

Quality & Safety Manual

Revision 4 05- Aug-2010

Purpose:

This Quality & Safety Manual is intended to clarify and document the Quality and Health & Safety policies of **GGG Oil and Gas Systems** and to describe how the organization organizes its activities and processes, prepares and executes them, in order to comply at all stages of the process with the requirements of the ISO 9001:2008 and the OHSAS 18001:2007 standards.

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1. **GGG Oil and Gas Systems– A Brief History**

GGG Oil and Gas Systems, before Global Gas Solutions, is a relatively young innovative company, however built on many years of experience.

Management as well as engineers and commissioners can rely on many years of good service in the industry, working for well recognised market leaders in the field of equipment construction and installation for our main markets.

The main task of our company is to serve customers with reliable solutions for custody or non custody fluid measurement, filtration and or pressure reduction in the energy sector as well as project management and engineering in the gas and (petro)chemical industry.

GGG supports the customers with engineering (mechanical, electrical and instrumentation, software PLC and or supervisory), project management, site supervision, start-up and commissioning, etc... to cover the complete line of support and even more, GGS is able to perform complete turnkey projects.

The main goal of GGS is to built a long term relationship with customers all over the world based on trust and technical strength. Know-how, flexibility and integrated quality control guarantee fast and tailor-made job, specific according to your needs

GGG is doing the utmost to become a monument in the international custody fluid transfer and to grow on the trust and respect of many international engineering companies and end-users.

2. **Our Vision**

The main goal of GGS is to supply high quality **service and solutions** to our customers in multi- disciplinary engineering and project management support, onsite commissioning activities, **consultancy and training services**, construction, and supervision till complete turn key projects in the natural gas and petrochemical industry. **Recently our goal was broadened, this based on our wide experience, GGS started with the manufacturing of their own flow computer, filter and ultrasone flow metering system.**

GGG is a flexible and multidisciplinary team of engineers with long years of experience in the natural gas and petrochemical industry.

In order to serve the needs of our clients in the best possible way, we handle every project as per requirement of the client, depending on what kind of support or delivery is required. In doing this, we know and respect laws and regulations which may bear on our products or our organization.

Because GGS works as an independent entity the selection of equipment used in the project will only be based on specifications and requirements of the client and not on a product scope of the company.

Every project will be handled by a dedicated project team of specialists and project manager. This setup provides the best results and efficiency. GGS believes that in every successful project the keyword is “communication”.

Clear external communication towards customers and equally important the internal communication in the project team are essential for a successful project.

The quality management system described further in this handbook is a prime tool to organise and manage what we described in this quality policy and a token of our commitment towards our customers, external parties and employees, and towards continual improvement.

It will guarantee, through its implementation, the accomplishment of our quality policy and compliance with the international ISO 9001:2008 Standard.

In terms of Health & Safety, we have formulated our policy as follows:

GGG is committed to prevent the accidental loss of any of its resources, including employees and physical assets.

In fulfilling this commitment to protect both people and property, management will provide and maintain a safe and healthy work environment, in accordance with industry standards and in compliance with legislative requirements, and will strive to eliminate any foreseeable hazards which may result in property damage, accidents, or personal injury/illness.

We recognize that the responsibility for health and safety are shared. All employees will be equally responsible for minimizing accidents within our facilities and on our work sites. Safe work practices and job procedures will be clearly defined in the company’s Health and Safety Manual for all employees to follow.

Accidental loss can be controlled through good management in combination with active employee involvement. Safety is the direct responsibility of all managers, supervisors, employees, and contractors.

All management activities will comply with company safety requirements as they relate to planning, operation and maintenance of facilities and equipment. All employees will perform their jobs properly in accordance with established procedures and safe work practices.

We trust that all our employees will join us in a personal commitment to make safety a way of life.

Peter Himschoot

Karl Aerts

3. Scope and Purpose

The Management System (MS) described in this manual covers all activities of **GGG**:

Industrial services, including: (detail) engineering, construction, **manufacturing** and commissioning of mechanical and electrical instrumentation installations, industrial automation and project management. **Consultancy and training in above fields.**

The scope of this document covers the ISO 9001:2008 quality standard as well as the OHSAS 18001:2007 standard. This manual, together with the procedures mentioned in the manual, provides guidance in maintaining full conformity with the requirements of these International Standards.

