# Continual Improvement of SEMS Auditing A COS Webinar



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# **Center for Offshore Safety**



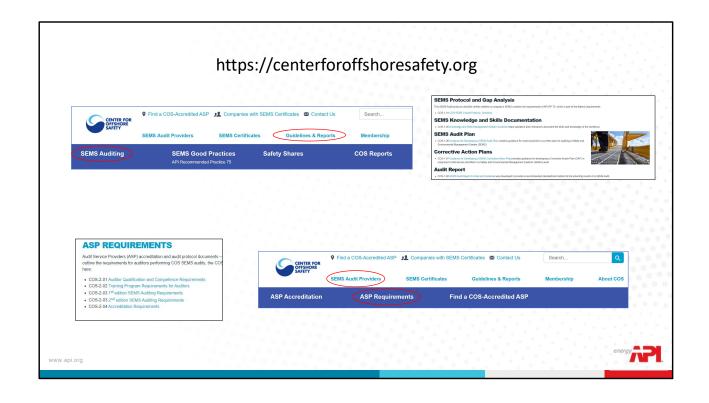
COS Publishes 4 Documents on Safety and Environmental Management System Auditing

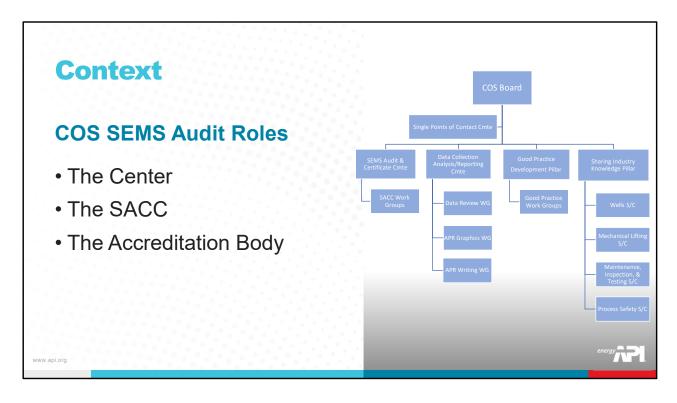


### **AGENDA**

- COS-2-03 Requirements for Third-Party SEMS Auditing
- COS-1-06 Guidance for Developing a SEMS Audit Plan
- COS-1-08 SEMS Audit Report Format and Guidance
- COS-1-07 Guidance for Developing a SEMS
  Corrective Action Plan
- COS-2-05 Requirements for COS SEMS
  Certificates
- BSEE Perspective
- Q&A Session







- I'll be providing some context for the documents being discussed today, and then will review the 2<sup>nd</sup> Edition of COS-2-03: SEMS Auditing Requirements, before turning it over to others to discuss the three good practices.
- Yesterday marked the 10-year anniversary of the Deepwater Horizon incident.
- We'd like to observe a moment of silence to stop and remember what happened that night, and then reflect on the loss of 11 individuals and what their families, friends and colleagues have suffered through, and continue to deal with, 10 years out.
- Thank you. We should never forget so that we never lose safety as a value in all we do.
- There were many lessons and recommended actions for industry and government to improve the management of safety and environmental risks to prevent another major incident. One of industry's responses was the creation of the COS. Another response was the requirement that operators in the U.S. Outer Continental Shelf implement a management system to systematically manage these risks.
- An important part of this management system is to assess its current state to assure that it is effective. And one of those mechanisms is a management system

audit.

- So first, some information on the roles of COS as they pertain to SEMS Auditing.
- SEMS is at the core of all of COS' work and the role of independent 3<sup>rd</sup> party auditing is emphasized within COS' Mission statement in promoting the highest level of safety in offshore activities.
- Amongst the first work published by COS were documents covering SEMS auditing and Audit Service Provider accreditation requirements.
- SEMS continues to govern COS activities, whether it be through Auditing; Data Collection, Analysis and Reporting; Developing Good Practices; or Sharing Industry Learnings.
- COS has a standing committee for SEMS Audit and Certification, which is referred
  to as the SACC. It is charged with developing, maintaining and continually
  improving auditing requirements and good practices. It also supports
  implementation of those requirements and good practices.
- The membership of the Committee includes Subject Matter Experts from COS members and affiliate members, Audit Service Providers, and BSEE.
- Through its Memorandum of Understanding with BSEE, COS also functions as the
  Accreditation Body for accrediting ASPs. This Accreditation Body (referred to as the
  AB) functions independently of COS members and follows an Accreditation
  Management system that meets the requirements of BSEE and ISO 17021, the ISO
  standard for accreditation bodies. The AB is authorized by the MOU to review ASP
  and accredit those qualified to conduct the BSEE SEMS audits required in the US
  Code of Federal Regulations. As we'll hear later, an accredited ASP is also required
  for audits of companies aiming to merit a COS SEMS Certificate.

# **SACC SEMS Audit Documents**

- COS-1-01 COS SEMS II Audit Protocol (Checklist)
- COS-1-03 Contractor Agreement Letters
- COS-1-04 COS SEMS Terms-Definitions Clarification Document
- COS-1-05 Knowledge & Skills Documentation Worksheet
- COS-2-03 Requirements for Third-Party SEMS Auditing & Certification of Deepwater Operations, 1<sup>st</sup> edition
- COS-3-03 Guidelines on Maturity Self-Assessment
- COS-1-09 Auditor Guidance (draft)
- COS-3-05 Measuring SEMS Effectiveness (draft)





- The slide shows the current documents that are managed by the SACC.
- The first 6 have been published and are available to all stakeholders at no cost from COS' web site.
- The last two are works in progress and are expected to be completed and published in the near future.

