

INDUSTRY STANDARD

NO. 004

Competency of personnel

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This document will be controlled in accordance with the NOGEP A Industry Standard No. 80 on Standards and Document Control.

Terms and definitions

Competency	The combination of knowledge, skills, understanding and behavior
Competent authority	The public authority, appointed pursuant to the EU OSD and responsible for the duties assigned to it in the EU OSD. The competent authority may be comprised of one or more public bodies
EU OSD	EU Directive 2013/30 EU on safety of offshore oil and gas operations
Operator	The entity appointed by the licensee or licensing authority to conduct oil and gas operations, for example, but not limited to: planning and executing a well operation or managing and controlling functions of a production installation
SECE	Safety and environmental critical element

Legal Requirements

Offshore Safety Directive 2013/30 EU	Article 2, section 1.5 and 1.14. Article 11, section 1a. Annex 1, section 8.8
Mining Act	Article 45j
Working Conditions Act	Article 3
Working Conditions Regulations	Article 42, 42e and 42f

Related Standards

Standard 48	Independent verification
Standard 83	Report on Major Hazards Standard
Standard 90	Asset Integrity

Important Nomenclature used in this Standard

In the context of this Standard and when so used to describe a method or practice:	
'shall'	means that such method or practice reflects a mandatory provision of law (in Dutch: <i>dwingend recht</i>). Such method or practice is mandatory for those who are the addressees of such provision (mostly the operators). A Standard can describe or quote, but not amend, mandatory provisions. When an operator in exceptional cases for technical, operational or HSE reasons cannot comply, exceptions shall be documented and reported, and risks mitigated. Please note that this does not release the operator from the obligation to comply with the law. *
'should'	means that such method or practice reflects a Good Operating Practice. An operator is generally expected to apply such method or practice, but a specific situation may require a specific alternative. In other words: the operator complies or explains, and documents the explanation. *
'could'	means that such method or practice is of an advisory nature or mentioned by way of example. An operator is not obliged to comply and is not obliged to explain if he does not comply.
* Please refer to paragraph 2.3 of Standard 80 (Standards and Document Control), for further explanation on an exception of a 'shall' provision, or on a comply-or-explain of a 'should' provision.	

1. Executive Summary

Incidents related to oil and gas operations have raised public awareness of the risks involved in these operations. Assurance of competency is becoming more and more important in the oil and gas industry. Competent and well trained staff is seen as a significant factor to mitigate these risks. The EU acknowledges the importance of competent personnel by addressing this in the Offshore Safety Directive (OSD). According to the European Union specific legislation (the OSD) is needed to address the major hazards relating to the offshore oil and gas industry, specifically in process safety, safe containment of hydrocarbons, structural integrity, prevention of fire and explosion, evacuation, escape and rescue, and limiting environmental impact following a major accident. Based on the OSD operators shall submit a corporate major accident prevention policy. This policy shall contain the operator's approach to competency at all levels of its organization.

These requirements in the OSD will be implemented in Dutch law. Operators, entities that operate a production installation, on the Dutch Continental Shelf or onshore within The Netherlands have to comply with this new requirement. The purpose of this NOGEP standard is to provide guidance for a competency assurance management system with respect to required competences for all staff responsible for executing any activities that can have a significant impact on safety (process safety, personal safety and the safety of others) and/or the environment, being the areas where the OSD focusses on.

2. Scope and application

2.1 Scope

The purpose of this standard is to provide guidance for a competency assurance management system with respect to required competences for all staff responsible for executing activities that can significantly impact:

- process safety
- personal safety
- the safety of others
- the environment

Most operators will have a competence assurance management system in place. Purpose of this Standard is not to replace the current management system but to give an overview of what should be addressed in the competence assurance management system.

2.2 Application

This Standard applies to all operators active in the upstream Dutch oil and gas exploration and production industry, both onshore and on the Netherlands continental shelf.

3. Introduction

The EU OSD introduces the obligation to address competency in the corporate major accident prevention policy. The operator shall submit to the competent authority a document that contains operator's approach to competency at all levels of the company. Competency of personnel is a significant factor to mitigate the risks in the oil and gas industry.

Competency is defined as a combination of knowledge, skills, understanding and behavior.

