

SHEOS.first@qenos

Safety, Health and Environment Operating System



Shaping Our Future

SHEOS.first@qenos



Our business wide Safety, Health and Environment Operating System (SHEOS) brings together key elements from international best practice systems. This ensures Qenos is a leader in safety, health and environment performance standards in Australia.

Qenos is committed to conducting business in a manner that:

- Protects the safety and health of our
 - Employees
 - Contractors
 - Suppliers
 - Customers
 - Community
- Is compatible with the environmental and economic needs of the community

Meeting these commitments requires a systematic approach to:

- Identifying and managing safety, health and environmental risks
- Complying with all applicable laws and regulations
- Designing and operating facilities at the highest standards

SHEOS is that systematic approach. This brochure provides an overview of SHEOS and introduces some of its Operating Practices. It explains how SHEOS acts as an umbrella covering all parts of our business including manufacturing, administration, laboratories and distribution centres.

Our commitment to SHEOS is real and our processes are transparent.

***Safety,
Health and
Environment
Operating
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SHEOS

What is it?

Drawing on the strength and integrity of generations of safety, health and environmental experience, the SHEOS (Safety, Health and Environment Operating System) system is comprehensive and purpose-built for the unique sites operated by Qenos.

SHEOS aims to achieve core Qenos objectives. These are to:

- Prevent incidents that harm people and the environment
- Comply with applicable laws and regulations
- Be a leader in safety, health and environmental performance

SHEOS is designed to deliver performance that meets our:

- Employees' interests
- Community concerns
- Business requirements
- Industry codes
- Regulators' requirements.



SHEOP's

What are they?

The SHEOS system is based on specific requirements or "practices". There are 21 Safety, Health and Environment Operating Practices (SHEOPs) divided into groups according to the type of activity they cover.

There are five set characteristics for every SHEOP:

Scope and Objectives

- Scope defines the system's boundaries, interfaces with other systems, operations, facilities and organisations and its SHEOP requirements.
- Objectives clearly define the system's purpose and expected result.

Procedures

- All procedures must be documented. They must address the process steps that describe what the system does, how it functions and tasks required by the system.

Responsible and Accountable Resources

- Approval authorities, experience and training requirements that qualify people to carry out their roles and responsibilities must be clearly specified.

Verification and Measurement

- These processes determine if systems function as designed and achieve desired results. This includes two phases:
 - One verifies processes and procedures are functional and are executed effectively
 - The second addresses process or activities measures and achievement of objectives or results.
- Verification is linked to the process steps and system tasks
- Measurement is linked with the system objectives and process outputs

Feedback Mechanisms

- Feedback continuously improves a system's capability and effectiveness. These mechanisms follow up on findings from verification and measurement and improve system capability and effectiveness.

These five characteristics must be documented as part of each system's description. The extent to which each system is properly designed, documented and deployed; the degree to which execution of the system conforms to its requirements, quality of execution and the extent to which objectives are achieved, are all assessed.

SHEOPs

How do they work?

Objectives

SHEOS consists of 21 Safety, Health and Environment Operating Practices (SHEOPs) and has three objectives:

- Prevent incidents that harm people and the environment
- Comply with applicable laws and regulations
- Make Qenos a leader in safety, health and environmental (SHE) performance.

The SHEOPs are briefly outlined here for your information. Numerical references to the Operating Practices are provided for convenience.



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SHEOPs

How do they work? continued ...

Leadership, Management, Commitment and Accountability - SHEOP 1.1

SHEOS requires training, education and commitment on the part of all employees.

It begins, however, with management, from our Chief Executive Officer to our Team Leaders. Management sets policy and expectations and provides the resources necessary to meet the objectives.

To reinforce commitment and encourage employee involvement, management support is visible and active.

Performance is measured and stewarded, accountability clearly defined and unfavorable deviations addressed.

