group HSE and Social Impact Policy through visible and effective HSE management.

ELEMENT 2: Risk & Change Management*

HSE hazards and risks associated with DCICO Group activities are identified, assessed and managed to prevent or reduce the likelihood and consequences of incidents. Planned and unplanned changes must be identified and managed.

ELEMENT 3: Competence, Training & Awareness

Employees, contractors and visitors are aware of relevant HSE requirements, hazards, risks and controls, are competent to conduct their activities and behave responsibly. Skills and competencies are regularly assessed.

ELEMENT 4: Planning & Targets

HSE Planning is an integral part of business planning with strategic objectives, goals, and annual targets to drive performance improvement.

ELEMENT 5: Contractor HSE Management*

Contractors are assessed for their capabilities and competencies to perform work for or on behalf of DCICO Group, and to ensure that their HSE performance is aligned with DCICO Group requirements.

ELEMENT 6: Design, Construction, Commissioning & Decommissioning*

Assessment and management of HSE risks is an integral part of project design, construction, commissioning and decommissioning which enables sound HSE performance throughout the construction and operational life of the facility.

ELEMENT 7: Safe Operation & Work Practices*

All plants and assets are operated and maintained according to regulations, programs, procedures and standards that are implemented to manage risk.

ELEMENT 8: Health Protection & Promotion*

Programs to protect employee health and provide medical treatment are in place. Employees are encouraged to lead a healthy lifestyle.

ELEMENT 9: Environmental Management

The DCICO Group environmental footprint is reduced and environmental performance is improved through implementation of requirements to minimize and/or prevent impacts from our operations.

BUSINESS RULES

I. Leadership, Commitment & Accountability

- I.1 Everyone in DCICO Group is personally responsible for HSE (at his/her level).
- I.2 HSE Strategy, plans and objectives are Business responsibility.
- I.3 Systems for HSE management must be established, implemented and supported throughout the organisation.
- I.4 Roles, responsibilities, authorities and accountabilities must be clearly established.

Leaders must be fully aware and demonstrate visible leadership and proactive commitment towards HSE excellence through:

- a. setting a personal example to follow
- b. communicating HSE requirements to employees clearly
- c. discussing and reviewing progress against HSE targets
- d. demonstrating personal participation in HSE initiatives
- e. recognising good practice
- f. applying progressive consequence

- I.5 Leaders must integrate HSE issues as first agenda points into management meetings or set up equivalent managerial HSE Forum. Leaders must integrate Group HSE targets into their business targets as well as business and personal performance evaluation systems.

- I.6 Leaders must engage in clear, two-way communication with employees, contractors and third parties on HSE issues. Leaders must ensure HSE trainings in their area of responsibilities.

- I.7 Employees, contractors and customers must be aware of proper HSE behaviour expected from them and consequences of inappropriate conduct.

- I.8 Systems must be in place that recognize, reinforce and reward HSE performance, innovation, initiatives and desired behavior.

- I.9 Employees and contractors must understand that they have the right and responsibility to stop work or refuse to work in circumstances that may cause HSE harm, and to immediately bring these situations to the attention of management.

- I.10 Leaders must have the knowledge and skills to apply management system tools.

Records to be retained

- > Local version of the HSE and Social Impact Policy
- > Documented Management System, Guidelines and rules
- > Meeting agendas indicating the incorporation of HSE topics
- > Managers' site inspection records, reports
- > HSE Strategies, Action Plans and objectives
- > Performance (organizational and individual) management related documents



II. Risk & Change Management

- II.1** A system must be in place to identify, assess, manage, regularly review and document health, safety and environment related hazards and risks associated with all activities (including project definition and implementation, operation, workplace, task related, etc.).
- II.2** Fire Hazard Analysis¹ must be available for all operations and plants where the amounts of flammable materials indicate high risk of serious process incident (fire or explosion) occurrence.
- II.3** The methodology used for risk assessment must be selected appropriately to the complexity of the assessed activities/workplaces.
- II.4** Risk assessment must be conducted by competent personnel with appropriate knowledge and experience.
- II.5** Identified risks, preventive, control and mitigation measures must be documented and tracking system for regular reviews must be in place, to ensure recommendations are implemented.
- II.6** Risk maps must be available on Business and legal entity level.
- II.7** Identified risks, preventive, control and mitigation measures must be communicated to all relevant employees and affected parties.
- II.8** Management of change process must be in place in PSM relevant businesses to assess, control and manage all critical changes to organization/personnel, technologies, facilities and processes. The system must also assure proper authorization of changes, essential communication and training so that all affected businesses can successfully manage new risks.
- II.9** Changes (even temporary) in operations, processes and activities can potentially invalidate prior risk assessments; therefore all changes must be accordingly re-assessed from risks point of view. Risk assessments related to changes must be subject to the same rigorous review that is applied to new processes and activities.
- II.10** PSM relevant technologies/operations must be compliant with relevant PSM requirements defined in PSM Audit questionnaires.

- Records to be retained**
- Written procedure on Risk and Change Management
 - Technology and workplace related risk assessments
 - Risk assessment schedule/program (for periodic risk assessment)
 - Risk Map(s)
 - Recommendations and their tracking
 - Change authorization documentation
 - Temporary operating manual (if applicable)

¹ Proposed content of Fire Hazard Analysis – see Risk Assessment HSE Toolbox package

III. Competence, Training & Awareness

- III.1** Recruitment, selection and placement processes must be in place to ensure that personnel are qualified, competent and physically and mentally able to meet job requirements.
- III.2** Legally required HSE qualifications must be met for specific jobs.

- III.3** Employee and contractor/supplier HSE and process safety competencies and training needs must be identified, documented and periodically reviewed. Training plans and calendars must be synchronized with HR for best resource management.

Written procedures must exist to govern HSE Competency Assessments and Training procedures at company level. It must contain the following:

- III.4**
- a. Content; length of the induction HSE Training and the way of examination;
 - b. Requirements regarding the training of visitors, students and part time employees;
 - c. Practical training requirements if applicable;
 - d. Refreshing training requirements including frequency (yearly frequency is recommended) and topics:
 - induction and practical training topics,
 - new HSE requirements becoming effective since the last training,
 - lessons learned from incidents.

- III.5** New hires have to be trained before starting work individually, refresher training must take place periodically.