Not only the management of an operator should be aware of the importance of competency, also the personnel should be aware of this importance. Management should raise this awareness with the operator's staff and should explain why competency is so important and what should be done to get or maintain the level of competency needed for a certain role in the organization and its associated activities.

3.1 Legal

Based on the OSD companies shall prepare a document setting out their corporate major accident prevention policy, implement it throughout their oil and gas operations and set up appropriate monitoring arrangements to assure effectiveness of the policy. This prevention policy shall contain, amongst other things, the operator's approach to prove competency at all levels in its organization.

This EU legislation will be implemented in the Dutch Mining Act (Mijnbouwwet) and the Working Conditions Act (Arbeidsomstandighedenwet). The clause about competency in the OSD will be implemented via the Mining Act (article 45j) and in the Mining regulations. At the issue date of this Standard, the Mining regulations with OSD implementation are not yet published.

Based on article 3 of the Working Conditions Act and article 42, 42e and article 42f of the Working Conditions Decree an operator shall have a health and safety management system in place. The implementation of the OSD in the Working Conditions legislation will probably be specified in the Working Conditions Regulations but these are not published at the issue date of this Standard.

Based on the above mentioned legislation operators shall have a management system in place for HSSE and competence.

4. Process

The process of setting up a Competency Assurance Management System shall contain the following steps:

1. Identification of activities
2. Identification and ranking of the risks involved in the different activities
3. Identify how to manage the risks involved in these activities
4. Identify the roles in the organisation, and the individuals appointed in these roles, that are to execute the activities and their associated competencies

Only with a good overview of the operator's activities, the risks involved and the identification of the roles that need to execute these activities will it be possible to manage the risks. In addition should be determined what competences individuals must have to mitigate these risks. Attached to this Standard is an Appendix with an overview of competencies that require assurance during the operations phase. This Appendix can be used for guidance but should not be considered as an exhaustive list.

4.1 Identification and objective of activities

The operator should define all the activities involved in the oil and gas operation which means all activities associated with an installation or connected infrastructure, including design, planning, construction, operation and decommissioning.

4.2 Ranking of risks and mitigating measures

For the activities during the lifecycle the operator should rank the risks using an industry accepted practice and identify what mitigating measures are to be implemented to bring the risks to as low as practicable.

4.3 Identification of roles in the organisation and associated competency

For the activities during the lifecycle the operator should identify which roles (functions) in its organisation will be responsible for performing or managing the different activities that may have an impact on safety or the environment. The operator should also identify what competencies the individual in that particular role should have.

5. Competency assurance management system

The operator shall maintain a competence assurance management system. This system shall identify all HSSE critical activities which are related to the SECE identified. Further these HSSE critical activities are also related to functions in operator's organization that are to perform these activities. The competence management system will identify which individual is assigned to the roles in the organization and as such is responsible for performing or managing the specified critical activities.

An operator should assess on a regular basis whether their competency assurance management system is up-to-date. The process and the frequency of this assessment should be well documented to enable auditing the system.

5.1 Records of individual competences

For the individuals identified above the competency assurance management system will contain the necessary documentation to prove the individual is competent to perform the allocated critical activities. This documentation will therefore need to prove the combination of knowledge, skills and behavior mentioned before.

In addition the competency assurance management system will also identify the validity of proven competencies and the need for possible refresher trainings.

5.2 Management of change

The competency assurance management system should be capable of demonstrating proper adaptation to changes. These changes could be organizational, in legislation, facility modifications or additions etc.

5.3 Audit and review

The competency assurance management system should be subject to regular review by the operator and enable improvements as recommended by the review findings.