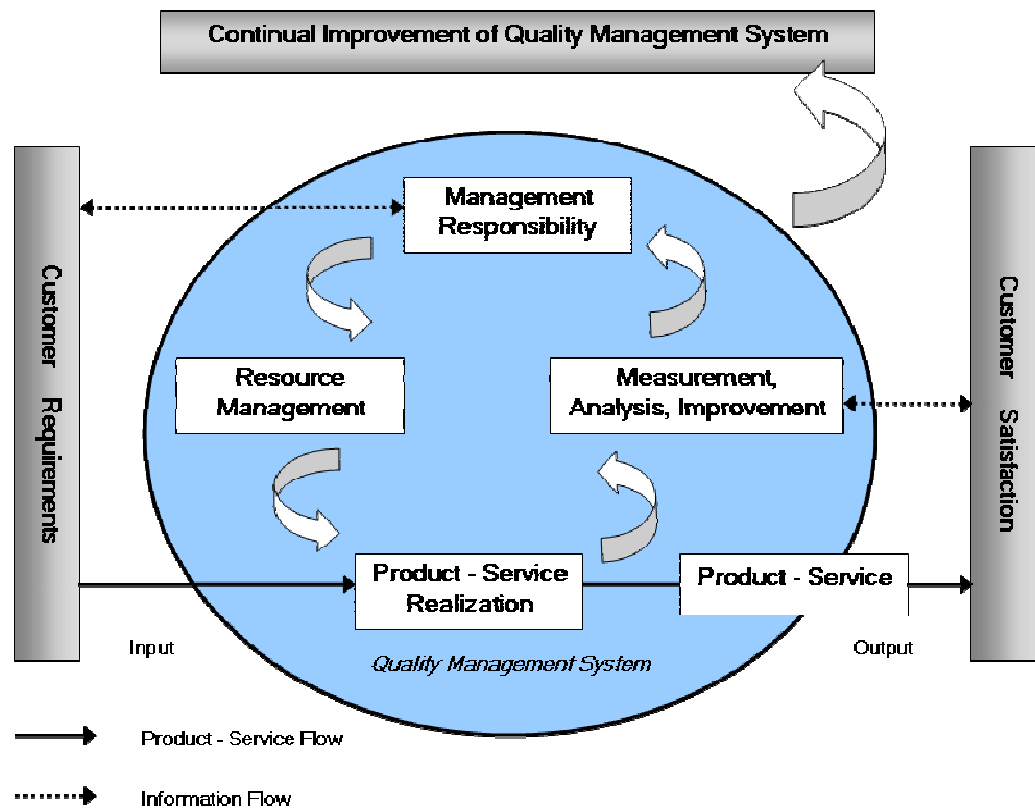
Sections 7.3. and 7.5.2. of ISO 9001:2008 are not applicable to this MS, and have been excluded from the scope, since:

- a) **GGG** does not develop products, but restricts its activities to engineering known and existing products and components (Par. 7.3.).
- b) The output of all processes can be verified (Par. 7.5.2.)