Induction Training materials must contain the following topics as a minimum:

- III.6**
- a. HSE Policy
 - b. Work safety rules
 - c. Hazards of work places, processes and materials
 - d. Environmental protection
 - e. Fire-protection
 - f. Work-hygiene
 - g. First-aid knowledge
 - h. Rules in case of fire & emergency rules
 - i. Life Saving Rules

- III.7** The induction HSE Training must be held by competent person.

- III.8** A test for understanding must be carried out after the training.

- III.9** Language and cultural circumstances must be considered when planning and delivering/performing training.

- III.10** After returning to work after more than 6 months of break the employee must be regarded as a new hire and be trained accordingly.

- III.11** HSE and Process Safety Critical Jobs and relevant competencies including training needs must be determined.

Employees working in Process Safety Critical Jobs must be trained at least on following:

- III.12**
- a. Basic operational skills;
 - b. Specific process or job task training - specific safety and health risks and procedures and safe work practices applicable to an employee's assignment;
 - c. Emergency response and control procedures - training shall cover safe and prompt shutdown of facilities, accounting for personnel, first-aid assistance, notification of affected parties, coordination with site and local emergency response groups, and notification of regulatory agencies and fire-fighting efforts.

- III.13** Criteria and local regulation regarding management of change of process safety critical personnel must be in place to ensure that minimum levels of specific, direct, process experience and minimum levels of knowledge and skill in managing process safety are maintained.

- III.14** After serious incidents, the affected department leader(s) must perform extraordinary training on the lessons learnt points to prevent recurrence.

III.15	Induction and yearly refresher training must be held for Filling Station staff (COCA, CODO & DODO operation modes).
III.16	Contractors/Suppliers working permanently or temporarily on DCICO Group sites must be trained. For reference see details in HSE_1_G5.1.1 Contractor HSE Management Global Operative Regulation.
III.17	Visitors and others not permanently working for DCICO Group must be informed about basic local HSE rules (before entering site).
Records to be retained	<ul style="list-style-type: none"> > Competency assessment records > Training records > Required Professional HSE related qualifications > Required PSM records

IV. Planning & Targets

IV.1	HSE Planning is an integrated part of Business Planning, its schedule must always be harmonized with the DCICO Group planning calendar.
IV.2	HSE Planning at all level must be in line with the HSE & Social Impact Policy and with approved HSE Strategy and annual strategic objectives.
IV.3	As a minimum, Group and Business Performance Indicators must be used to measure HSE performance in Businesses and in affected Functional Unit(s).
IV.4	HSE KPIs must be incorporated into employee's and managerial performance system.
IV.5	DCICO Group companies, for their Business Unit(s) and affected Functional Unit(s) must annually set: <ul style="list-style-type: none"> > measureable HSE objectives and targets; > leading and lagging indicators that are documented, communicated, monitored and reviewed. They must be consistent with the DCICO Group level HSE targets, taking into account the relevant HSE risks, legal requirements, and consider technological aspects, Business requirements and the interests of stakeholders
IV.6	Annual HSE Action Plan (actions, tasks, projects and programs) must be put in place and include responsibilities, resources and time frames to achieve HSE targets and objectives.
IV.7	Action Plan must be approved and communicated by relevant management level (Group, Business and/or company).
IV.8	HSE spend/costs must be considered, CAPEX and OPEX needs and other resources and they must be incorporated into Business Plan.
IV.9	To compile an annual HSE Action Plan the following inputs must be considered: <ol style="list-style-type: none"> a. HSE & Social Impact policy, strategic goals and objectives, b. HSE (liability) assessment reports, requirement of relevant HSE legislations, c. HSE risk map, HSE training needs, d. Findings of previous HSE audits (internal and external) and relevant improvement actions, e. Stakeholders' expectations, f. Availability of the company resources.

IV.10	Annual HSE Action Plan(s) must be updated and communicated when significant change(s) or new development(s) occur(s).
IV.11	Performance, action plans and targets must be monitored on on-going basis by responsible persons and management as decided by leadership.
IV.12	Company level regulation must exist for local reporting requirements including company responsible, deadlines, data gathering process.
IV.13	The following minimum aspects must be regulated: <ol style="list-style-type: none"> a. identification of data source of each HSE (K)PI; b. establish the process of reporting HSE (K)PIs, c. nomination of data owner to each HSE (K)PI, d. nomination of approval of (K)PI report.
IV.14	The data gathered, must serve as basis for analysis and for future improvement(s) of DCICO Group Company(ies).
IV.15	Aggregated data must be used for management reviews and as input for for continuous HSE improvement actions and decisions.
IV.16	The reported data, the analysis result must be shared with line Management, who have the responsibility to take action(s) on the basis of the information, on proposed step(s).
Records to be retained	<ul style="list-style-type: none"> > Group Strategic Objectives, Group level HSE Targets and (Key) Performance Indicators > Business and affected Functional Unit(s)/Flagship HSE Strategic Objectives, Targets, (Key) Performance Indicators > HSE Programs and Action Plans > All records proving data correctness on Business, Functional Unit, company and Group level

V. Contractor HSE Management

V.1	Contractual works must be carefully planned. Hazards and risks associated with contractor activities must be identified, assessed, communicated and managed throughout the procurement process and the entire duration of the contract.
V.2	Contractors must be pre-screened and/or pre-qualified depending on contract risk category to perform work in a safe and environmentally sound manner.
V.3	Interfaces between contract owner/site owner and contractors must be identified and managed. Contractors must be trained on HSE principles prior commencing any work.
V.4	It must be ensured that the Contractors are in control of their own activities; their monitoring must be performed in necessary frequency.
V.5	All contracted or ordered tasks to be completed safely, in accordance with established procedures and/or safe work practices.
V.6	Principles of progressive disciplinary/consequence application must be followed in case of safety rule violations, unsafe acting or creation of unsafe conditions. Contractors must be encouraged to report unsafe acts and conditions, safety rule violations as well as incidents.
V.7	A system for post-evaluation of Contractors involved in medium and/or high risk category contracts with DCICO Group must be in place and used.

V.8 Single Service Companies of DCICO Group must have a valid certificate based on SCC/SCC^p, no later than December 12, 2019.

- Records to be retained**
- Records about decision on risk category and work complexity
 - Pre-screening questionnaire
 - Pre-screening/pre-qualification/process deviation approval records
 - Pre-screening/pre-qualification records/database
 - HSE plan
 - HSE audit/inspection/observation etc. records
 - Permits to work
 - On site review meeting memo
 - Post-evaluation records/database

VI. Design, Construction, Commissioning & Decommissioning

VI.1 The planning, design and selection of new technologies, sites/plant, equipment and workplaces must take into account known and projected HSE aspects and risks, and consider provisions for maintenance, modification, decommissioning, disposal and closure.