Risk Analysis Assessment and Management - SHEOP 2.1

Assuring that risks are identified and understood is critical. Controls put in place are based on the degree of risk. This SHEOP is a prerequisite for implementation of all other practices.

Facilities Design and Construction - SHEOP 3.1

This SHEOP covers projects from design to start-up controlling hazards associated with new facilities.

Design standards form the basis of process and facility design. Ergonomic needs of personnel along with ways to reduce the risk of human error are considered in the design phase.

Process and Facilities Information/Documentation - SHEOP 4.1

Since many hazard reviews are done with detailed drawings, design data and equipment records, this documentation must be accessible, accurate and up-to-date.

This SHEOP sets information requirements for records such as previous studies, past inspection reports, properties and hazards of materials, health and exposure data and applicable industrial codes.

Physical aspects of design and possible consequences of failure of equipment or procedures are considered. Safety, industrial hygiene and environment risk reviews are carried out. Inspections throughout every project and complete pre-start-up reviews are conducted.

Personnel Safety - SHEOP 5.1

This SHEOP focuses on the interface between people and their work environment. Systems are established to actively monitor behavior and workplace conditions and to take steps to prevent potential injuries.

Safety rules, ensuring employee awareness of hazards, safety analysis of specific job tasks, proper use of protective equipment and employee recognition are all important aspects of this SHEOP.

Health - SHEOP 5.2

This SHEOP requires Qenos to maintain the highest standards in protecting the health of employees and others involved in our activities or products.

Potential health hazards are identified and evaluated, measures to control exposure are implemented and important information is communicated.

Personnel - SHEOP 5.3

This SHEOP deals with the selection and placement of employees, maintaining standards, encouraging performance improvement and ensuring that knowledge and experience are maintained, especially during personnel changes.

Training - SHEOP 5.4

All people working on every Qenos activity must be thoroughly familiar with the safety, health and environmental aspects of their job. Employees are trained and qualified before they begin work and receive periodic refresher training as required.

Operations and Maintenance Procedures - SHEOP 6.1

Effective procedures that are followed by qualified personnel are essential. This SHEOP requires systems to ensure that operating and maintenance procedures are developed, effective and consistently used.

Work Permits - SHEOP 6.2

Obtaining work permits and the training needed to ensure that equipment is properly prepared and that jobs are planned and performed with out incident are covered by this SHEOP.

Inspection and Maintenance - SHEOP 6.3

This SHEOP sets requirements for inspection and maintenance of facilities and equipment. Inspections are set at defined intervals based on risk. Systems are in place to ensure that preventive maintenance is performed and inspection findings are addressed.



SHEOPs

How do they work? continued ...

Critical Systems and Devices - SHEOP 6.4

Some systems depend on instruments or other special devices to protect against incidents. This SHEOP sets the requirements for maintaining the reliability of these devices as well as precautions when these devices are removed for maintenance or repairs.

Pollution Prevention - SHEOP 6.5

This SHEOP calls for systems to manage emissions and waste in a safe and environmentally sound manner. Qenos works to reduce wastes and emissions. When business priorities are set, community concerns and potential environmental impacts are considered.

Regulatory Compliance - SHEOP 6.6

Qenos is committed to complying with all relevant legislation. This SHEOP provides systems to ensure legal and regulatory requirements are satisfied.

Product Stewardship - SHEOP 6.7

This SHEOP sets the requirements for characterising and managing product risks, including providing customers and distributors with information, guidance and encouragement for the proper use, transportation and disposal of all Qenos products.

Management of Change - SHEOP 7.1

Qenos systems, organisations and facilities are designed with the highest degree of integrity. Before they are changed, this SHEOP requires a thorough review to ensure that safety, health and environmental elements of design are not compromised.

Third-Party Services - SHEOP 8.1

The requirements for selecting, monitoring and following up on third party services are clearly documented. Contractors are assessed on their capability to perform services in a manner that protects the health and safety of people and the environment.