# **COS Accreditation Body SEMS Audit Documents**

- COS-2-01 Qualification & Competence Requirements for Audit Teams and Auditors Performing Third-Party SEMS Audits of Deepwater Operations
- COS-2-02 Training Program Requirements for Auditors and Audit Team Leads Performing Third-Party SEMS Audits of Deepwater Operations
- COS-2-04 Requirements for Accreditation of Audit Service Providers Performing Third-Party SEMS Audits & Certification of Deepwater Operations



- Functioning independent of the COS members, the COS AB manages the 3 documents shown on this slide.
- While final decisions on content of these documents are controlled by the AB, the AB seeks input from its stakeholders for continual improvement of their content to assure delivery of quality ASPs and audits.
- The AB is currently revising these documents and will be the topic of a future workshop for its stakeholders.

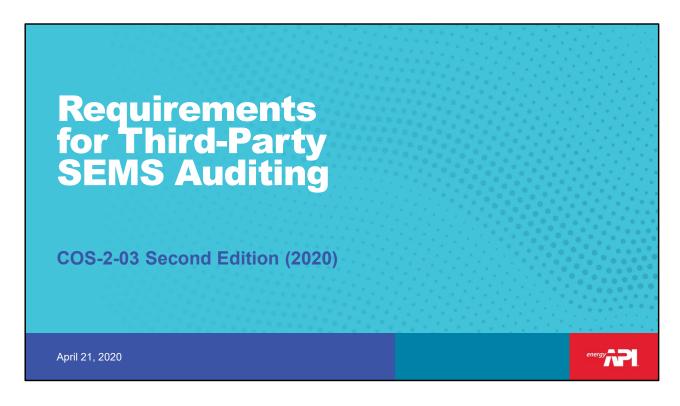
# For Today's Webinar

- COS-2-03 Requirements for Third-Party SEMS Auditing, 2<sup>nd</sup> Edition
- Launch of three new good practices
  - COS-1-06 Guidance for Developing a SEMS Audit Plan
  - COS-1-08 SEMS Audit Report Format & Guidance
  - COS-1-07 Guidance for Developing a SEMS CAP
- COS-2-05 Requirements for COS SEMS Certificates





- Today, we are going to cover 4 COS documents.
- One is the result of the revision of 1<sup>st</sup> Edition of COS-2-03: Requirements for Third-party SEMS Auditing and Certification of Deepwater Operations. The 2<sup>nd</sup> Edition of COS-2-03: Requirements for Third-Party SEMS Auditing 2nd Edition, focuses only on the SEMS auditing requirements. A new document is being developed to address the Requirements for COS SEMS Certificates and we will hear a little about that later as well.
- Three good practices have been developed to support the COS-2-03 SEMS Auditing requirements, in the areas of SEMS Audit Planning, Audit Report Format and Corrective Action Plans.
- The SACC is now beginning work on completing additional COS documents covering Auditor Guidance and Measuring SEMS Effectiveness.
- So now let's cover COS-2-03: Requirements for Third-Party SEMS Auditing 2<sup>nd</sup> Edition.



- The 1st Edition of COS-2-03 has been in place since Oct 2012.
- It was incorporated by reference by BSEE as part of the SEMS II rule, stating that BSEE-required SEMS audits must meet or exceed the auditing criteria found in COS-2-03. The COS Certificate aspects of the original COS-2-03 were not included in the BSEE requirements and was one of the reasons for separating the auditing requirements from the certificate requirements in the new documents.
- The SACC began work several years ago to address the new requirements that BSEE included in SEMS II, including that 'You must submit an audit report of the audit findings, observations, deficiencies identified, and conclusions ...' which were not covered explicitly by COS-2-03 nor were defined by BSEE.
- COS was able to achieve approval of the definitions of these terms, and some other terms, in Oct 2018.
- Last year, the SACC began to revise COS-2-03 with its drivers of bringing greater clarity and alignment of its content; incorporating new terms and definitions aimed at improving the quality and consistency of audits. Even the scope needed to be updated, as the original document approved in 2012 was aimed at Deepwater Operations.
- As stated earlier, it was decided that the original COS-2-03 document should be

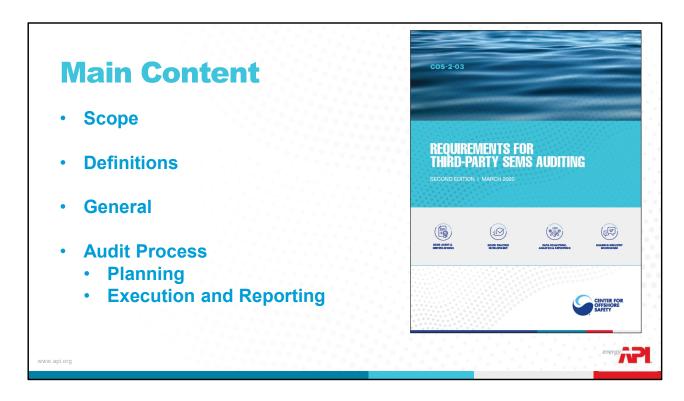
separated into two documents, the first containing the SEMS Auditing Requirements, and a new document, COS-2-05, which would cover only the COS SEMS Certificate Requirements.