VI.2 Project HSE plans, relevant legal requirements/procedures defining technical integrity, HSE specifications and quality assurance requirements must be established, documented, understood and their implementation must be verified.

VI.3 Technical standards for design, construction and commissioning (including any modifications) must meet or exceed regulatory requirements, relevant industry codes and standards. Recognized and generally accepted good engineering practises (RAGAGEP), process safety and risk management principles must be applied.

VI.4 During facility design and construction, technical and HSE risks, social and environmental impacts, emissions and discharges minimisation must be considered.

VI.5 Design review process must ensure that HSE risks and related considerations are effectively identified, addressed and documented.

VI.6 Operational, maintenance and HSE expertise must be integrated early in the project/design phase. Experiences from previous projects and current operations must be applied.

VI.7 A commissioning plan must be documented and approved so that it incorporates HSE risk management and defines responsibilities and competencies. The plan must ensure that the facility, plant and equipment conform to required standards for start-up and operability.

VI.8 Pre-start-up review must be conducted and documented to confirm that the facility is safe to start-up.

VI.9 Decommissioning plan must be established prior to decommissioning.

- Records to be retained**
- Project HSE plan
 - Final design documentation (as built)
 - Equipment design basis - documentation
 - Written procedure on Quality Assurance (PSM relevant)
 - Quality control procedures
 - Records from tests and inspections
 - Records from PSSRs (PSM relevant)



VII. Safe Operation & Work Practices

- VII.1** Safe systems of works must be established, implemented and maintained to ensure that all health and safety related risks are adequately managed.
- VII.2** Own staff as well as contractors must exercise safe behaviour; follow safe operational rules as well as safe work practices.
- VII.3** Safety critical operational processes and activities must be identified and executed according to documented regulations to ensure appropriate control and safe operation.
- VII.4** Permit to work process must be established to ensure that hazardous, non-routine work is assessed, planned, authorized and carried out in a way that ensures health and safety of the employees and contractors involved, and others who may be affected.
- VII.5** Hazardous energy control and isolation process must be established that ensures health and safety of the employees and contractors involved, and others who may be affected.
- VII.6** Plant and equipment must be operated and maintained within design parameters, using systems and procedures that manage the HSE risk.
- VII.7** Systems must be established, documented and maintained to ensure the ongoing integrity of plant and equipment. These must include procedures for maintenance, inspection, testing, calibration and certification of equipment at frequencies that meet legal and manufacturer requirements.
- VII.8** Any modification of operating or design limits must be subject to a Management of Change (MoC) process.
- VII.9** An appropriate fire prevention system must be operated and maintained to prevent the evolution of circumstances that may cause fire or explosion in operational areas.
- VII.10** The reliability and availability of protective systems and equipment (critical alarm, shutdown, emergency-response, PPE etc.) must be maintained through appropriate testing and maintenance programs, including management of temporary disarming, overriding, by-passing or deactivation.
- VII.11** Appropriate controls must be implemented to prevent road accidents in line with the Road Safety principles.

Records to be retained

- Relevant Local operative regulation(s)
- Relevant PSM element audit questionnaires
- Copies of open/closed PTWs
- Gas detector certifications and calibration documents
- Training diaries
- Personal certifications for operating hazardous machinery (e.g. fork lift operator) or performing high risk activity (e.g. rigger) in line with local legislation
- Incident database (including Life Saving Rule violations)
- Certifications and inspection documents of cranes, hoists and lifting equipment
- Certifications and/or inspection documents of personal fall protection systems and other PPE
- Scaffold handover tag template
- Operating procedures and records etc.

VIII. Health Protection & Promotion

- VIII.1** Chemical, physical, biological, psychological/psycho-social and ergonomics workplace hazards must be identified and their inventory must be available. The hazard related exposures or risks must be assessed and regularly revised by competent personnel.
- VIII.2** Health exposures or risks must be managed through preventative and protection measures.
- VIII.3** Task/job related health screenings (fitness for duty medical evaluations) of all employees must be performed regularly in line with local legal and DCICO Group requirements.
- VIII.4** First aid facilities and/or ready access to adequate medical services must be ensured at every worksite based on complexity of operation, number of employees and remoteness of the worksite (i.e. basic first aid to full scale medics/paramedics intervention). Urgent off-site emergency medical service (including medical evacuation) must be available within the local legal requirements and at least within 4 hours even in case of the most remote worksite.
- VIII.5** A formal program to return to work/fitness for duty and to promote health, wellness must be in place.
- Records to be retained**
- Sampling results
 - Medical records
 - Fitness for duty records
 - Medical protocols
 - Housekeeping records
 - Catering hygiene and food safety records

IX. Environmental Management

Legal requirements and internal standards

- IX.1** All activities must be developed and implemented in accordance with relevant local/international environmental legislative and regulatory requirements.
- IX.2** A management process must be in place by which all new external and internal legislative and regulatory developments are tracked, their impact on the business is assessed and the compliance actions are incorporated into the business planning process.
- IX.3** Internal standards defined in other regulations and/or HSE Toolbox must be followed. In situations where there are differences between internal requirements and legal requirements, the more stringent requirements must be followed.

Management tools

- IX.4** Each company must establish an environmental management system, which may be part of the HSE Management System, to effectively identify and control key environmental impacts and risks.
- IX.5** For all major projects (new activities, facility developments and/or significant modification of existing operations) environmental aspects must be assessed with an appropriate tool (e.g. Environmental Impact Assessment, ENVID etc.).

IX.6 Application of best available techniques (BAT) must be considered in the design phase of project development.

IX.7 Environmental liabilities of operations appointed for closure (including for a temporary period), decommissioning, abandonment and divestment must be assessed and their control/management must be clarified.

