Guidance for Developing and Managing Procedures

A COS Webinar
September 30, 2020
No discussion or agreements, either explicit or implicit, regarding prices of particular products, services, or commodities nor of individual company scenarios, business plans, purchasing plans, or pricing.
Special Thanks to the Webinar Contributors

Members of the COS SEMS Audit and Certification Committee

Kim Forgie, Anadarko/Oxy
Brad Smolen, BP
Jason Vanhaverbeke, Exxon Mobil
Rick Keen, Danos
Camille Peres, TAMU
Russell Holmes, COS
Center for Offshore Safety Releases New Document

COS-3-06 Guidance for Developing and Managing Procedures

COS has recently published COS-3-06, Guidance for Developing and Managing Procedures to address operating procedures and safe work practices.

Companies should use this document to implement a systematic procedure to:

- Involve the right personnel in operations,
- Incorporate appropriate risk controls; and
- Focus on end users at all stages.

COS will also be hosting a free webinar on this important new update on Wednesday, September 30th at 11am - 1pm EST/ 10am - 12pm CST. 
Register today.

The Center for Offshore Safety (COS) is an industry sponsored group focused exclusively on offshore safety on the U.S. Outer Continental Shelf (OCS). The Center serves the U.S. offshore oil and natural gas industry with the purpose of adopting standards of excellence to ensure continuous improvement in safety and offshore operational integrity.
COS Overview

The Center for Offshore Safety is designed to promote the highest level of safety for offshore drilling, completions, and operations through leadership and effective management systems addressing communication, teamwork, and independent third-party auditing and certification.

COS will achieve operational excellence by:

- Enhancing and continuously improving industry's safety and environmental performance,
- Ensuring public confidence and trust in the oil and gas industry,
- Increasing public awareness of the industry's safety and environmental performance,
- Stimulating cooperation within industry to share best practices and learn from each other, and
- Providing a platform for collaboration between industry, the government, and other stakeholders.
# TABLE OF CONTENTS

1. INTRODUCTION ........................................................................................................... 1  
2. DEFINITIONS .............................................................................................................. 3  
3. ESTABLISHING THE COMPANY GOVERNANCE, REQUIREMENTS AND COMPONENTS FOR DEVELOPING AND MANAGING PROCEDURES .................................................................................................................. 4   
   3.1. ESTABLISHING GOVERNANCE ........................................................................... 6  
   3.2. ESTABLISHING REQUIREMENTS ...................................................................... 6  
   3.3. ESTABLISHING THE COMPONENT(S) THAT MEET THE REQUIREMENTS ............. 7  
      3.3.1. Triggers to Creating Procedures .................................................................. 7  
      3.3.2. Risk Controls ......................................................................................... 8  
      3.3.3. Personnel Developing, Approving, Maintaining, and Using Procedures ........ 9  
      3.3.4. Procedure Types, Content, Conventions, Delivery, and Communication ....... 11  
      3.3.5. Developing, Documenting, and Approving Procedures ......................... 12  
      3.3.6. Periodic Verification and Validation ..................................................... 13  
      3.3.7. Procedure Access and Use ..................................................................... 14  
      3.3.8. Requested Deviations from Procedures ............................................. 15  
      3.3.9. Problems with Procedures .................................................................... 16  
      3.3.10. User Engagement .............................................................................. 16  
      3.3.11. Deficiencies and Improvement Opportunities ..................................... 17  
      3.3.12. Managing Changes to Procedures .................................................... 17  
4. PROCEDURE DEVELOPMENT WORKFLOW CHART .............................................. 18
Safety Performance Indicators

Operating Procedures or Safe Work Practices year over year tagged as areas for improvement.
Timeline for Development

- **5/1/2018**: PWG Terms of Reference Approved
- **9/19/2018**: Present Procedure Flow Chart at 2018 COS Forum
- **9/18/2019**: Present Draft Document at 2019 COS Forum
- **9/18/2019 - 12/31/2019**: Core and Breakout WG Meetings – Finalize Guidance for Developing and Managing Procedures
- **7/30/2020**: Document Published
- **10/29/2020**: Webinar
- **COS Board Direction to Establish PWG**
- **5/1/2016 - 5/1/2018**: Analyze COS LFI Data
- **9/30/2018 - 8/16/2019**: Core and Breakout WG Meetings – Draft Guidance for Developing and Managing Procedures
- **5/22/2018 - 7/1/2018**: Establish Reference Definitions: What is a Procedure
- **1/1/2020 - 6/30/2020**: COS Board Approval to Format for Printing Guidance for Developing and Managing Procedures

