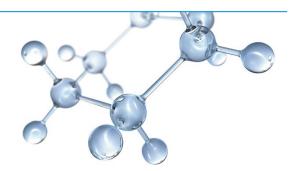


Taking on the world's toughest energy challenges."



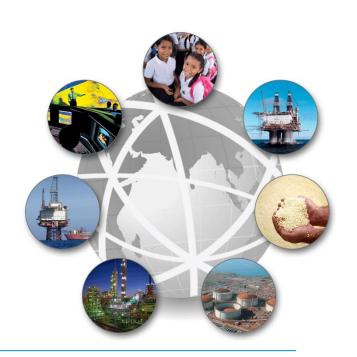
Operations Change Management

Fredrik Sønstabø Asset Manager - Jotun and Sigyn

Topics to be covered



- Operational Changes
- HSE management system
- Leadership Commitment
- Management of Change
 - Process Overview
 - Examples
 - Stewardship
- System assessment
- Closing Remarks



Operational Changes



People

- Organization
- Roles & responsibilties
- Competency & Training
- Short service workers

Plant

- Production facilities
- Safety Critical Systems
- Critical set points
- Corrosion chemicals
- Design standards
- Maintenance strategies

Processes

- Critical procedures
- Work management
- Emergency response plans
- Change management
- Documentation management

Management System



Execution



Feedback

Leadership Commitment and Accountability

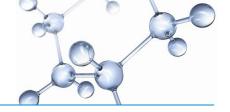
Principle: Management establishes policy, provides perspective, sets expectations and provides the resources for successful operations. Assurance of Operations Integrity requires management leadership and commitment visible to the organization, and accountability at all levels.

 Management commitment and personal accountability

- Workforce engagement
- Performance evaluation and stewardship of results



Management of Change Framework

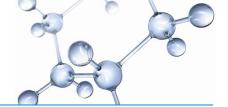


Principle: Changes in operations, procedures, site standards, facilities, or organizations must be evaluated and managed to ensure that Operations Integrity risks arising from these changes remain at an acceptable level.

- Recognizing change
- Consistent process applied for all changes
- Communication of the change, risk involved and mitigation measures
- Management endorsement according to risk level



Common Change Process



Change Identified

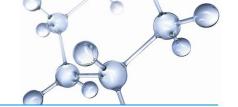
Hardware/equipment change
Critical set point (PHHL) change
Substitution of chemicals
Critical procedure change
Organizational structure change
Maintenance Plan change
Inspection Plan change
Safety Critical Barriers change
Bridging document change



Change execution and stewardship

Open changes per asset
Higher risk changes
Change status
Change actions overdue
Temp changes
exceeding time limits

5 – Change Process Key Steps (simplified)



Identify

- Identify change (Initiator)
- Wizard actions based on change type (Sponsor)
- Approval to progress (Supervisor)

Assess / prepare

- Risk screening determine approval level
- Complete pre-start-up actions
- Approval for use (Manager)

Implement

- Pre Start-up Safety Review (Sponsor)
- Communicate (Site supervisor)
- Implement change and mitigation actions

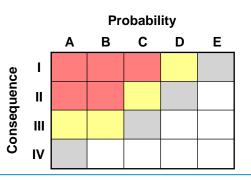
Closure

- Update of documentation (Sponsor)
- Closure of actions (Sponsor)
- Approval for closure (Site Supervisor)

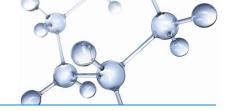
Examples

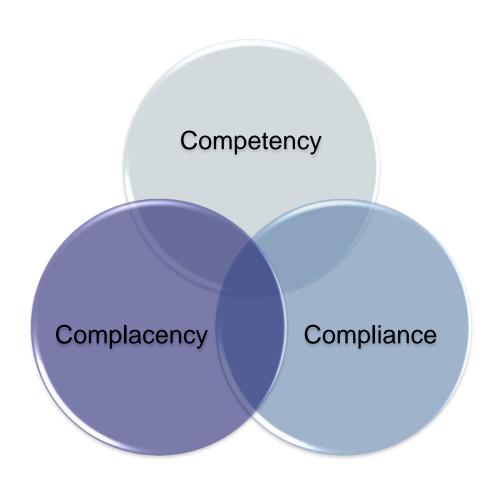


- Deferral of a safety critical maintenance activity parts not recieved
- Update to critical maintenance procedure crane wire replacement
- Organisation change Combine two positions
- Hardware Installation of modified/smaller pump impeller
- Update to the Change Management Manual



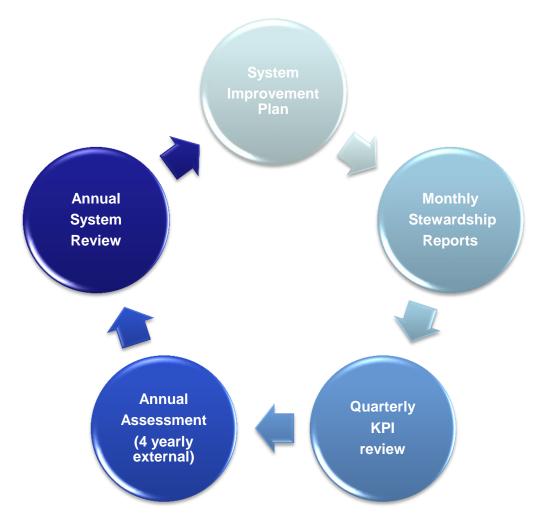
Challenges in Operations





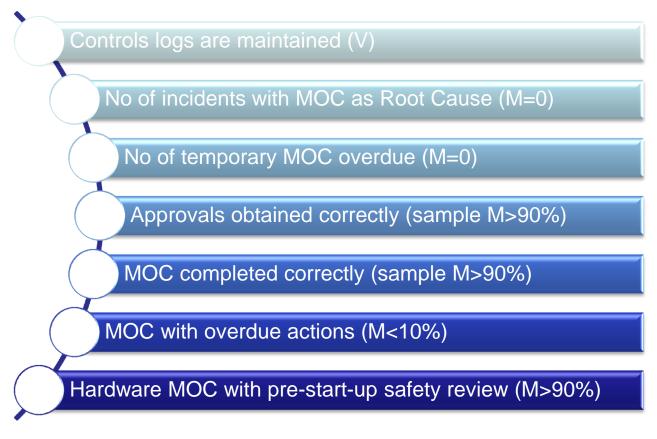
MOC Stewardship











 Period KPI reviews with System Owner, HSE system steering committe and Operations Leadership Team

Assessments

Principle: Assessment of the degree to which expectations are met is essential to improve Operations Integrity and maintain accountability.

- Annual assessments
- Multidisciplinary teams, including external expertise
- Focus on effectiveness of the system
- Findings are resolved, documented and stewarded according to risk
- Governance process in place



Concluding Remarks

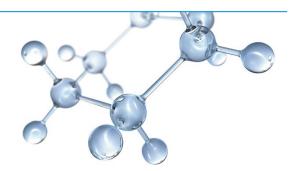


- Leadership HSE management system
- Change Recognition Skills
- Common Structured MOC Process
- Robust Governance Processes





Taking on the world's toughest energy challenges."



Operations Change Management

Fredrik Sønstabø Asset Manager - Jotun and Sigyn