Key Environmental Elements

Green House Gases (GHG) and Energy Efficiency:

- IX.8**
- a. GHG emission plans covering direct and indirect emissions must be in place, monitored and reported according to local legal requirements and DCICO Group requirements
 - b. An energy management plan must be developed with the aim to reduce energy consumption, costs, and GHG emission

Air emissions:

- IX.9**
- a. All key air emissions (such as SO_x, NO_x, CH₄, NMVOC, particulate matter, etc.) must be monitored and reported in accordance with local legal requirements and DCICO Group requirements
 - b. Application of the most environmental friendly and economically feasible methods to inventory, control and reduce air emissions must be ensured. A location specific air emission risk assessment must be in place in accordance with Risk and Change Management Regulation

Water management:

- IX.10**
- a. A location specific assessment of water related risk to operations, the environment and community must be in place in accordance with Risk and Change Management Regulation
 - b. Processes must be in place to track water consumptions and plans must be developed to increase the efficiency of operations and minimize water usage and losses.
 - c. Wastewater discharges must be monitored, characterized and documented. Water discharge limits must be revised when the case (i.e. when business activities or processes change that could result in changes in water discharge characteristics) in accordance with international/local legal requirements and internal requirements (if any)
 - d. Operations must ensure, that hazardous substances are handled safely, that leaks and spills are prevented, and waste water is discharged only to the designated discharge points, complying with applicable discharge limits.

Waste management:

- IX.11**
- a. Hazardous and non-hazardous waste inventory and classification and a waste management programme must be developed, maintained and reviewed on a regular basis. The programme must contain as minimum the following steps: methods to appropriately manage the waste, to minimise the waste generation, to identify the ultimate end point of treatment and disposal for all wastes, including any residues from treatment
 - b. Opportunities to eliminate, remove, reduce, reuse, recycle and recover waste wherever practicable must be identified via the waste management programme and implemented based on the specificity of each site. Special attention must be focused on hazardous and/or high volume wastes. Feasibility of pre-treatment of waste (e.g. filtration, centrifuging, solidification) must be assessed in order to make the choice of final disposal easier or more economical.

Spill and Loss Prevention:

- IX.12**
- a. A risk assessment process associated with hazardous material (including oil) spills must be developed taking into account the site specificity (upstream operation, logistic depot, transportation, etc)
 - b. Based on the risk assessment, a spill prevention plan/programme must be in place so as to avoid contamination of land, groundwater and surface waters.
 - c. An Emergency Response Plan (ERP) developed based on assessed risks including those relating to potential hazardous materials spills must be in place in accordance with the Emergency Planning and Response Regulation.

Soil and groundwater protection:

- IX.13**
- a. A location specific risk assessment must be elaborated for the protection of soil and underground water, developed in accordance with Risk and Change Management Regulation
 - b. The contamination of soil and groundwater from past and current operation must be assessed at least every 5 years at all sites selected on a risk basis. In the event that significant soil and/or groundwater contamination is suspected/found, the cause of the contamination must be investigated and mitigation measures must be taken to prevent further contamination from that source and remedial action must be taken to clean up the contamination to the satisfaction of the local regulatory authorities or to a level that will avoid undue risk to human health or ecological receptors, as determined by the site-specific risk assessment, whichever is the more stringent.

Biodiversity

- IX.14**
- a. A Biodiversity action plan (BAP) must be developed, implemented and reviewed in case of change in operation or legal requirements in each site which is in/adjacent to environmentally sensitive area. Recommended practice: engagement with stakeholders (e.g. National Parks, green NGOs, etc.)
 - b. The statements of the Biodiversity Action Plan have to be evaluated annually.
 - c. The Biodiversity Action Plan has to be taken into account in the project planning phase.

IX.15 Light pollution, noise, vibration, odour: Impacts related to light pollution, noise, vibration and odour must be assessed and managed.

- Records to be retained**
- > Environmental reports – emission inventories
 - > Environmental permits and licence to operate
 - > Waste management plan
 - > Energy Management Plan
 - > Environmental (and Social) Impact Assessment
 - > Water pollution emergency plans
 - > Biodiversity Action Plan

X. Requirements, Information & Documentation

Legal and other requirements

- X.1** Businesses and/or Operating companies must develop, implement and maintain a documented procedure(s) to:
- a. identify and access all legal requirements and other requirements to which the operating company subscribes and that are applicable to its activities, products and services (e.g. Operating companies shall monitor additional laws and regulations affecting activities outside the range of Group HSE monitoring activities);
 - b. track, review, understand legal requirements and distribute them among departments to ensure compliance



X.2 In case a company has other standard based requirement system(s) in force e.g. ISO 14001, or other specific industry recommended practices (e.g. OGP, IADC) this/these system(s) must be fully harmonized with DCICO Group HSE MS requirements

Information and Documentation

X.3 Information necessary for identification and understanding HSE hazards derived from DCICO Group activities and operations must be kept continuously in up-to-date status.

X.4 Business where Process Safety Management is relevant, must have a system to ensure continuous up-to-date status and availability of process safety information package – hazard of material, process/ technology design bases and equipment design bases.

X.5 Relevant process safety information must be communicated to all employees (own or contractors) who are involved in operation or maintenance of PSM relevant technologies/operations.

The following documents are regarded as controlled HSE documents:

- X.6** > HSE and Social Impact Policy,
- > HSE Group Guideline,
- > Group Level Regulations,
- > HSE Local Operative Regulations.

X.7 HSE Documents and Information must exist in languages understandable to the affected employees, contractors and other parties.

X.8 Controlled HSE documents must be approved prior to issue; and after any update documents must be re-approved.

X.9 Controlled HSE documents must contain as a minimum: owner, approver, date of revision, date of effect, identification (e.g. title, number, etc.), scope and applicability.

X.10 Records must be retained according to the rules of DCICO Group’s Document management Global regulation and remain legible, identifiable and traceable.

Records to be retained

- > List of applicable HSE legal and/or regulatory requirements.
- > List of permits, consent orders, certificates of operation, certificates by external companies, etc., applicable to an operating company indicating the compliance status
- > List of other (e.g. voluntary) requirements to which an operating company subscribes
- > Records verifying compliance with legal and other requirements

XI. Product Stewardship

XI.1 Ownership of Product Stewardship within DCICO Group and relevant member companies must be assigned and responsibilities for individual Product Stewardship process steps must be defined.

XI.2 Product stewardship process must identify risks related to dangerous substances/products at an early stage and manage those risks along the value chain (i.e. development, authorization, registration and restriction on their manufacture, market distribution, use, disposal or recycle), thereby enabling adequate protection of human health and the environment.

XI.3 New product assessments must be conducted prior introduction to market in order to identify and address health, safety and environmental hazards and risk associated with their normal use and potential misuse. Periodic re-assessments must be conducted if product specification changes, including collection and review of adverse effects reported or experienced. Records of assessment and re-assessment must be kept up-to-date. A product dossier must be established for all dangerous products bringing together all the information that the company holds on a product throughout the lifecycle.