4. Management System

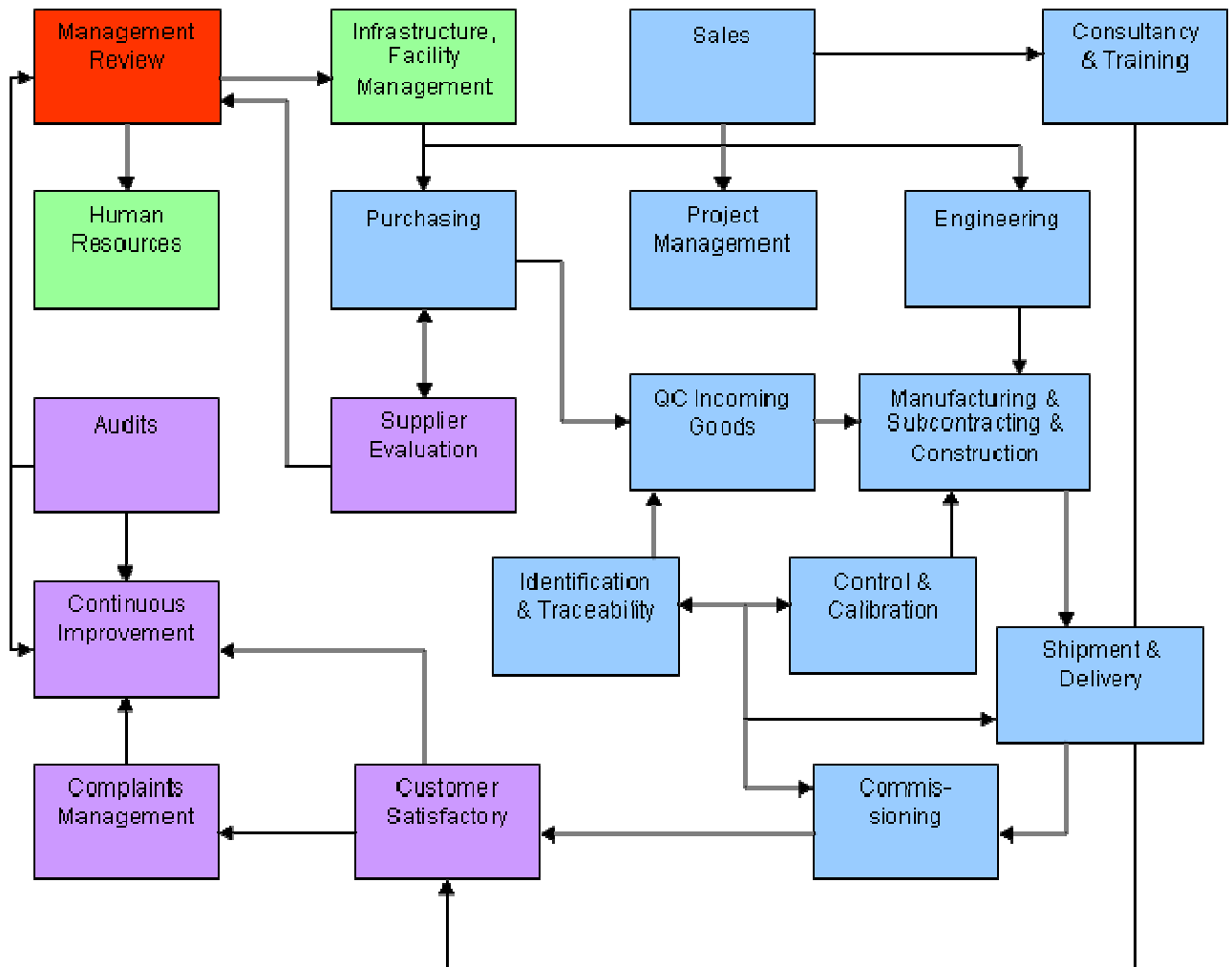
4.1. General Requirements

GGS has established, implemented, maintains and continually improves a Management System (MS) in accordance with the requirements of the International Standard ISO 9001:2008 and the OHSAS 18001:2007 standard.



The processes needed for this Management System, and their interrelations, are depicted in the figure on the following page.

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In addition to the processes depicted above, a number of processes have been identified to support, measure, monitor and analyze these processes, and to implement action necessary to achieve planned results and continual improvement. They are discussed in more depth in the following sections of this Quality & Safety Manual

4.2. Documentation requirements

The documentation of the Management System includes a number of documented procedures, i.e. procedures that are established, documented, implemented and maintained under the surveillance of the Management Representative.

These procedures cover the items expressly mentioned in the International Standards, as well as those procedures the organization deems necessary to ensure the effective operation and control of its processes (as depicted above).

4.2.1. Quality & Safety manual

This Quality & Safety Manual is part of the overall documentation of the organization, and constitutes the primary document for all employees, to inform and guide them through the company's MS.