# Sources of Key Changes to COS-2-03

- SEMS II
- API RP 75, 4<sup>th</sup> edition
- 3 Rounds of Audit Learnings
- Good Practices



- /API
- The SACC used the sources listed here to guide the revision of both documents.
- It now aligns more effectively with SEMS II for Operators in the US OCS who are required to conduct and respond to BSEE required SEMS audits.
- The SACC ensured alignment with the new Assessment and Improvement Element within the newly published 4<sup>th</sup> Edition of API RP 75.
- There was certainly much to learn as well, from 3 rounds of auditing since 2013 to inform where improvements were needed – mostly in providing clarity in definitions to enable consistency in auditing and identifying and writing quality audit results.
- The SACC also looked to eliminate the potential for confusion by bringing greater distinction to pure systems auditing vs. giving advice or making recommendations.
- Finally, Auditees, ASPs and BSEE had implemented good practices over the 6 years of auditing that needed to be incorporated where appropriate.



- The 2<sup>nd</sup> Edition of COS-2-03 has been slightly restructured from the 1<sup>st</sup> Edition. The first step of course, was to strip out the COS SEMS Certificate content.
- The main content we want to cover today is the changes and enhancements in Scope/Application, Definitions, General, and Audit Process.
- Under Scope/Applications, the document is now applicable globally and is no longer restricted to COS members. It applies to all offshore operations, not just Deepwater. It remains linked to the latest Edition of API RP 75 and it broadens its application to all companies working in the oil and gas industry, not just Operators. The Scope now uses the term Asset, instead of Facility, when it requires 15% coverage.
- We'll cover Definitions in more detail in a second.
- The General Section now has 3 requirements that:
  - only an accredited ASP can conduct a SEMS audit,
  - the audit must verify that a SEMS is established, implemented and maintained – Terms clearly defined and aligned with RP 75 4<sup>th</sup> Edition, and
  - that the audit should be executed under a written contract between the Auditee and the ASP.
- Finally, the Audit Process has been enhanced with the changes in both the

Planning and Execution Phases which we will cover in detail after the Definitions.

### **Terms**

- SEMS II
  - Audit Result
    - Conclusion
    - Conformity
    - Deficiency
      - Finding Level 1
      - Finding Level 2
    - Observation
    - Strength
  - Audit Close-Out Meeting
  - Corrective Action Plan

- API RP 75, 4th Edition
  - Asset
  - Component
  - Established
  - Implemented
  - Maintained





- So, now let's turn to the Terms and Definitions in the 2<sup>nd</sup> Edition.
- There have been a number of additions, changes and deletions from the first edition, all expected to enable greater consistency in the audit process and in the consistency and comparison of audit results. we will cover in some detail the Terms on the left of the slide.
- The revised document defines audit results as including a Conclusion, Conformities, Deficiencies, and Observations. Further, we've defined Deficiency as being either a Finding Level 1 or a Finding Level 2. If agreed to by the ASP and Auditee, Audit Results can also include Strengths.
- Audit Close-Out Meeting and CAP definitions were also developed to help stakeholders to be consistent in the audit process and response.
- The Terms on the right side of the slide are referenced so that you are informed that they originate from the 4<sup>th</sup> Edition of API RP 75 and that COS decided to use these Terms in anticipation of it being published. You will see that we use them in some of the requirements in 2-03.

# **Definitions**

- Conformity Meets or exceeds the management system element or its Components
- Deficiency Either a Finding Level 1 or Finding Level 2. Deficiencies require corrective actions to be included in a Corrective Action Plan.
  - **Finding Level 1** the Establishment, Implementation, or Maintenance of a management system element is not conforming with requirements such that the Element cannot achieve its intended results. A Finding Level 1 requires Corrective Action(s) be included in a Corrective Action Plan.
  - Finding Level 2 meets one or both of the following criteria:
    - An Element can achieve its intended results, but the Establishment, Implementation, or Maintenance of a Component(s) within the Element only partially conforms to the requirements for the Component and is indicative of a systemic issue.
    - The functionality of an individual major incident prevention or mitigation control (as defined by the auditee) is impaired.
    - A Finding Level 2 requires corrective action(s) be included in a Corrective Action Plan. Note: Individual Observations within separate elements may indicate a systemic issue that can result in a Finding Level 1 or 2.

- So now to the key changes within 2-03.
- The first edition focused on Deficiencies, but like BSEE, we learned that
  evaluating and reporting demonstration of conformance may be as important as
  the Deficiencies, to more fully understand where a company stands on
  Establishing, Implementing and Maintaining their SEMS. We, hence, have defined
  a Conformity.
- A Deficiency is now defined as either a Finding Level 1 or a Finding Level 2.
- A Finding Level 1 essentially replaces a Non-conformity from the 1<sup>st</sup> Edition and provides greater specificity. A Finding Level 2 essentially replaces an Area of Concern, again with greater specificity. All Deficiencies require corrective actions that are captured in a CAP.
- You'll notice that "Opportunities for Improvement" has been removed from the definition of an Audit Result and from the document.
- That said, there are some examples provided in the Audit Report Format good practice.

## **Definitions**

- Observation Evidence that supports a Conformity or a Deficiency
- Conclusion A subjective assessment of the state of the establishment, implementation, and maintenance of the management system based on identified conformities and deficiencies.