XI.4 A control process must be in place and operation for introduction of new hazardous products into the manufacturing or operation process incl. selection of relevant Safety Data Sheet with Exposure Scenarios (where applicable) and related operational conditions (OC) and risk management measures (RMM). An audit process must be in place and operation to ensure control over implementation of operational conditions and risk management measures defined in relevant Exposure Scenarios (ESs).

XI.5 Packaging and labelling of dangerous products put on market must be in line with classification, packaging and labelling standards (national and/or international – e.g. CLP, GHS).

XI.6 A system must be in place to respond to emergency requests for DCICO Group product health, safety and environmental information. Safety Data Sheets must be developed in line with national and/or international standards and made available.

XI.7 A procedure for dealing with complaints and inquiries must be in place, including a re-call process for dangerous products where defect could give rise to health, safety and environmental hazards.

XI.8 Transportation of dangerous goods ensured or contracted by DCICO Group member company must be in line with the national and/or international standards related to carriage of dangerous goods (e.g. ADR, ADN, RID etc).

Records to be retained

- List of identified uses of substances,
- Labels.

XII. Communication & Consultation

XII.1 Open and proactive communications must be established and maintained with employees, contractors, regulatory agencies, public organizations, communities and all others stakeholders.

XII.2 External and internal communication must present the company's HSE commitment.

XII.3 HSE communication plan must be developed, implemented and reviewed regularly.

XII.4 Safety Councils must be set up and operated taking into account relevant legal requirements, if any.

XII.5 External stakeholder inquiries and complaints must be recorded, answered and investigated (if relevant) and must be regularly reviewed by the management. Communications concerning HSE performance must be directed to SD & HSE Manager, or authorized designee to determine an appropriate response.

XII.6 The SD & HSE Manager must retain copies of all written communications from external parties, including regulators, on HSE matters for the predefined time period based on the Record Retention Rules of DCICO Group.

XII.7 All HSE relevant communication with media must be pre-approved by the relevant Communication department .

Records to be retained

- HSE Communication Plan (can be part of overall communication plan)
- External HSE communication requests
- Internal/external communication materials – Communication approvals
- Communications received from regulators and non-governmental organizations
- Sustainability Reports
- Safety Council meeting minutes and related action plans

XIII. Incident Reporting & Investigation

XIII.1 All HSE incidents must be reported, mitigated, recorded, investigated and analyzed in a timely manner.

XIII.2 Initial incident consequence classification must be performed for People, Environment Assets, and Reputation (PEAR) or HiPo categories when reporting the incident.

XIII.3 High risk incidents and major incidents must be investigated by a multi-functional/level team with participation and leadership from outside the Business Unit concerned. In case of process incidents the failed PSM element(s) must be identified.

XIII.4 The root causes of incidents must be identified so that actions can be taken to prevent their recurrence.

XIII.5 Corrective and preventive actions must be identified and prioritized aiming to eliminate or reduce the risk and recurrence of incidents and near-misses (all recommendations should be in the form of measurable actions with clearly-defined responsible parties and time scales for implementation).

XIII.6 For major incidents and HiPo incidents, the relevant investigation reports must be submitted to DCICO Group for pre-approval – before finalizing the report.

XIII.7 Information gathered from incidents must be analyzed to identify lessons learned and to monitor trends. Relevant lessons learned must be shared across the organization with stakeholders, and others as appropriate, to prevent such incidents recurring.

XIII.8 HSE near-misses, unsafe acts and unsafe condition must be reported, mitigated and relevant learnings communicated.

Records to be retained

- Incident investigation reports incl. near-misses
- Preventive Action defined to avoid recurrence
- Internal communication on lessons learned
- Reports extracted from incident investigation documents
- Newsflash

XIV. Emergency Planning & Response

XIV.1 Plans, procedures and resources must be available to effectively respond to emergency situations in order to protect the workforce, environment, the public and customers, and to preserve the DCICO Group assets and reputation.

XIV.2 Systems must be in place to identify potential emergency scenarios and their likely impact, including those on nearby operations and communities.

XIV.3 Emergency response plans, crisis management plans as well as business continuity/disaster recovery plans must be aligned.

XIV.4	Emergency response plan(s) must be appropriately communicated to all affected employees, contractors, and to all visitors and other relevant third parties.
XIV.5	Resources, including equipment and warning/alerting devices, required for emergency response and recovery activities must be available, maintained, and tested.
XIV.6	Emergency response preparedness simulations and drills must be scheduled, carried out and evaluated. Emergency plans must be updated based on evaluation and lessons learned.
Records to be retained	<ul style="list-style-type: none"> > Evaluation report of an emergency drill > Report on emergency response > Annual training plan for emergency response team/unit > Maintenance/test records of emergency equipment

XV. Assurance & Audits

XV.1	DCICO Group level, Business level and company level HSE (including Process Safety Management) performance must be monitored, evaluated and reported in a way that it must be verified both within the company and externally. Performance must be periodically evaluated and improved.
XV.2	A documented risk based Group Audit Program must be established to evaluate progress toward HSE targets, regulatory compliance and effectiveness of the management system.
XV.3	Compliance with relevant legal HSE requirements must be assessed regularly.
XV.4	Auditors must have appropriate qualification and experience in auditing.
XV.5	Findings from lessons learned processes (e.g. behaviour observation, audits, incident investigations, near-misses, etc.) must be prioritized, implemented, followed-up and shared with all interested parties in DCICO Group.
XV.6	HSE Due Diligence must be performed before any company acquisition, divestiture or merger. Such HSE Due Diligence must identify risks and potential costs related to all HSE issues at the company concerned. Records must be retained.
XV.7	Companies must conduct self-assessments to declare the extent of their conformance with this HSE Management System.
XV.8	Regular management reviews (e.g: HSE Committee Meeting, HSE Business Review) must be conducted. Records of management reviews must be retained.
XV.9	Businesses/Operations where Process Safety Management (PSM) is relevant must implement a PSM self-assessment system defined in written procedure and must prepare PSM self-assessment plan which ensures that each hazardous process will receive a self-assessment at least once within three years.
XV.10	PSM self-assessments must address local laws and regulations relative to PSM and assess system implementation, performance, and system effectiveness in each process unit.
XV.11	PSM compliance audit system must exist on DCICO Group level. PSM compliance audit must be done by internal or external resources to ensure independent verification of PSM implementation.

XV.12 Findings from audits must be documented, tracked and resolved within the required deadline.