4.2.2. Control of documents

Documents that are part of this MS, or are relevant to the implementation and maintenance of the company's MS, are controlled and managed according to PROC 01-00: Document Control. This procedure takes care of:

- The approval, review and re-approval of documents
- The identification of revision status
- The distribution of documents
- The prevention of unintended use of obsolete documents
- The continuous availability of documents

4.2.3. Control of quality records

Records required for the MS are controlled according to PROC 01-00: Document Control and Record Registration.

These records are thus maintained to provide evidence of conformance to requirements and of effective operation of the MS.

5. Management responsibility

5.1. Management commitment

Management is committed to the development and improvement of the Management System. This Quality & Safety Manual as well as all operational and supporting procedures are communicated to every employee of **GGG**.

The quality and health & safety policies that are in section 2. of this document thus become known to and binding for the whole organization.

Management Reviews are organized on a regular basis, according to procedure PROC 02-00.

5.2. Customer focus

As already expressed in our Quality Vision (section 2.), we want to ensure that customer needs and expectations are determined (PROC 07-00: Sales and Contract management), converted into requirements and fulfilled with the aim of achieving customer satisfaction (further operational procedures).

5.3. Quality policy

Our Quality Policy has been expressed under section 2: "Our Vision"

This Quality & Safety Manual, together with the quality procedures, is the primary tool in making this quality policy come through.

This policy is reviewed on a regular basis during Management Reviews, according to procedure PROC 02-00.

5.4. Planning

Overall objectives for the company are expressed in a business plan, which is from time to time updated by Management, approved by the board, and communicated to the different stakeholders of the company. Revision of the business plan is discussed and approved at the occasion of Management Review meetings.

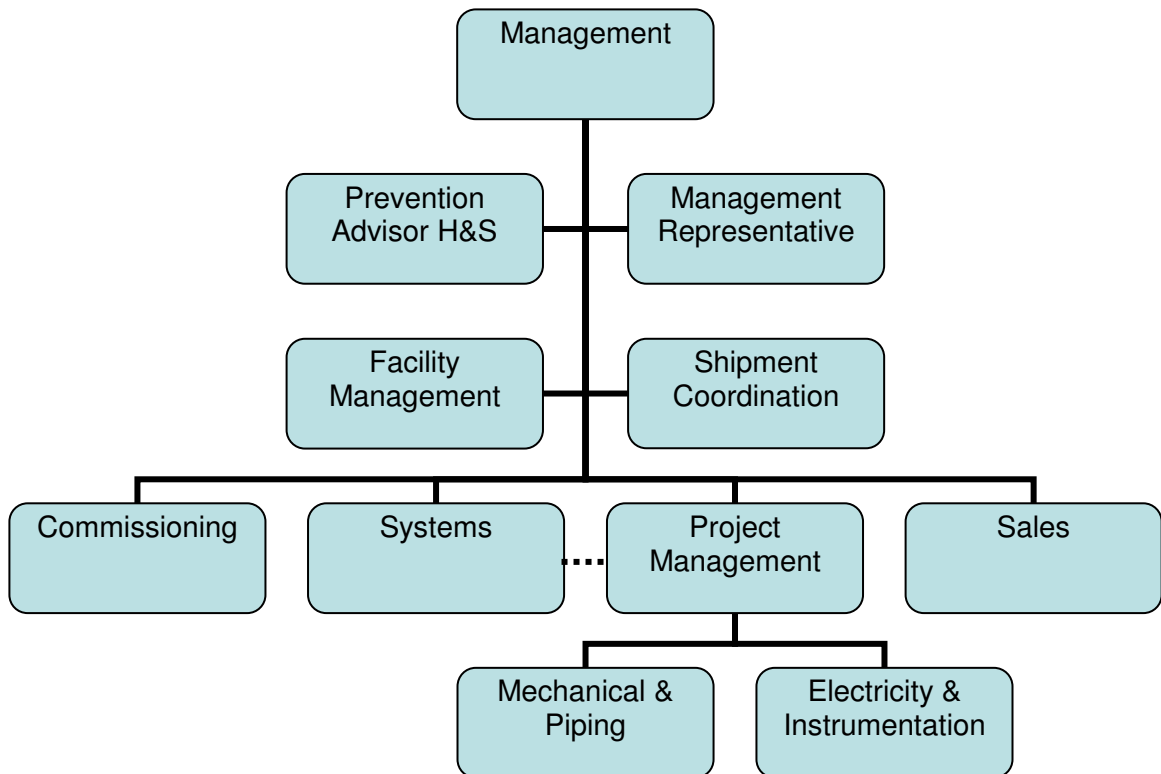
Quality objectives needed to meet the requirements for a given product, will be captured at the time of Requirements Specification (PROC 07-00).