- The last two definitions are Observation and Conclusion. It is important to the Auditee and the regulator, if applicable, that the ASP provide evidence of both Conformities and Deficiencies.
- We have defined an Observation as this evidence. Observations can vary from
  documentation, reference to documentation, quotes from interviews, data, etc.
  Observations must be sufficient to provide the Auditee and regulator, and future
  Auditors, confidence that a Requirement has been satisfied in the case of a
  Conformity, and that a Deficiency is clearly understood so that an Auditee can
  develop effective corrective actions.
- We have seen great variance in Audit Reports not only in the Conformities and the Deficiencies, but also regarding a Conclusion, ranging from one sentence, to essentially restating all of the Conformities, Deficiencies and Observations. We have provided a definition of a Conclusion. Again, we were planning to use an exercise to demonstrate good and bad practice in writing a Conclusion and will look for your feedback as to whether you would like to dig deeper into this in the future.

# **Audit Process – Additional or Enhanced Requirements**

- Verify SEMS is Established, Implemented, and Maintained and in conformance with most recent edition of API RP 75 (unless an earlier version is mandated by applicable regulation)
- Lead Auditor
- Effectiveness of Corrective Actions

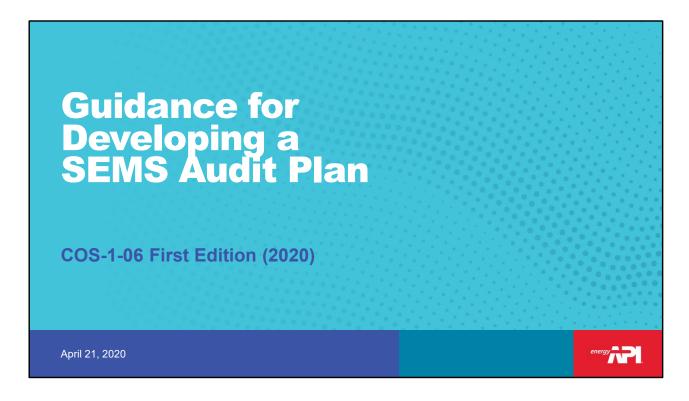




- Next, we'd like to cover some specific requirements in COS-2-03 in the Audit Process.
- The first is the ultimate purpose of the SEMS audit. It is to verify that the SEMS is Established, Implemented and Maintained in conformance with applicable SEMS regulations and the Standard. ASPs should be verifying that the Auditee is checking that the SEMS is actually effective, meaning that it is achieving its desired results. This is an enhanced Expectation set in the 4<sup>th</sup> Edition of RP 75 but is also covered in the 3<sup>rd</sup> Edition when an Auditee completes a SEMS Performance Review.
- Next is the requirement that the Lead Auditor must be an employee, representative or Agent of an ASP and must be independent of the Auditee.
- Good planning leads to good execution, so COS-2-03 expects that the ASP and the Auditee agree on an audit plan before the scheduled execution of the audit. Further, the audit plan needs to meet the requirements in COS-1-06, Guidance for Developing a SEMS Audit Plan.
- COS-2-03 also specifies that the ASP will report on the audit in accordance with the requirements of COS-1-08 SEMS Audit Report Format and Guidance.
- The audit report shall provide a complete, accurate, concise, and clear record of

the audit and Audit Results – those being:

- Conformities
- Deficiencies
- · Conclusion, and the
- Observations that support the Conformities, Deficiencies and the Conclusion.
- And last, the ASP must report on their evaluation of the implementation and
  effectiveness of Auditee's Corrective Actions that addressed deficiencies from the
  previous SEMS audit. It is important to understand and verify that the Auditee is
  continually improving its SEMS, in this case, correcting Deficiencies.
- COS has removed the requirement to use COS-1-01 during the conduct of the audit. The purpose of removing this requirement is to continue to move toward a systems approach to auditing.



- We will be covering the COS Audit Guidance for Developing a SEMS Audit Plan. This is the first edition of the document. It is intended to be a step by step guide for creating efficient, compact, and complete audit plans.
- The guidance has several acronyms and definitions, and while we am not covering those during this presentation, they are explained within the document.

# **Scope and Introduction**

The COS has developed COS-1-06 *Guidance for Developing a SEMS Audit Plan* to ensure the effective use of resources during an audit.

- · Audit Plan to identify resources and when they will be needed
- · Guidance can be used for any SEMS Audit, including audits intended for a COS SEMS certificate
- · Audit Planning is a joint responsibility between auditee and auditors
- · It should consider:
  - Approach
  - · Consider stakeholders
- · Audit Plan should be distributed to relevant parties in advance and as required
  - · Relevant departments within the Operator's Organization
  - ASP, Audit Team
  - Contractors (as appropriate)
  - · BSEE (when applicable, 30 days in advance)



energy API.

- One of the challenges to ensure an efficient audit is having the relevant persons, assets, and equipment available to the auditors at the appropriate date and time. This challenge can be managed by having a clear plan of who and what resources will be needed, and when they will be needed. This guidance describes what information should be included in each section of the Audit Plan to make the best use of the relevant resources.
- When applicable, it also seeks to standardize and ensure the inclusion of the minimum information required for BSEE's approval of the plan.
- However; the guidance can be used for any SEMS audit. So, it can assist when planning Internal, Contractors, or Certificate audits under the COS requirements.
- Preparing an effective Audit Plan is incumbent upon the auditee and the auditors. So, it is crucial to ensure sufficient and transparent communication between the two from the very start of the process.
- The auditor and the auditee should agree on:
  - The format of the Audit Plan
  - The approach and flow of the audit
- All while at the same time, considering the expectations of the relevant stakeholders.