**Key Dates**
- 1 November 2017
- 30 October 2020
Introduction

• Four Stages
• Systematic Development
• Predictable Outcomes
Definitions

Component – A policy, standard, practice, process, procedure, or control

Convention – The format, writing style, and pictorial style to be used in the preparation of a document
Definitions

Procedure – Approved and documented instructions about a specific task or activity that is used to enable the safe and consistent execution of that task or activity

Validate – To demonstrate that the procedure will consistently yield the desired results

Verify – to demonstrate that the procedure can be consistently performed as written
Establishing Governance

• Structure, Processes, Requirements, and Components

• Define requirements and components to meet requirements
  • Of Company
  • Of Regulatory

• Cover all aspects of procedure development and management
Establishing Requirements

• API RP 75, 4th Edition

• Procedures Element
  • 12 Expectations
  • “Manage risk...through...use of procedures”
Section 3.3 ESTABLISHING THE COMPONENT(S) THAT MEET THE REQUIREMENTS

The Company establishes components for how the requirements will be met.

• Component – a policy, standard, practice, process, procedure, or control
Section 3.3.1 TRIGGERS TO CREATING PROCEDURES

Identifying the activities and tasks which require procedures

- Determine criteria that trigger the creation of a procedure

- Typical procedural triggers:
  - Regulatory and legal requirements
  - Contractual requirements
  - Risk Assessments
  - Activity or task analysis
  - Changes
  - Performance outcomes
  - Findings and learnings
Section 3.3.2 RISK CONTROLS
Incorporating risk controls from risk assessments for the identified activities and tasks and other applicable sources into procedures

- When is risk assessment done?
Section 3.3.2
RISK CONTROLS (cont’d)

RISK CONTROL

• Who should be involved?
• What are the outcomes of a risk assessment?
  • type of procedure
  • knowledge and skills needed to develop and manage the procedure
  • risk controls to be incorporated into the procedure
Factors to consider in determining the type of procedure and level of detail needed:

- Consequences of incorrect execution,
- Nature of the work,
- Frequency the work is performed,
- Complexity of the work,
- Work duration,
- Length of the procedure
Identify personnel who understand;
• Roles, Responsibilities, Authorities, Knowledge and skills

Capabilities;
• Develop, approve, maintain and use the procedures.

There are typically three positions:
• Coordinator
• Subject Matter Expert
• User
This illustration shows the useful sequence of steps required to identify the need, the type, writing, implementing and maintain the procedure.
A generic view of the level of knowledge and skills for given roles and function

<table>
<thead>
<tr>
<th>Role</th>
<th>Procedure Development Process</th>
<th>Activity / Task Design and Purpose</th>
<th>Activity / Task Implementation</th>
<th>Technical Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinator</td>
<td>Expert</td>
<td>Awareness</td>
<td>Awareness</td>
<td>Basic</td>
</tr>
<tr>
<td>Subject Matter Expert</td>
<td>Basic</td>
<td>Expert</td>
<td>Basic</td>
<td>Basic to Expert</td>
</tr>
<tr>
<td>User</td>
<td>Awareness</td>
<td>Basic</td>
<td>Expert</td>
<td>Awareness</td>
</tr>
</tbody>
</table>
## Level of responsibilities and knowledge and skills for Procedure Users

<table>
<thead>
<tr>
<th>Role - Phase</th>
<th>Responsibilities</th>
<th>Knowledge and Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procedure User – Pre-Execution</strong></td>
<td>Stop use if not applicable to work conditions</td>
<td>• Activity or Task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activity or Task Procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Situational awareness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Stop Work process</td>
</tr>
<tr>
<td></td>
<td>Use deviation process, if applicable</td>
<td>• Deviation process</td>
</tr>
<tr>
<td><strong>Procedure User - Execution</strong></td>
<td>Execute as written</td>
<td>• Activity or Task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activity or Task Procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Procedure proficiency in use</td>
</tr>
<tr>
<td></td>
<td>Assess application and validity of procedure during use</td>
<td>• Activity or Task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activity or Task Procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Procedure expected results</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Situational awareness</td>
</tr>
<tr>
<td><strong>Procedure User – Post Execution</strong></td>
<td>Review procedure for continual improvement opportunities</td>
<td>• Activity or Task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Activity or Task Procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Procedure expected results</td>
</tr>
</tbody>
</table>
Section 3.3.4 PROCEDURE TYPES, CONTENT, CONVENTIONS, DELIVER, AND COMMUNICATION