- > Results of periodic compliance evaluation
- > Audit reports
- Records to be retained**
 - > Annual Group level and local Audit Plan
 - > Self-assessment reports
 - > PSM Self-assessment reports
 - > PSM relevant records
 - > PSM audit reports

XVI. Social Impacts

XVI.1 Implementation of the following expectations must be ensured at site level. Site level compliance can be fulfilled with individual plans/systems or can be covered by higher (e.g. company, country) level systems. The expectations are different in project development, operational and abandonment phases.

Project development and abandonment phase:

Assessments must be performed for investments and for abandonments:

XVI.2 Social impacts in proposal phase: social impact survey/estimation must be part of new project (including significant extensions) and field abandonment proposals. It must be decided if preparation of Social Impact Assessment is necessary.

Social Impact Assessment (SIA) (may be integrated part of Environmental Impact Assessments):

- a. SIA must include (1) baseline assessment (only in development phase), (2) identification of risks of operations and
- XVI.3** b. SIA must clearly decide if a risk management plan is necessary or impact monitoring is sufficient.
- c. SIA must be prepared in line with local legislation.
- d. Relevant sections of Social Engagement Handbook of DCICO Group must be taken into account during its elaboration.

Plan for management and mitigation of risks: At least the following negative impacts must be assessed and managed:

- XVI.4** a. Impact on health, safety and general living conditions of the local communities – any disproportionate negative impact must be avoided;
- b. Resettlement of local communities – involuntary resettlement (physical and economic) must be avoided in all reasonable cases;
- c. Impact on indigenous people – prior and informed consent of such groups must be gained;
- d. Impact on cultural heritages, traditional landscapes.

In operational phase the following must be in place

Grievance management system: Community engagement and grievance management must be ensured through

- XVI.5** a. Meetings and consultations with adequate frequency;
- b. Through appointed focal points (e.g. community relationship officers and/or HSE advisors);
- c. Nomination of one company representatives responsible for negotiations with local communities;
- d. Grievance register and management system: offering the possibility of reporting of grievances, ensuring their investigation and management.

Social impact management: community relations and issues must be continuously assessed and evaluated. At least the following aspects must be taken into consideration:

- XVI.6**
- a. Identification of key stakeholder groups and key stakeholders;
 - b. Identification of key issues by stakeholders;
 - c. Grievance management and reporting of results;
 - d. Above described tasks must be implemented in line with the Social Engagement Handbook of DCICO Group.

Local social engagement plan: It must be ensured that both governments and local communities benefit from our operations through the following:

- XVI.7**
- a. Social investment activities considering DCICO Group corporate giving principles and local development priorities – on less developed areas focusing on basic (infrastructural) needs, on more developed areas a broader variety of support should be considered;
 - b. Education of locals and employing local experts;
 - c. Contracting local suppliers and building capacities through local supply chain initiatives in line with local procurement principles);
 - d. Contributing to local development programs as required by governments.

- Records to be retained**
- > Social Impact Assessments
 - > Plan for mitigation of social impacts
 - > Stakeholder engagement strategy including stakeholder map (annually updated)
 - > Social investment plan
 - > Grievance records

ANNULMENTS

All below regulations are annulled by the effective HSE MS regulations, as of 3 February 2018.

ID	TITLE (TYPE OF REGULATION)	VERSION NO.	DATE OF EFFECT
HSE_1	Health, Safety and Environment Management System (Group Guideline)	1	07.08. 2008
HSE_1_G3.1.1	HSE Competencies & Training (Global Operative Regulation)	1	30.09.2008
HSE_1_G4.1.1	HSE Target Setting & Planning (Global Operative Regulation)	1	01.09.2008
HSE_1_G9_1.1	Waste Management (Global Operative Regulation)	1	01.04.2009
HSE_1_G9_2.1	Greenhouse Gas (GHG) Management (Global Operative Regulation)	2	01.12.2011
HSE_1_G9_3.1	Risk based environmental remediation (Global Operative Regulation)	1	01.04.2009
HSE_1_G10_1.1	HSE Document and Record Control (Global Operative Regulation)	1	01.12.2008
HSE_1_G11_1.1	Product Stewardship (Global Operative Regulation)	1	01.12.2008
HSE_1_G12_1.1	HSE Communication and Consultation (Global Operative Regulation)	1	01.04.2009
HSE_1_G15_1.1	HSE Audits (Global Operative Regulation)	1	30.09.2008
HSE_1_G15_2.1	HSE Self-assessments (Global Operative Regulation)	1	01.12.2008
HSE_1_G15_3.1	HSE Performance Monitoring & Reporting (Global Operative Regulation)	2	30.09.2011.



GLOSSARY

TERM	DEFINITION
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR	International Carriage Of Dangerous Goods By Road
Assessment	A systematic and documented review of the effectiveness of implementation of HSE processes, programs and process regulations based on general process criteria and the professional judgment of experienced assessors.
Audit	A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the management systems audit criteria set by the organisation are fulfilled.
CAPEX	Capital expenditure
Change	A deviation, either permanent, temporary, or incremental, from a currently established baseline, or anything that is or may be substituted for something else. This includes changes to personnel, processes, systems, plant and equipment, technology, documents, risks, legislation, commitments, obligations, other requirements, and external environmental, physical and social factors affecting or affected by the organisation.
Closure	The process and activities related to the cessation of the operating life of an operation following a decision to close the operation which ends following abandonment, decommissioning, rehabilitation and, if required, remediation.
CLP	Regulation on classification, labelling and packaging of substances and mixtures.
COCA	Company Owned Comission Agent
CODO	Company Owned Dealer Operated
Controlled HSE documents	Documents pertinent to effective HSE MS planning, operations and risk control and exist to ensure continual improvement.
Corrective action	Action designed to correct an undesirable HSE problem or defect in the management system. Examples may include breakdown of controls, non-conformance with DCICOor regulatory requirements, accident, injury, illness, fire, release to the environment or other HSE-related loss, undesirable trends in HSE metrics, etc.
Dangerous good	Transported goods categorized by ADR that have the potential to pose a significant risk to the health and safety of people or the environment.
Decommissioning	Planned shut-down or removal of a building, equipment, plant, etc., from operation or usage
Documents	Structured units of recorded information, published or unpublished, in physical or electronic form, managed as discreet units in the HSE management system. Most records are documents; but not all documents are records. A document becomes a record when it is part of a business transaction, is kept as evidence of that transaction and is managed within a record keeping system.