- These stakeholders can include:
  - The different departments within the auditee's organization
  - The ASP and the Audit Team
  - · Contractors and of course,
  - And BSEE or other regulators (when applicable)
- It is important to remember that the Audit Plan should be distributed to the relevant stakeholders in advance and as required (in the case of a formal US OCS SEMS compliance audit, BSEE should be advised at least 30 days in advance of the audit).

### Audit Plan Should Include the following sections:

- Objective
  - · Verification that all of the SEMS elements are:
    - Incorporate all requirements of API RP 75
    - · Established, Implemented, and Maintained
  - · Auditee evaluates the suitability, adequacy, and effectiveness of the SEMS
  - Verification of completeness of previous SEMS Audit CAPs
- Scope
  - Type of Operations
  - · Assets (not in detail)
  - Audit Period
- Criteria
  - SEMS II
  - API RP 75
  - Auditee's Own SEMS
  - Document any elements to be focused on or excluded





- So, let's look at the specific sections included in the guidance:
  - The Objective
    - The Objective of the audit should describe the verification:
      - That the SEMS includes all sections of API RP 75
      - That the SEMS elements are Established, Implemented and Maintained
      - That the auditee evaluates the suitability, adequacy, and effectiveness of the SEMS
      - And that the Corrective Action Plans from the previous SEMS Audit have been completed or are on schedule for completion
    - It is important to note that any exceptions or variances to these objectives should be clearly explained and justified.
  - The Scope
    - The scope defines the "reach" of the audit. That is to say, what the
      audit will cover. Therefore, the scope should include the types of
      operations, work activities, and assets to be audited as well as the
      Audit Period (usually from the previous SEMS audit to the

present).

• It is not necessary to go into much detail of the operations or assets in the scope section, as these will be described in more detail in a different section of the Audit Plan.

### Audit Criteria

- The audit criteria are the specific requirements for which auditors will seek confirmation. These include:
  - SEMS II
  - API RP 75
  - The Auditee's own SEMS requirements, (Policies, procedures, permits)
  - Any requirements of special focus or exclusions agreed upon between the Auditor and Auditee should be documented in this section.

### **Audit Plan Should Include the following sections**

- · Identification of the Audit Team
  - Audit Team Lead (ATL) and Auditors (demonstrate compliance with COS-2-01 and COS-2-02)
  - Specific information on ATL (Certifications)

	Team Role	Affiliation	Brief description of qualifications*
Auditor Name			
[Insert Team Leader name]	Audit Team Lead	ASP	(Include certification type and number and third-party certification body)
[Insert Team Member name]	Team Member	ASP or Company	
[Insert Team Member name]	Team Member	ASP or Company	

- Identification of the Assets to be Audited
  - At least 15%
  - · Maintain a list of all assets and be ready to justify selection
  - Selection based on risk (Operations underway, H2S, etc)
  - Different from previous audits (if possible)
  - Include Possible Dates



- Identification of the Audit Team
  - The audit team should be composed of an Audit Team Lead and other auditors (that meet the specific requirements established in the applicable COS documents).
  - Information on the Audit Team Lead's certification (like the type of certification, certification number, etc.) should be included in this section as well as all of the team member's names, roles, and experience.
  - The guidance includes an example of a table in which all of this information can be entered.
- Identification of the Assets to be Audited
  - It is in this section that more detailed information about the assets to be audited is entered.
  - Tables are an excellent way to include specific information on the assets, and the guidance provides typical information that should be included.
  - The Audit Plan should include a minimum of 15% of the total

- auditee's existing assets
- It is recommended that the auditee and auditor maintain a list of all
  of the existing assets and be ready to justify why the ones to be
  audited were selected.
- The selection should be performed following a risk analysis which should include:
  - The operations underway on the assets (like Drilling, Production, P&A, Well Decommissioning or Structure Removal)
  - Any Special Risk (like potential exposure to H2S)
  - History of Accidents
  - Results of Previous Audits
  - Or if explicitly required to be visited by the authorities
- Assets audited in previous audits should be avoided (whenever possible)
- It is most beneficial to include the intended date that each asset will be audited.
- We know that these dates might change, but to have a workable plan, target dates are necessary.

### **Audit Plan Should Include the following sections**

- Schedule Dependent on:
  - Audit Objective and Scope (number of assets to be covered)
  - Team Composition (number of auditors that will participate on the audit)
  - Time
    - · For auditors to prepare, execute and report on the audit
    - For auditors to learn the auditees' SEMS
    - · Auditee's specific logistics
  - ASPs use their own procedures to determine Audit Duration
    - · Consider the risks of the assets to be audited
    - Experience
    - Detailed understanding of the activities at each asset

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### Schedule

- The audit schedule will be dependent on the objective and scope of the audit, as well as the audit team composition.
- In other words, the number and type of assets to be audited and how many auditors will be participating on the audit.
- As an example, drilling operations generally take more time to audit than production operations.
- The guidance further describes other factors that can impact the audit schedule and include:
  - Time for the audit team to prepare, execute and report the audit
  - Time for the audit team to learn the Auditee's SEMS structure and specific requirements
  - Auditee's specific applicable logistics (including travel time to/from assets) and of course
  - · Environmental conditions.
- The schedule has an impact on the overall audit duration.
   Although there is not a standardized process on how ASP's

- determine the audit duration, it is safe to say that most do it considering the risks of each of the assets to be audited and their experience in performing a meaningful evaluation at similar assets.
- Therefore, the audit team must have a detailed understanding of the specific activities that are taking place at each asset to fulfill the Objective of the audit.

