Operating management system
Context and development strategy
(ISO/TC 67/WG 2)

Ted Fletcher, convenor
Jarno Dakhorst, secretary
Discussion topics

• Anti competition reminder
• Mentimeter
• Context
  • International Association Oil & Gas Producers (IOGP)
  • ISO/TC 67 -
  • ISO/TC 67/WG 2 – Operating integrity management
• Operating management system development (ISO 29010)
  • Development context
  • IOGP Operating management system framework (510/511)
  • ISO management system standards (high level structure)
  • Development principles and progress
  • Next steps
• Questions
Anti competition reminder

• The meeting participants are reminded that the participants are competitors, and are subject to antitrust laws
• The parties are committed to compliance with all applicable antitrust laws and other applicable laws and regulations
• Discussions which might be misconstrued as price fixing, customer or market allocation, attempts to alter the competitive open bidding season, or boycott suppliers and customers are not allowed
• Discussions of other competitively sensitive subjects such as marketing strategies, supply and demand forecasts, open season bids, specific suppliers, and customer information are not allowed
• If any meeting participant has any questions/concerns regarding these antitrust considerations with respect to the meeting, he/she will consult his/her counsel
PLENARY DISCUSSION on OPERATING MANAGEMENT SYSTEMS

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IOGP – Global representation

The map above shows the division of the world into seven regions on which subscription shares are based. The delineation of zones is not intended to reflect offshore boundaries.

Map shows locations of Member Head Offices. Many operate globally.
IOGP – Organization and committees

Management Committee

14 Standing Committees

- Arctic
- Communications
- Decommissioning
- Environment
- EU
- Geomatics
- Health
- Legal
- Maritime
- Safety
- Security
- Standards
- Subsea
- Wells

33 Subcommittees

- Joint with IAGG
- Joint with IPIECA

28 Task Forces

6 Networks

For more information on Committees and their work, please contact us.
IOGP – Standardization initiatives

**Operators preferred standards**
“What we need and what we have”

**Operator alignment on defining requirements**
“What good looks like”

**Requirements deployment – step change**
“Transforming how we develop, share and deploy requirements”

or more information on Committees and their work, please contact us
ISO/TC 67 - Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries
ISO/TC 67/WG 2 - Operating integrity management

Provide requirements, guidance and tools to support organisations within the petroleum, petrochemical and natural gas industries in establishing and implementing management, quality and conformity assessment processes to reduce operating risk and drive improvement throughout their business activities.

- About 80 members from 17 countries
- Representatives from following ISO/TC 67 liaison organisations:
  - IADC – International Association of Drilling Constructors
  - IOGP – International Association of Oil and Gas Producers
  - IPIECA – Global oil and gas industry association for advancing environmental and social performance
- 5 standards published
- 2 standards under development
  - ISO 29001 – Supply chain quality management requirements
  - ISO 29010 – Operating management system requirements and guidance
## ISO 29010 - Operating management system standard

### Operating management system

- Based on High level Structure for MSS
  - Organization context
  - Leadership
  - Planning (risk based)
  - Support (to operations)
  - Operations (asset lifecycle)
  - Performance assessment
  - Improvement

### Main functional standards [examples]

- **Quality management system** [ISO 9001/ISO 29001]
- **Environmental management system** [ISO 14001]
- **Occupational health and safety management system** [ISO 45001]
- **Asset management system** [ISO 55001]
- **Energy management system** [ISO 50001]
- **Business continuity management system** [ISO 22301]
- **Information security management system** [ISO/IEC 27001]

### [Industry] standards & guidelines that inform OMS requirements [examples]

- **Emergency response** [ISO 15554]
- **Risk management** [ISO 31000]
- **Major accident hazard management during design new installations** [ISO 17776]
- **Well integrity** [ISO 16530]
- **Process safety** [ISO 10418]
- **Project management** [ISO 21500]
- **Energy Institute process safety management framework**
- **Offshore safety and environmental management program** [API RP 75]
ISO 29010 – Oil & Gas management system concept
ISO 29010 - Operating management system strategy

Scope
Integrated operating management system framework for operators and principle service providing organisations

Guiding principles
- **Operating Management System Framework**: Build on fundamentals and elements from IOGP Reports 510 & 511
- **ISO Annex L**: Align with common management system structure
- **Integrated Management System**: Build on PAS99 framework for integration
- **Functional Standards**: align with key functional standards for quality, safety/process safety, environment, asset management etc.
IOGP – Operating management system framework

**IOGP Report 510**, Operating management system framework: for controlling risk and delivering high performance in the oil and gas industry, 2014


**IOGP Report 432**, HSE management – guidelines for working together in a contract environment, 2017

**IOGP Report 432-1**, Contractor HSE capability assessment and scoring system – supplement to R432, 2017
What is a management system?

