



FABRICATION

HFG CHEQSERT Protocol

An HFG Continual Improvement Tool

A HEEREMA COMPANY





CHEQSERT

CHEQSERT is an HFG customized Assessment Protocol which covers a framework of controls that together drive QSHE Performance and continual improvement of Heerema Fabrication Group

In 1999, Heerema Fabrication Group (HFG) embarked on a Total Quality Management program using the IQRS (International Quality Rating System) model. During the following years this model brought a new perspective in the way we looked at the organization. In contrast to the previous audit methodologies, IQRS focussed not only on the ISO 9001 elements, but looked at previously untouched elements such as Leadership and Strategy, Human Resources and Employee Involvement and Communication. An added advantage was the fact that the results could be benchmarked throughout the HFG yards. The audits were carried out by a combined audit team of DNV (Det Norske Veritas) and HFG, which resulted in significant improvements in its six year tenure.

IQRS is however generic in nature and therefore not fully focussed on the oil & gas industry. Furthermore, Safety, Health and Environmental issues were not handled. With this in mind, a decision was made in 2004 to develop, together with DNV, an integrated, tailor made audit protocol for Heerema Fabrication Group. This became the Cheqsert protocol.

CHEQSERT principles

Cheqsert was completed and introduced at Heerema Fabrication Group in 2005 and has since been subject to yearly update and refinement.

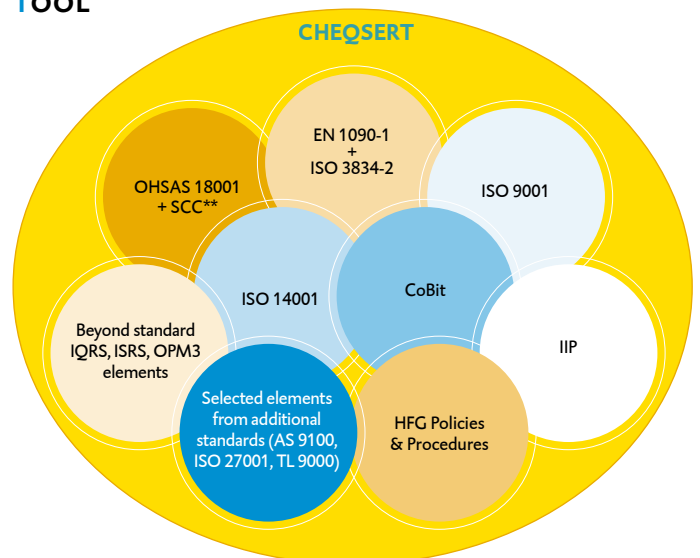
The protocol is based on the following principles:

- Complete integration of Quality, Safety, Health and Environmental issues
- Inclusion of Corporate Governance aspects
- Tailor made for the offshore industry whilst taking note of "best practice"
- Create a framework for benchmarking and continual improvement

CHEQSERT coverage

The protocol ensures compliance with the required standards as well as measuring performance against recognized improvement models.

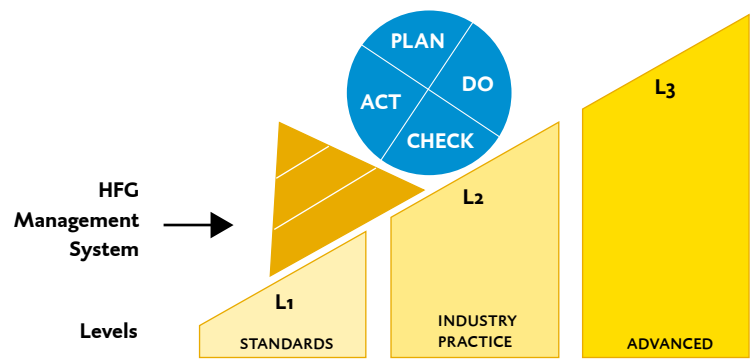
COMBINED HEEREMA ENVIRONMENTAL QUALITY SAFETY EVALUATION RATING TOOL



CHEQSERT structure

Three levels of questions are recognised (see figure on the right) i.e.

- **Level 1:** questions covering code requirements (ISO 9001, ISO 14001, OHSAS 18001 etc.)
- **Level 2:** questions covering elements seen as Heerema Fabrication Group or industry recommended practice
- **Level 3:** questions covering advanced or “stretch” requirements/expectations



Level	Code	Description	Sub-element Score: (286 Points)	Freq /24
L1	A	4.1. Process Management and Control		
L1	A	4.1.1. GROUP >> Processes are in place to ensure Project Management activities are planned, controlled and delivered from an HSEQ and operational perspective.	HS <input type="checkbox"/> E <input type="checkbox"/> Q <input type="checkbox"/>	
		<ul style="list-style-type: none"> • Not done (0) • Partly (9) • To a large extent (18) • Fully (24) 	HS <input type="checkbox"/> E <input type="checkbox"/> Q <input type="checkbox"/>	
L1	A	4.1.2. GROUP >> The organisation has identified and defined the processes for Project Management. > If no, proceed to question 4.1.6.	XO-12	Q <input type="checkbox"/>
L2	A	4.1.3. In defining the Project Management process(es), the following issues have been taken into consideration:	Part/Whole 4 /28	Q <input type="checkbox"/>
		1. GROUP >> Scope/purpose of the process(es)		Q <input type="checkbox"/>
		2. GROUP >> Internal and external interfaces of the process(es)		Q <input type="checkbox"/>
		3. Definition and agreement over outputs with (internal) customers/users		Q <input type="checkbox"/>
		4. Definition and agreement over inputs with (internal) suppliers/providers		Q <input type="checkbox"/>
		5. GROUP >> Process flow mapping (or equivalent)		Q <input type="checkbox"/>
		6. Resources needed (qualified personnel, technology, etc.)		Q <input type="checkbox"/>
		7. Assignment of responsibilities/authorities		Q <input type="checkbox"/>

The protocol has been fully integrated to the extent that many of the questions have Quality, Safety, Health or Environmental aspects and as such can be independently verified and analyzed for each discipline. An example of the protocol layout is shown in the figure on the left.

“The CHEQSERT protocol has given us, in addition to the standard ISO 9001 elements, a measurable status on new focus areas, such as Human Resources, Risk Management, HSE, Asset Management as well as Leadership & Strategy. CHEQSERT scores have been addressed at management team level and targets are set to guide us in our continual improvement objectives. This process automatically drives continual improvement throughout all of the elements/protocols adopted.”

*Executive Board of Directors
Heerema Fabrication Group*



The complete protocol consists of 16 separate elements grouped into 4 main modules:

Management Controls

- 1 Leadership and Strategy
- 2 Management System Organization and Documentation
- 15 Corporate Governance

Primary Processes

- 3 Sales and Tendering
- 4 Project Management
- 5 Design and Engineering
- 6 PSCM
- 7 Construction
- 16 Steel Construction and Welding

Support Processes

- 8 Asset Management
- 9 HSE
- 10 HRM
- 11 Quality Control
- 14 ICT

Feed Forward / Feed Back Loops

- 12 Correction, Prevention and Improvement
- 13 HSEQ Management System Audit and Review

Each element is divided into a number of sub-elements, which in turn consist of a number of questions. Points are scored for each question and results can be illustrated by element, sub-element or discipline.

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