### **Audit Plan Should Include the following sections:**

- · Audit Procedures
  - · How the audit is to be conducted
  - Unmanned Assets
    - · Description of how personnel responsible will be interviewed
    - Virtual or Electronic Audits Possible
- Confidentiality Requirements
  - · Clearly describe all confidentiality requirements consistent with COS requirements
- Report Contents and Format, Issuance, and Distribution
  - Covered in another section of the presentation
  - Include start and completion date of the audit, the audit report distribution list, and the schedule for audit report development, review, and completion

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### Audit Procedures

- The Audit Plan should include how the audit is to be performed.
   Each ASP may have a different approach to conducting the audit,
   but the plan should describe activities including:
  - How Work and Tasks will be observed
  - How Documents and records will be reviewed
  - How personnel will be interviewed
  - And how and when status discussions will be performed (aka status meetings)
- Unmanned Assets
  - For unmanned assets, the Audit Plan should describe how personnel responsible for those assets are to be interviewed (this could include visiting the manned asset that controls the unmanned ones, or virtual / electronic audits). In any case, the Audit Plan should describe how this is to be achieved.
  - If there is a significant number of unmanned assets, then sampling may be possible. However, the ASP should clearly

describe its sampling process.

- Confidentiality Requirements
  - The Audit Plan should clearly describe all confidentiality requirements, and these should be consistent with COS requirements established in COS-2-01 and address any specific concerns of the Auditee.
- Report Contents and Format, Issuance, and Distribution
  - I won't touch much on the report contents, issuance, and
    distribution as this will be covered by one of my colleagues.
    However, it is necessary that before the commencement of the
    audit, the ASP and the Auditee should determine the start and
    completion date of the audit, the audit report distribution list, and
    the schedule for audit report development, review, and completion.
    This should be recorded in the Audit Plan.

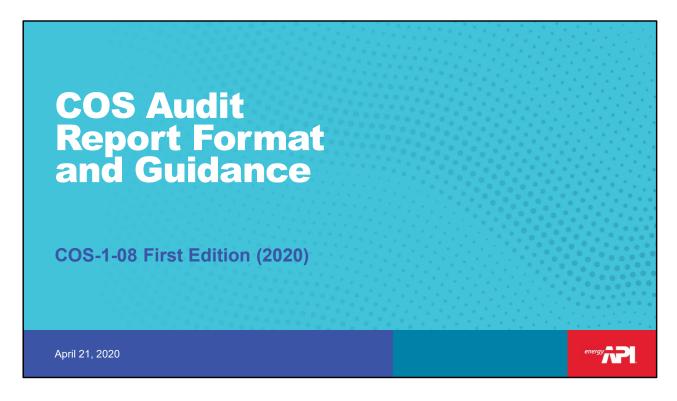
### **Audit Plan Should Include**

- Auditee-Specific Considerations
  - Logistics
  - · Special Safety Requirements
  - Language
- · Changes to Audit Plan
  - Mechanism for approval, documentation and communication of Audit Plan changes is to be included in the Audit Plan
  - Significant changes to the Audit Plan are to be communicated and approved by the BSEE

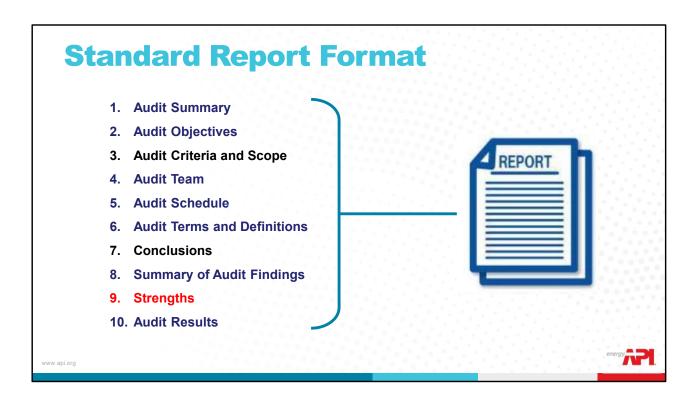




- Additional Auditee-Specific Considerations
  - The Audit Plan should include auditee specific considerations important to successfully completing the audit. Some examples include logistics, safety training (like potential H2S exposure training), and offshore travel requirements, to name a few.
- Changes to the Audit Plan
  - We all know that even the best plans many times need to be changed. This might include last-minute scheduling conflicts, weather issues, or helicopter mechanical issues (to name a few that have happened to me). A process should be established for agreeing on and documenting changes to the audit plan, as well as communicating these changes to relevant stakeholders.
- To summarize, a sufficiently detailed Audit Plan will ensure the efficient and effective use of resources and minimize frustration among the participants in the audit.



- [Scope and Application] The Center for Offshore Safety has developed COS-1-08 Safety and Environmental Management System (SEMS) Audit Report Format and Guidance, 1st Edition. This provides a standardized method of documenting and comparing results of SEMS Audits, and replaces COS-2-03-A&B Standard Audit Report Template. Following a standardized format will allow for both internal and external comparison with other SEMS audit reports though data collection.
- This new format and guidance can be used for any audit that meets the applicable requirements of:
  - API RP 75 Development of a Safety and Environmental Management Program for Offshore Operations and Facilities, 3rd Edition; and
  - COS-2-03 Requirements for Third-Party SEMS Auditing, 2nd Edition;
  - an audit intended for certification under COS-2-05 Requirements for COS SEMS Certificates, 1st Edition; and
  - may be adapted to meet local regulatory requirements.