5.5. Responsibility, authority and communication

5.5.1. Responsibility and authority

Functions and their interrelations within the organization, including responsibilities and authorities, are defined and communicated according to procedure PROC 04-00: Job Descriptions.

Their interrelation is illustrated in the following organization chart:



5.5.2. Management representative

The Managing Director appoints a Management Representative for this Management System. This individual has the authority and responsibility to:

- Be the Management Representative for the quality standards listed in section 3. (Scope and Purpose).
- Be the Management Representative for the Health & Safety System of the company
- Ensure that a Management System is established, implemented and maintained in accordance with the quality standards and health & safety requirements listed in section 3.
- Report on the performance of the Management System to the Management Review meetings, as a basis for improvement of the system.
- Ensure that records of all Management Reviews and subsequent actions are maintained.
- Release all approved revision changes to this Quality & Safety Manual

5.5.3. Internal communication

Communication between the various levels of the organization, regarding the processes of this MS and their effectiveness is achieved by the implementation of the Internal Audit procedure (PROC 14-00).

5.6. Management review

Management reviews the MS, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness, and according to PROC 02-00: Management Review.

This review evaluates the need for changes to the MS, including changes to the quality, health and safety policies and the quality, health and safety objectives.

6. Resource management

6.1. Provision of resources

A number of procedures aim at providing, in a timely manner, the resources needed to implement and improve the processes of the MS and to address customer satisfaction. They address human resources as well as facilities and the work environment.

6.2. Human resources

In order to guarantee the necessary competencies (on the basis of applicable education, training, skills and experience) of employees who are assigned responsibilities defined in the MS:

- These competencies are documented in the job descriptions for every function in the organization, according to PROC 04-00: Job Description.
- Employees are informed about their objectives against which they are periodically evaluated in a structured manner, according to PROC 04-01: Performance Evaluation.
- Competency and training needs are identified and the necessary training provided and evaluated where needed, according to PROC 05-00: Training and Competency Management. This procedure also takes care of the maintenance of appropriate records of education, experience, training and qualifications of employees.

6.3. Infrastructure

Facilities needed to achieve conformity of products, are provided by the organization, according to PROC 06-00: Facilities Organization.

6.4. Work environment

The same procedure (PROC 06-00) caters for the management of the physical factors of the work environment.

Risks for health & safety under all circumstances associated with GGS activities, on their own premises as well as at customer sites, are inventoried and evaluated according to PROC 18-00. This evaluation leads to the implementation of collective as well as personal protection instructions and equipment.

7. Product realization

7.1. Planning

The sequence of processes and sub-processes required to achieve the product, are described in the following paragraphs. These refer to the different procedures that describe:

- How quality, health & safety objectives for the product, project or contract are determined
- How resources and facilities specific to the product are provided
- Which verification and validation activities (of GGS or sub-contractors/vendors) are needed, as well as criteria for acceptability
- Which records are necessary to provide confidence of conformity of the processes and the resulting product.

7.2. Customer-related processes

7.2.1. Identification of customer requirements

Identification of customer requirements including requirements for availability, delivery and support, product requirements not specified by the customer but necessary for the intended or specified use, and obligations related to the product, including regulatory and legal requirements, have to be determined prior to signing a contract.

Specific Health & Safety aspects of the contract may have to be considered, whether imposed by the customer or not.