Incident Reporting, Analysis and Follow-up - SHEOP 9.1

This SHEOP is vital to determine how we improve our systems. It requires reporting, investigating, analysing, documenting and following up on all safety, health and environmental incidents and near-incidents.

Emergency Preparedness - SHEOP 10.1

This SHEOP sets the requirements for ensuring all necessary actions are taken to protect personnel, contractors, the public, the environment and property in the event of an incident. Emergency response plans are kept current and response teams are drilled to handle emergencies.

Community Awareness - SHEOP 10.2

This SHEOP requires Qenos to recognise and address employee and public concerns and expectations about the safety of our operations, potential health effects of chemicals, workplace safety, waste and releases to air, water and land, transportation of chemicals, emergency response plans and products.

Assessment and Improvement - SHEOP 11.1

The activities that satisfy the SHEOS requirements are themselves in a state of continuous improvement. Systems are regularly reviewed and evaluated to ensure effectiveness and identify areas for improvement throughout Qenos.



ASSESSING PERFORMANCE

Implementation and Performance Indicators

Types of Measurements

Three processes are used to measure implementation and performance progress and to identify improvement steps.

Performance Indicators - Tier 1

The first, which includes leading indicators such as risk assessment follow-ups, number of safety talks conducted, number of safety and housekeeping surveys conducted, compliance checks on change management processes - monitors system performance. Output measures - such as number and severity of accidents, emissions, industrial illnesses, fires, hazards eliminated, observations of actual safe behaviour - measure results. Some of these are also used as leading indicators.

Site Self-Assessment - Tier 2

The second measurement process is an annual in-depth site self-assessment to confirm implementation status and effectiveness of SHEOPs. These assessments check the

- Completeness of system design and documentation
- Degree to which the system addresses relevant requirements and potential risks
- Conformance with system requirements
- Quality of system execution and achievement of desired objectives.

Independent Team Assessment - Tier 3

The third process is an assessment of SHEOP implementation status and effectiveness conducted by independent teams. The primary purpose is to validate the self-assessments and promote conformance with standards.



Rating System

Independent and self-assessments produce a rating for implementation and effectiveness for each SHEOP and recommend system improvements. The rating is based on a point scale. The rating reflects the system's effectiveness and status. Each level is defined here.

System Status Level and Effectiveness

Level 1 - A documented system is being developed to address potential operational hazards and improve performance. Execution does not always conform to requirements. Quality of execution needs improvement. Some objectives are being achieved with only minor improvement needed and resourced.

Level 2 - The five characteristics of the Operations System are documented, approved and resourced. Deployment is under way. Key procedures, based on risk, are documented, others are identified and under development. Execution conforms to the important requirements. Quality of execution is acceptable. Most objectives are being achieved.

Level 3 - The system is deployed in the organisation. All procedures for tasks are documented. Verification and measurement are ongoing. Execution conforms to the important requirements and most other requirements. The quality of execution is good. Most objectives are being achieved with only minor improvement needed and resourced.

Level 3.5 - The system is in place and satisfies all requirements. The system and activities are mature and supported by demonstrated continuous improvement. It is controlling priority and achieving most objectives. At least one feedback review and continuous improvement cycle is completed.

Level 4 - The system is mature, having undergone at least one feedback, review and improvement cycle. Revisions to system documentation have been made, if required. System execution conforms to essentially all requirements. Quality of execution is excellent. Essentially all objectives are being achieved.

The objective is to reach Level 4 implementation where all systems are complete and in a continuous improvement process.

SHE Stewardship Parameters

The SHEOP rating level is an important stewardship parameter, but it is only one of several routinely stewarded by each site manager. Qenos also annually reviews SHE performance and plans with the Qenos Board.

Cnr Kororoit Creek Road and Maidstone Street Altona Victoria 3018

Phone 61 3 9258 7333 Fax 61 3 9369 6624 www.qenos.com

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