First, we would like to provide a quick overview of the Sections within the new format. The new standard report format for SEMS Audits has 10 sections, including 7 sections with bold blue recommended text and tables, and 1 section that is optional, Section 9, Strengths.

The remaining 2 Sections, Section 3, Audit Criteria and Scope, and Section 7, Conclusions, both contain information that may vary widely from audit to audit and therefore no standardized text is provided; however, the recommended information in these sections should be included.

Of those 7 sections that contain recommended text and tables, the 2 sections with only recommended text include, Section 1, Audit Summary, and Section 2, Audit Objectives, which were already discussed and are similar to the Audit Plan. The remaining 5 sections have standardized tables, which we will be reviewing here in a more detail.

	nmenaea	lext	and Tables
4. Audit Team:			
Auditor Name	Team Role	Affiliation	Signature
	Audit Team Lead	ASP	
5. Audit Sched	lule:		
Audit Dates	Audit Activities		
	Office Audit(s)		
	15 6 11		
O A	and Definitions:		
6. Audit Terms			
6. Audit Terms Term	Definition		
	Definition		

Shown here, we have provided examples of the recommended tables in Sections 4 – 6. These are meant to organize data in a consistently clear format for review.

Specifically, Section 4's Audit Team table should include the Names, Roles, Affiliation to the ASP, and Signatures of all the Audit Team Members.

Section 5's Audit Schedule table should include the locations visited, such as Headquarters and Assets, and the dates each location was visited.

Section 6's Definitions table should include not only those terms defined in COS-2-03 *Requirements for Third-Party SEMS Auditing*, 2nd Edition, such as Conformity, Deficiency, and Finding Level 1 and Finding Level 2, but also any other terms used in the audit report that were agreed to between the Auditor and Auditee.

### **Recommended Text and Tables** 8. Summary of Audit Findings: **SEMS Element** Findings Level 1 Findings Level 2 Element 1 - General Element 2 - Safety and Environmental X Information Element # - ... Χ Element 9 - Pre-Startup Review X Х Element # - ... Χ **Totals** 2 3

Sections 8 and 9, provide an Auditee-specific view of the current status of their SEMS.

Section 8's Summary of Audit Findings table, shown here, provides the reader with a high-level view of the current effectiveness of the SEMS' implementation and maintenance, as well as what Elements of the Standard the Auditee needs to focus their attention on.

At the bottom of the table, you'll see that totals of both Finding Level 1 and Finding Level 2 are calculated.

A column for Strengths may be added and calculated as well, if identified and agreed to with the auditee.

# **Recommended Text and Tables**

#### 9. Audit Results:

#### Element 4 - Management of Change [250.1912/API RP 75 Section 4]

#### Areas of Conformity supported by Observation(s):

Operator B had established and implemented a process for Pre-Startup Review (PSR) [document number/title, revision number and revision date] that partially addressed regulatory requirements...

#### Finding(s) Level 1 supported by Observation(s):

The Auditee's written procedure for PSR was missing 3 of the 7 elements required by 30 CFR 250.1917 and API RP 75 Section 9 (i.e., confirmation that safety and environmental information was current, confirmation that hazards analysis recommendations had been implemented as appropriate, and confirmation that training of operating personnel had been completed).

The PSR of the XX Process at the ZZ platform on [Date] did not address whether the hazards analysis recommendations for the XX process had been implemented. When the XX process was started up on [Date], the undersized pressure relief valve was still in place.

#### Finding(s) Level 2 supported by Observation(s):

The Auditee's procedures for PSR were inconsistently applied between assets. The procedures utilized at 2 of the 4 assets visited at the time of the audit were not sufficient to assure an Effective PSR.

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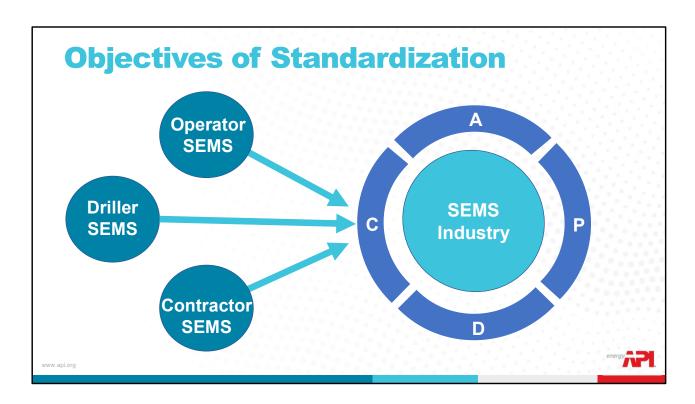


Section 9's Summary of Audit Results table, shown here, provides the reader with a deeper detailed review of the audit results with regards to the current effectiveness of the SEMS' implementation and maintenance, including statements of Conformity and any identified deficiencies. All should be supported by detailed Observations.

Shown here is an example from the guidance document where the statement of Conformity indicates that Operator B has in fact established and implemented a process for Pre-Startup Review; however, both a Level 1 and Level 2 Finding have been identified. This was due to:

- not all requirements of the Standard being met by the process;
- inconsistent and ineffective implementation of the process; and
- functionality of an individual incident mitigation control was

insufficient.



To summarize, we would like to share a few final thoughts.