**Management** (ISO 9000:2015): coordinated activities to direct and control an organization

**Management system** (Annex L): set of interrelated or interacting elements of an organization to establish policies and objectives, and processes to achieve those objectives
In more simple language

What is a management system?

A management system is the way in which an organization manages the inter-related parts of its business in order to achieve its objectives. These objectives can relate to a number of different topics, including product or service quality, operational efficiency, environmental performance, health and safety in the workplace and many more.

The level of complexity of the system will depend on each organization’s specific context. For some organizations, especially smaller ones, it may simply mean having strong leadership from the business owner, providing a clear definition of what is expected from each individual employee and how they contribute to the organization’s overall objectives, without the need for extensive documentation. More complex businesses operating, for example, in highly regulated sectors, may need extensive documentation and controls in order to fulfil their legal obligations and meet their organizational objectives.

SOURCE: www.iso.org
Management system in context

- Requirements/needs
- Stakeholders
- Feedback/accountability

Input:
- Good correlation

Output:
- Performance

Management system:
- Policy and objectives
  - Plan
  - Do
  - Check

ISO Standards:
- ISO 9001
- ISO 14001
- ISO 45001
- ISO 27001
- ISO 22000
- ISO 55001

Management system days @ Equinor
Oslo | 29 & 30 October 2019
Former situation: non-aligned standards

- ISO 14001:2004 Environment
- ISO 9001:2008 Quality
- ISO/IEC 27001 Information security
- ISO 22000 Food safety
- ISO 50001 Energy
- PAS 55:2008 Assets
- OHSAS 18001 Occupational health and safety
- BS 25999 Business continuity
- ISO 30301 Records
- ISO 28000 Supply chain security
High level structure introduced

High level structure and identical text for MSS and common core MS terms and definitions

4. Context of organization
5. Leadership
6. Planning
7. Support
8. Operation
9. Performance evaluation
10. Improvement

<table>
<thead>
<tr>
<th>Management processes “Top management language”</th>
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<td>Leadership</td>
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<td>Stakeholder management &amp; accountability</td>
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<td>Process management</td>
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<tr>
<td>Improvement and innovation</td>
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<td>Support and (human) resources</td>
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HLS – Aligning management themes

Potential audit trails to assess effectiveness of management system processes.
New situation: fully aligned standards

- ISO 14001:2015 Environment
- ISO 9001:2015 Quality
- ISO/IEC 27001:2017 Information security
- ISO 50001:2018 Energy
- ISO 55001:2015 Assets
- ISO 45001:2018 Occupational health and safety
- ISO 22301:2014 Business continuity
- ISO 37001:2016 Anti-bribery
- ISO 19600:2015 Compliance
ISO 29010 - Operating management system standard
ISO 29010 Operations and Support
ISO 29010 Opportunity realization

OPPORTUNITY REALIZATION

Identify opportunity
- Assess commercial merit
- Economic risk analysis

Concept selection
- Select optimal development
- Commercial risk analysis

Implement opportunity
- Define selected development
- Organizational risk analysis

Deliver value
- Realize development
- Technical risk analysis
- Commercial risk analysis
- Socio-political risk analysis

Divest opportunity
- Start-up, handover and operate
- Dissolve or divest
ISO 29010 - Operate and maintain
ISO 29010 – Support - Design life cycle

Develop the Design
- Assess Technical Feasibility of Selected Concept Design & Acquire Basic Design Data
- Develop the Basis of Design
- Develop Front End Engineering Design (FEED)
- Develop Detailed Design
- Provide Follow-on Engineering (ie Procurement, Construction, Commissioning, Installation, Start-up & Handover)

Operate the Design
- Maintain Facility against Design
- Monitor Facility Operations against Design
- Measure & Analyse Facility Performance
- Improve via Change Management
ISO 29010 – Support – Cascading contracting model

At any level in the supply chain purchasers may elect to place orders via a management or execution contractor or direct to package, equipment, component or material suppliers and must assess and manage the associated risk consistent to the role/scope played by their selected supplier of service and/or product.
ISO 29001 – Support – Supply chain management
Progress and next steps

- Operating management system requirements complete (agreed by WG 2)
- Supporting guidance targeted end October
- Issue to ISO/TC 67 Secretariat end November
- DIS issue Q1 2020
- Comments resolution targeted Q3 2020
- FDIS end 2020
- Publication Q1 2021
Thank you

Ted Fletcher
• tf@iogp.org
• +44 7342034821

Jarno Dakhorst
• jarno.dakhorst@nen.nl
• +31 6 3333 4671

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