TERM	DEFINITION
DODO	Dealer Owned Dealer Operated
Emergency	An abnormal occurrence that can pose a threat to the safety or health of employees, customers, or local communities, or which can cause damage to assets or the environment.
Emergency drill	An exercise intended to train people in duties and escape procedures to be followed in case of emergency.
ENVID	Environmental impacts and risks identification is a commonly used methodology for systematic and structured environmental and social impact and risk assessment at different project stages and during operations.
Environment	Surroundings in which DCICO Group operates, including air, water, land, soil, natural resources, flora, fauna, habitats, ecosystems, biodiversity, humans (including human artefacts, culturally significant sites and social aspects) and their interaction. The environment in this context extends from within an operation to the global system.
Fatality	Death resulting from work related injury or occupational illness, including the fatalities due to accidents caused to third parties. Company employees, contractor employees and 3 rd parties to be planned/reported separately. At Group level 3 rd party fatalities will not be reported externally.
Fire	An unplanned combustion. It includes electrical arcs that also involve a subsequent fire or evidence of combustion (flame, smoke or charring).
GHG – Greenhouse Gases	The atmospheric gases responsible for causing global warming and climate change. The major GHGs are carbon dioxide (CO ₂), methane (CH ₄) and nitrous oxide (N ₂ O). Less prevalent –but very powerful– greenhouse gases are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF ₆). Reported as CO ₂ equivalent.
GHS	Globally Harmonised System of Classification and Labelling of Chemicals. The GHS is a United Nations system to identify hazardous chemicals and to inform users about these hazards through standard symbols and phrases on the packaging labels and through safety data sheets
Harm	A significant and/or long-lasting adverse impact on people, the environment or the community.
Hazardous materials	Substances that have the potential to pose a significant risk to the health and safety of people or the environment.
Hazardous process	Undesired, dangerous release of materials or energy (e.g., toxic or corrosive discharges, fires, and explosions) with potential for causing serious injury to people and/or significant property or environmental damage
Hazardous waste (HW)	Waste featuring one or several hazardous characteristics listed in the local applicable legislation. In DCICO Group HW is categorized according to source of waste production: a) arising from normal operation b) emergency events c) resulting from construction/demolition d) from past operations.
Hazards	Source or situation with a potential for harm in terms of injury or illness, damage to property, damage to the environment, or a combination of these.

TERM	DEFINITION
HiPo (High potential incident)	An incident (including near-miss) with consequences categorized as PEAR 3 or lower, that could have potentially resulted in consequences categorized as PEAR 4-5, or PEAR 3 if happened several times a year in the same DCICO Group Company.
HSE	Health, Safety and Environment
HSE Assurance Letter	This process is a key component of HSE Governance. It is conducted annually and requires sites /subsidiaries to complete an assessment of HSE performance using the Self Assessment tool. The process is aimed at measuring and recording HSE MS process maturity at organisational level. Any deviations identified as a result of completing self assessments are then tracked to closure via corrective actions.
HSE Behaviours	Those behaviours that are expected to result from effective implementation of the organization's HSE MS. This includes the behaviours of employees, all levels of leadership, contractors and other non-employees with access to DCICO operations.
HSE Documents	HSE related documents, either electronic or paper (e.g. procedures, work instructions, checklists, training tools, etc.) developed and implemented to provide HSE direction, guidance and requirements and ensure organisations operate in a safe manner and in compliance.
HSE Impacts	Any change that has adverse or beneficial effects on health, safety or the environment resulting from the organization's aspects. Some examples of impacts include toxic effects from exposure to chemicals, asphyxiation from confined spaces, resource depletion from energy usage, pollution from air emissions, and environmental release during product distribution.
HSE Liability Assessment	The process of revealing HSE non-compliances of DCICO Group and assessment of expenditure need related to solving the revealed HSE non-compliances.
HSE Non-compliance	A non-fulfilment of a requirement of a) HSE MS, policy, operational regulation and b) HSE related laws, legislation
Impact	Any change to the health and safety of people, the environment, the community or property, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services.
HSE Incident	An unplanned event or chain of events that has, or could have, resulted in injury or illness or damage (loss) to assets, the environment or company reputation. Incidents do not include operations, maintenance, quality or reliability incidents which had no HSE consequence or potential.
Induction training	HSE Training provided to new employees by the employer in order to get familiar with all necessary HSE requirements and risks before starting work individually
KPI	Key Performance Indicator
MAC	Manager Appointed for Control: Dedicated manager, who has bottom-line responsibility for a given company where DCICO Group has ownership
Management of change (MOC)	The systematic process for dealing with changes to manage HSE risk.

TERM	DEFINITION
MS	Management System
Near-miss	A near-miss is an incident which potentially could have caused injury or occupational illness and /or damage (loss) to people, assets, the environment or company reputation, but which did not.
NGO	Non Governmental Organization
Observation	A systematic, independent and documented process for recognition of Unsafe Acts and Unsafe Conditions during execution of the regular jobs by employees.
OpCo	Operating Company
OPEX	Operational expenditure
PPE	Personal Protective Equipment. All equipment (including clothing) which is intended to be worn or held by a person at work and which protects him against one or more risks to his health or safety (e.g. safety helmets, gloves, eye protection, high-visibility clothing, safety footwear).
Practical training	An HSE training in which participants are actively involved, they perform different HSE related training activities and learn by doing besides listening.
Preventive Action	An action designed to prevent or reduce the probability of occurrence of an undesirable HSE incident such as the breakdown of controls, non-conformance to DCICO or regulatory requirements, accident, injury, illness, fire or other HSE related loss, etc.
Procedure	A formal and documented combination of methods, steps and actions established by an organization to achieve specific results, behaviour or activity.
Process	Any activity or set of related activities (including storage, manufacturing, use, handling, on-site transfer) and the associated equipment and technology.
Process Safety Incident/Event	Any unintended release of material or energy (e.g fire, explosion, implosion, LOPC) from production, distribution, storage or utility processes, excluding (1) truck or rail operations when the truck or rail car is not connected to the process; (2) on-site fuelling/refilling operations of vehicles and stationary equipment; (3) retail fuel stations; (4) pilot plants and laboratories
PSM	Process safety management. Application of a management system and controls (programs, procedures, audits, evaluations) to a manufacturing or chemical process in a way that process hazards are identified, understood, and controlled so that process-related injuries and incidents are prevented.
PSSR	Pre-startup safety review - a final checkpoint for new and modified equipment to confirm that all appropriate elements of process safety management have been addressed satisfactorily and the facility is safe to start up.
Product stewardship	Product stewardship is a concept whereby health and environmental protection centres around the product itself, and everyone involved in the life-cycle of the product is called upon to take up responsibility to reduce its health and environmental impact.