The rules of conduct for these matters are managed according to PROC 07-00: Sales and Contract Management.

7.2.2. Review of product requirements

The identified customer requirements, together with additional requirements determined by the organization, have to be reviewed prior to the commitment to supply a product to the customer.

The process for conducting this review is also described in PROC 07-00: Sales and Contract Management.

7.2.3. Customer communication

Communication with customers relating to product information, enquiries and contracts (or changes to contracts), is also governed by PROC 07-00.

Communication with regards to customer feedback, including customer complaints, is governed by PROC 15-00: Customer Satisfaction and Complaint Management

7.3. Design and development

Design and development is to the engineering aspects of an installation. No products are being developed by GGS. Therefore, design and development is excluded from this QMS.

7.4. Purchasing

Purchasing activities are managed and controlled conform PROC 08-00: Purchasing, and cover following activities:

- Authorization to purchase
- Supplier selection
- Supplier evaluation on a regular basis
- Product verification, including verification activities at the supplier's premises.

Health & safety aspects of goods purchased are part of the selection process and suppliers have to adhere to applicable laws and regulations concerning Health & Safety aspects of their products or services.

7.5. Production and Service operations

7.5.1. Operations Control

Production and Service operations are controlled through:

- The availability of information that specifies the characteristics of the product
- Where necessary, the availability of work instructions, manuals and standards of good craftsmanship.
- The use and maintenance of suitable equipment for production and service operations, while taking into account the health & safety aspects of such equipment.
- The availability of measuring and monitoring devices
- The implementation of monitoring activities
- The implementation of defined processes for release, delivery and applicable post-delivery activities

These activities are implemented, controlled and maintained according to PROC 16-00: Handling, Packaging and Transportation, and PROC 11-01: Measurement and Controls.

7.5.2. Validation of processes

This paragraph of the International Standard is not applicable to the company's activities. The output of all processes can be measured and verified.

7.5.3. Identification and traceability

The identification, where appropriate, of the product throughout production and service operations, including status identification and traceability requirements are managed according to PROC 09-00: Identification and Traceability

7.5.4. Customer property

Exercising care with customer (and supplier's) property, in order to verify, maintain and protect such property while it is under the organization's control or being used by the organization, is governed by procedure PROC 17-00: Customer property. This procedure also takes care of the preservation of intellectual customer property, through the use of Confidentiality Agreements.

7.5.5. Preservation of product

Preservation of conformity with customer requirements during internal processing and delivery, is managed as described in PROC 16-00: Handling, Packaging and Transportation.

7.6. Control of measuring and monitoring devices

Control of measuring devices is done through regular calibration by external companies and internal verification of measuring devices, as described in PROC 12-00: Calibrations.

8. Measurement, analysis and improvement

8.1. Planning

Measurement and monitoring activities are governed by a number of procedures:

- PROC 11-00: Commissioning
- PROC 11-01: Measurements (Quality Control)
- PROC 13-00: Control of Nonconformity
- PROC 15-00: Customer Satisfaction and Complaint Management
- PROC 14-00: Internal Audit
- PROC 03-00: Continuous improvement (incl. Corrective and Preventive Actions)
- PROC 13-01: Incidents and Accidents

8.2. Measurement and monitoring

8.2.1. Customer Satisfaction

The methodologies used for obtaining and using customer information on his satisfaction and/or dissatisfaction are described, implemented and maintained according to PROC 15-00: Customer Satisfaction.

8.2.2. Internal Audit

Periodic internal audits are conducted conform PROC 14-00 to determine whether the MS:

1. conforms to the requirements of the International Standard
2. has been effectively implemented and maintained

The procedure describes the responsibilities and requirements for conducting those audits, ensuring their independence, recording results and reporting to management.

8.2.3. Measurement and monitoring of processes

Realization processes necessary to meet customer requirements are monitored during internal audits, performed according to PROC 14-00. Where appropriate, Management decides to monitor specific “KPI’s” (Key Performance Indicators) on important processes.

8.2.4. Measurement and monitoring of product

Evidence of conformity with acceptance criteria is documented and products are subsequently released according to PROC 11-01: Measurements, depending on the nature of the product.