Annex I Examples of competencies that require competency assurance

FIELD / PRODUCTION OPERATIONS COMPETENCE ELEMENTS	
Functional Area of Expertise	Competence
HSSE	Chemical handling
	Chemicals & hazard communication
	Helicopter Landing
	Provide Medical Assistance
	Firefighting
	PPE
	Evacuation
	Communication means
	Survival at sea and helicopter underwater escape
	Working with Radioactivity / Working with NORM
	Recognize and Working with Asbestos
	POB
	Scaffolding
	Working at Height
	Confined Space Entry / Confined Spaces/Working as Manhole Guard
	Working With Electrical Equipment
	Controlling Static Electricity Hazards
	ATEX
	Potable water control
	Use Of Breathing Apparatus
	Hoisting and lifting
	Simple Lifting including Rigging & Slings
	Manual Handling
	Operating Manual & Procedures
	Safe Systems of work / permit to work
	Near Miss / Incident Reporting & Follow-up
	Responding to Emergencies
	Emissions and Discharges
	IMDG handling dangerous goods
	Waste Handling
	Critical and Safety systems:
	Fire water supply, ESD, Fire&Gas, Auxiliary power generation
	Line and Equipment Specifications & associated Drawings
	Temporary Plant/Facility Changes
	Work Within Area / Zone Classification
	Working in Hazardous Atmospheres
	Instrument air
	HIPS
	HVAC
	Electrical Safety
	Application of MOS/OOS (Maintenance Override Switch / Operations Override Switch)
	Gas Freeing or Purging
Gas Testing	
Work with Safeguarding and interlocks	
Maintain Hose Management	
Process Safety Risk Management	
Management of Change	
Ensure safe Design & Construction	

Production	Operate Oil Systems & Processes
	Operate Gas Systems & Processes
	Operate Produced Water Systems & Processes
	Operate Enhanced Recovery Systems & Processes
	Operate Export Systems & Processes
	Operate Process Utility Systems & Processes
	Operate Consumer Utility Systems & Processes
	Implement safe Process isolations
	Manage Downgraded situations
	HIPS
	Safety Valves
	Subsea system
	Pigging
	Emergency Shutdown System
	Soft water / Drinking water / Sewage
	Open and Closed drains
	Monitor and Control Hydrocarbon Process Activities
	Safety System Checks
	Product (Material) Sampling
	Prevent Corrosion and Material Degradation
	Tank & Vessel Drainage & Operation
	Manage wells and facilities alarms
	Operate wells and facilities within operating envelopes
	Instrumentation Measures (flow, level, pressure, temperature, etc.)
	Hydrocarbon extraction:
	Extraction well, Test separator & Slug catcher, Gas lift
	Instructions & Hand-over
	Produced Liquid Processing:
	Separations, sweetening, dehydration/desalting/stabilizing, Gas compression, Flare network
	Supervision Contractor Companies
	Operate Fuel oil / Diesel oil / Jet Fuel/Fuel gas systems
	Execute communication and shift handover
	Manage wells and facilities critical documentation
	Implement effective PTW system
	Ensure site teams are competent
	Maintain Statement of Fitness (Sof)
	Manage Concurrent & Simultaneous Operations
	Apply Electrical Safety in installation, commissioning & operation
	Inspect, test and maintain Electrical Isolations
	Inspect, test and maintain Normes IEC/ATEX
	Inspect, test and maintain earthing and Bonding
	Inspect, test and maintain Power Systems
	Inspect, test and maintain Auxiliary & Back-up power
Inspect, test and maintain Electrical Distribution System	
Inspect, test and maintain Electrical Drives & Motor control centre	
Inspect, test and maintain Electrical installations	

Production	Inspect, test and maintain Emergency Shutdown valves
	Inspect, test and maintain Instrumented Protection Systems (IPS)
	Inspect, test and maintain Fire and Gas Detection devices
	Inspect, test and maintain Fire and Gas Control Systems
	Inspect, test and Maintain Measuring devices and Analysers/Equipment
	Inspect, test and maintain Process Control systems
	Inspect, test and maintain 'Current to Pneumatic' (I/P) Converters
	Inspect, test and maintain Control Valves
	Inspect, test and maintain Process Controllers
	Inspect, test and maintain Fired Equipment
	Inspect, test and maintain Heat Exchanger
	Inspect, test and maintain Pressure Vessels & other process Equip
	Inspect, test and maintain Piping Systems, Utility & HVAC
	Inspect test and maintain Lifting Devices
	Inspect, test and maintain Safeguarding Vent & Relief Systems
	Inspect, test and Maintain Turbines
	Inspect, test and Maintain Compressors
	Inspect, test and Maintain Engines
	Inspect, test and Maintain Pumps
	Inspect and evaluate performance of Rotating Equipment