TERM	DEFINITION
Reference document	Any document providing recommendations and support for HSE Management System users to implement MS expectations and requirements in practice. Reference documents include but are not limited to the following: Compliance checklists; Recommended practices; Best practices; Templates; Process methodologies; Training materials, etc.
RID	European Agreements Concerning the International Carriage of Dangerous Goods by Rail
HSE Risk	Combination of the likelihood and consequence(s) of a specified hazard occurring undesirable HSE event.
Risk Assessment (HSE)	A systematic approach used to determine the degree of risk or vulnerability associated with identified hazards.
Safety Data Sheet (SDS)	Safety data sheets are the main tool for ensuring that suppliers communicate enough information along the supply chain to allow safe use of their substances and mixtures. They include information about the properties of the substance (or mixture), its hazards and instructions for handling, disposal and transport and also first-aid, fire-fighting and exposure control measures.
SCC	Safety Checklist Contractors
SIA	Social Impact Assessment
Site	Geographically separated operational installation
Spills	Unintended or uncontrolled release of hazardous materials to the external environment (groundwater, surface/sea water, soil), not inclusive of any released volume retained within secondary or other confinement. Substitute – replacing the material or process with a less hazardous one
Targets	Detailed goals identified by an organisation as being necessary to achieve HSE strategic objectives. Targets are usually short term and achievable within a year and carry the most weight when integrated into the organisation's annual Business Plan. All targets should be realistic.
Unsafe Act (UA) and Condition (UC)	UA: a behaviour which increases unnecessary the risk for injury, damage or loss; UC: which could lead to injury, damage or loss if not corrected.
Visitor	A person visiting DCICO site, who is not a DCICO Group employee or contractor at that site.
VOC	Volatile Organic Compound

LIST OF MODIFICATIONS

VERSION NO.	DESCRIPTION OF CHANGE	DATE OF EFFECT
3.	<p>New version of Group Guideline represents the following changes</p> <ul style="list-style-type: none"> ➤ it is integrated with elements of existing Process Safety Management System ➤ it identifies the requirements with other principles of standard based HSE management systems (ISO 14001) ➤ New Guideline element was defined: the Social Impacts element (Element XVI) 	01/02/2019



TABLE AMONG DCICO GROUP HSE MANAGEMENT SYSTEM, PSM, ISO 14001

HSE MS ELEMENT	PSM	ISO 14001 STANDARD	OHSAS 18001 STANDARD
HSE Policy	Not defined	4.2. Environmental policy	4.2. OH&S Policy
1. Leadership, Commitment & Accountability	Specifically not defined (expectations defined as Area Management requirements – see PSM compliance checklist)	..partly in.. 4.4.1. Resources, roles, responsibility and authority	..partly in.. 4.4.1. Resources, roles, responsibility, accountability and authority
2. Risk & Change Management	3. Process Hazard Analysis 4. Management of Technology Change 8. Management of Subtle Change 12. Management of Pers. Change	4.3.1. Environmental aspects	4.3.1. Hazard Identification, Risk Assessment and determining controls
3. Competence, Training & Awareness	9. Training and Performance	4.4.2 Competence, training and awareness	4.4.2. Competence, training and awareness
4. Planning & Targets	Specifically not defined (expectations defined as Area Management requirements – see compliance checklist)	4.3.1 Environmental aspects 4.3.3. Objectives, targets and programme(s)	4.3.1. Hazard Identification, Risk Assessment And determining controls 4.3.3. Objectives and programme(s)
5. Contractor HSE Management	10. Contractor Safety & Performance	N/A	..from different aspects in.. 4.3.1. Hazard Identification, Risk Assessment And determining controls 4.4.6. Operational control 4.5.1. Performance measurement and monitoring
6. Design, Construction, Commissioning & Decommissioning	5. Quality Assurance 6. Prestart-up Safety Review	partly in section: 4.3.1 Environmental aspects	partly in section: 4.3.1. Hazard Identification, Risk Assessment and determining controls
7. Safe Operation & Work Practices	2. Operating Procedures & Safe Work Practices 7. Mechanical Integrity	4.4.6. Operational control	4.4.6. Operational control
8. Health Protection & Promotion	Partly in 9. Training and Performance	N/A	as implementation of 4.3.3. Objectives, targets and programme(s)



HSE MS ELEMENT	PSM	ISO 14001 STANDARD	OHSAS 18001 STANDARD
9. Environmental Management	Not defined	4.3.1. Environmental aspects as implementation of 4.3.3. Objectives, targets and programme(s)	N/A
10. Requirements, Information & Documentation	1. Process Safety Information	4.3.2. Legal and other requirements 4.4.4. Documentation 4.4.5. Control of documents	4.3.2. Legal and other requirements 4.4.4. Documentation 4.4.5. Control of documents
11. Product Stewardship	Not defined	as implementation of 4.3.3. Objectives, targets and programme(s)	as implementation of 4.3.3. Objectives, targets and programme(s)
12. Communication & Consultation	Specifically not defined (expectations defined as Area Management requirements – see compliance checklist)	4.4.3. Communication	4.4.3. Communication, participation and consultation
13. Incident Reporting & Investigation	11. Incident Investigation & Reporting	4.4.7. Emergency preparedness and response	4.5.3. Incident investigation, non-conformity, corrective action and preventive action 4.5.3.1. Incident investigation
14. Emergency Planning & Response	13. Emergency Planning & Response	4.4.7. Emergency preparedness and response	4.4.7. Emergency preparedness and response
15. Assurance & Audits	14. Auditing	4.5.1. Monitoring and measurement 4.5.3. Nonconformity, corrective action and preventive action 4.5.5. Internal audit 4.6. Management review	4.5.1. Monitoring and measurement 4.5.3. Incident investigation, Nonconformity, corrective action and preventive action 4.5.5. Internal audit 4.6. Management review
16. Social Impacts	Not defined	4.3.1. Environmental aspects 4.3.3. Objectives, targets and programme(s) as implementation of 4.3.3. Objectives, targets and programme(s) 4.4.3. Communication 4.4.6. Operational control	4.4.3. Communication, participation and consultation 4.4.6. Operational control

NOTES