8.3. Control of nonconformity

Products which do not conform to the requirements are treated and controlled to prevent unintended use or delivery. When detection of the nonconformity occurs after delivery or use has started, appropriate actions have to be taken regarding the consequence of the nonconformity.

These actions are governed by PROC 13-00: Measurements and Control of nonconformity

8.4. Analysis of data

Data to determine suitability and effectiveness of the QMS are collected and analyzed according to procedures:

- PROC 02-00: Management Review
- PROC 15-00: Customer Satisfaction and Complaint Management
- PROC 14-00: Internal audit

8.5. Improvement

Continual improvement is obtained through the implementation of a number of procedures:

- PROC 02-00: Management Review
- PROC 15-00: Customer Satisfaction and Complaint Management
- PROC 14-00: Internal audit
- PROC 11-01: Measurement
- PROC 13-00: Control of nonconformity

These procedures may all lead to Corrective and/or Preventive actions, according to PROC 03-00: Continuous Improvement.

9. Reference to the international standards

The following table lists all quality procedures that make this Management System, with their reference to the appropriate paragraph or section of the ISO 9001:2008 and the OHSAS 18001:2007 international standards.

This allows the reader of this manual to better position the different elements of the MS in the overall context of this international standard.

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QUALITY & SAFETY MANUAL
 Revision 4

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Identification and Subject of document	Ref. to ISO 9001:2008	Ref. to OHSAS 18001:2007
PROC 01 Document Control (paper and/or electronic format, control & release, safeguarding against loss or deterioration)	4.2	4.4.4/4.4.5
PROC 01 Record Registration	4.2.4	4.5.4
PROC 01-01 Personal Safety Logbook	4.2.3/4.2.4	4.4.4
PROC 02 Management Review (includes Quality Policy review & communication, and updating of Organization Chart)	5.1/5.2/5.3 5.4.1/5.5.3/5.6	4.2/4.5.1/4.6
PROC 02-01 Communication	5.5.3	4.4.3
PROC 03 Continuous Improvement	8.5	4.5.3
PROC 04 Job Descriptions	5.5.1/5.5.2	4.4.1.
PROC 04-01 Performance Evaluation	6.2.1/6.2.2	4.4.2
PROC 05 Training and Competency Management	6.2.1/6.2.2	4.4.2
PROC 06 Facilities Organization	6.1/6.3/6.4	4.4.1
PROC 06-01 Compliance with Legal Requirements	7.1	4.3.2/4.5.2
PROC 06-02 Emergency procedures	6.4	4.4.7
PROC 07 Sales and Contract Management	7.2	4.4.6
PROC 08 Purchasing	7.4	4.4.6
PROC 08-01 Subcontracting	7.4	4.4.6
PROC 09 Identification & Traceability	7.5.3	-
PROC 10 Project management	7.5.1	4.4.6
PROC 10-01, PROC 10-02 and PROC 10-03 Engineering	7.5.1	4.4.6
PROC 10-04 Training Production	7.5.1	4.4.6
PROC 11-00 and 11-01 Commissioning, Measurement and Controls.	8.2.4./8.3.	4.5.3
PROC 11-02 Safety Inspections	8.2.3	4.5.1
PROC 11-03 Last Minute Risk Analysis	8.2.3	4.5.1
PROC 12 Calibration of measuring equipment	7.6	4.5.1
PROC 12-01 Safety Inspections Tools	8.1	4.4.6/4.5.1
PROC 13 Control of Non-Conformity	8.3	4.5.3
PROC 13-01 Incidents and Accidents	-	4.5.3
PROC 14 Internal Audit	8.2.2/8.2.3/8.4	4.5.5
PROC 15 Customer Satisfaction and Complaint Management	8.2.1	4.5.3
PROC 16 Handling, Packaging, Transportation	7.5/7.5.5	4.4.6
PROC 16-01 Waste management	7.1	4.4.6
PROC 17 Customer Property	7.5.4	-
PROC 18 Risk Inventory	6.4	4.3.1