Determining the type, content, conventions, method of deliver, and communication of procedures, taking into account the procedure users
Section 3.3.5 DEVELOPING, DOCUMENTING, AND APPROVING PROCEDURES

Developing, documenting, and approving procedures

Writing

Documenting

Approving

Verifying & Validating
Section 3.3.6 PERIODIC VERIFICATION AND VALIDATION

Initially and periodically verifying procedures can be performed as documented and validating they will consistently produce the desired results.
Section 3.3.7 PROCEDURE ACCESS AND USE

*Accessing and using procedures as documented*

- **Who** are the users? Procedures users are:
  - Developers, managers, users

- **What** should they access? Versions of procedures that are:
  - Current, approved, controlled versions

- **Controlled versions**
  - Electronic format
  - Contingency plan for system outage
Section 3.3.7 PROCEDURE ACCESS AND USE (cont’d)

• **Why** use procedures?
  • Good practice
  • Set up for success
  • Capture of institutional knowledge

• **How** to use procedures?
  • Review prior to use and have in hand during execution if appropriate
  • When multiple shifts, allow time for complete shift handover
Section 3.3.8 REQUESTED DEVIATIONS FROM PROCEDURES

Managing requested deviations from procedures

- Correct procedure, but cannot use it in current conditions.
- Request for deviation from procedure necessary.
- Should have formal component to manage requested deviations.
- Expedited approval may be needed.
Section 3.3.9 PROBLEMS WITH PROCEDURES

Responding to and communication when procedures cannot be performed as documented or when procedures produce an unintended result

Should have component to:
Respond, address concern, and communicate resolution

Good practice might include:

| Stopping or pausing activity | Determining from where problem stems | Engaging appropriate individuals | Consider risks from solution |

All above should incorporate feedback loops

Camille Peres
Regarding problem responses

- Users should feel confident
  - concerns are communicated and addressed
  - those affected are aware

- Companies need clear and reliable method for
  - communicating concerns; receiving feedback

- Methods may include:
  - documenting concerns
  - recognizing to the user that concern has been documented
  - providing written feedback to user who raised concern regarding resolution
Section 3.3.10 USER ENGAGEMENT
Engaging procedure users when verifying and validating procedures

User involvement is critical

Users provide valuable information

Engage users
as early as possible
with varying degrees of experience and
from multiple facilities
for verification and validation
Section 3.3.11 DEFICIENCIES AND IMPROVEMENT OPPORTUNITIES

Resolving identified deficiencies and improvement opportunities in procedures, including those identified from internal and external learnings

- Undergo constant scrutiny
- Reporting deficiencies and improvement opportunities
- Minimize the gap between work as imagined versus work as done
- Respond to and resolving deficiencies to gain User trust and confidence
- After-action reviews
- Assess emerging risk
• Periodic review under a document control system
• Changes in activity or task may prompt a formal management of change.
• Three types of changes:
  • Technical
  • Organizational
  • Administrative
• Mergers and acquisitions
• Good practice: notify users when procedure is undergoing revision
Join Us!

COS Annual Forum
November 10-12
Registration Information:  www.centerforoffshoresafety.org

- Spotlights on Excellence – finalists for the 2020 COS Safety Leadership Award
- Conversations with BSEE and USCG
- API RP 75 4th Edition
- Process Safety
- Breakout sessions
  - SEMS Maturity
  - Mechanical Lifting
  - Life Boats
  - COVID

— Brandy Harrington —
Questions & Answers
<table>
<thead>
<tr>
<th>Participants in Development of the Good Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah Acton, Baker Hughes</td>
</tr>
<tr>
<td>Frank Adamek, Adamek Engineering</td>
</tr>
<tr>
<td>Brady Austin, Consultant</td>
</tr>
<tr>
<td>Michael Batiste, Schlumberger</td>
</tr>
<tr>
<td>Christine Cobb, ExxonMobil</td>
</tr>
<tr>
<td>Scott Coughlin, Subsea7</td>
</tr>
<tr>
<td>Cameron Craig, Pacific</td>
</tr>
<tr>
<td>Paul Delgado, BHP</td>
</tr>
<tr>
<td>Kim Forgie, OXY</td>
</tr>
</tbody>
</table>

www.centerforoffshoresafety.org