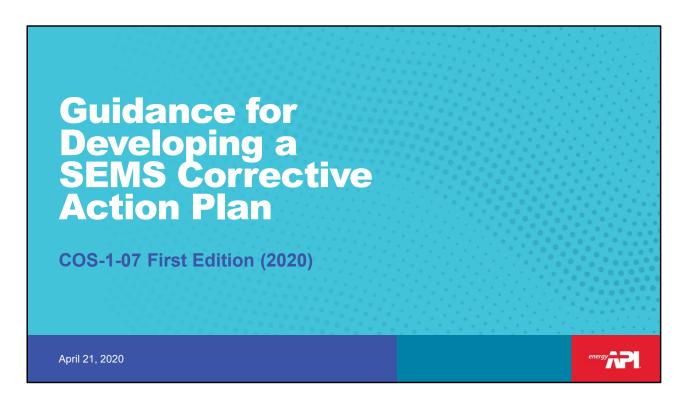
The types of operations, work activities, Assets, and Auditors will differ from Audit to Audit; however, the COS believes that this new report format will allow for comparison between, not only an organization's own Subject Audit Periods, but between and across the different types of operations, work activities, assets, and auditors over multiple Audit Periods.

Importantly, standardizing presentation and comparison of SEMS audit results will enable us to identify Audit Periods of progress, stagnation, and/or regression over time and under what geo-political circumstances such industry trends occurred.

We must broaden our objective from simply verifying if an Auditee's SEMS was effectively implemented and maintained, to statistically verifying if 'we', the SEMS industry, have effectively implemented and maintained SEMS and improved the safety and environmental performance for all stakeholders.

In doing so, we will have the necessary data to evaluate the industry, identify Deficiencies, determine Causes and contributing factors, and implement the

required Corrective Actions. That is the objective of these guidance documents... the Continual Improvement of SEMS.



We'll be reviewing the guidance included in the document "Guidance for Developing a SEMS Corrective Action Plan". All the graphics and examples included in these slides can be found in this document.

I want to point out that while this is geared towards developing effective corrective actions and Corrective Action Plans for a SEMS audit, the definitions and guidance included in this document are applicable to almost any type of corrective action plan. This was done deliberately, both to reflect the learnings industry has had over decades of auditing and to create a guidance that was flexible enough to be used by the wide variety of companies operating in our industry today.

## **Corrective Action Plan (CAP) – Definitions**

For the purpose of this discussion, Corrective Action Plan (CAP) is defined as "The written record of corrections and corrective actions associated with identified deficiencies, as well as those already completed at the time of producing the CAP."

- Purpose is to align, document, and track to resolution the corrective actions that will address any
  deficiencies found during the SEMS Audit
- · Corrections are immediate actions to eliminate the detected deficiency
- Corrective actions are action(s) to eliminate the cause of a detected deficiency
- Deficiencies are a Finding Level 1 or Finding Level 2
- Observations within separate Elements may indicate a systemic issue that can result in a Finding Level 1 or 2

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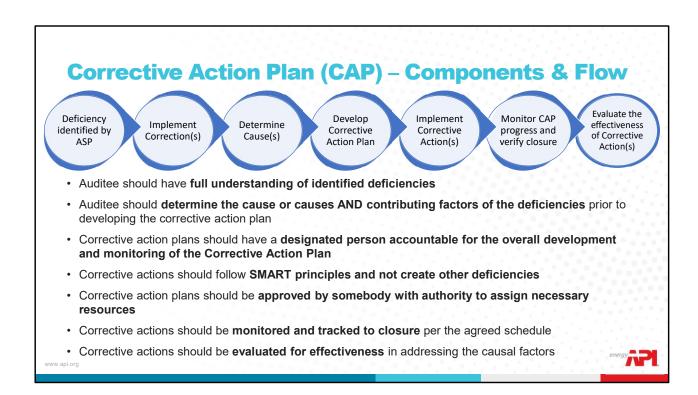


A Corrective Action Plan, often abbreviated CAP, is defined as the "The written record of corrections and corrective actions associated with identified deficiencies, as well as those already completed at the time of producing the CAP." The words in that definition were specifically chosen to reflect the essential elements of an effective Corrective Action Plan.

- 1. It is a written record. Whether this is printed or written hard copy, an electronic report, or something else, the corrective actions and associated plan are documented evidence of the actions, as well as the responsibilities around those actions.
- 2. It includes both corrections and corrective actions.
  - Corrections in this case are defined as the immediate actions to address and eliminate a deficiency; for example, all slings that were found to be expired were immediately taken out of service.
  - Corrective actions are the actions to eliminate the cause of the detected deficiency and are meant to address the systemic causes that led to the issue. To build on the previous example, a corrective action may be to identify and resolve why there were expired slings being used in the first place.

- Sometimes, these are the same the correction that was made to eliminate the deficiency also fixed the underlying systemic issue, or there was no systemic issue underlying the deficiency. Other times, these are different, and the correction is more of a fast fix to ensure safe and environmentally sound operations while the underly cause is being determined.
- 1. It is meant to specifically capture the corrections and corrective actions associated with deficiencies; these are the definitions that were discussed earlier by Brad. One point specific to SEMS as deficiencies may be crosscutting across elements, corrective actions are not limited to the specific SEMS elements. Rather, a single corrective action may address multiple deficiencies if the underlying systemic issue is the same; conversely, multiple corrective actions may be necessary for a single deficiency if multiple underlying causes are identified.
- 2. Finally, the Corrective Action Plan captures both the actions that have already been taken to address the deficiency as well as the corrective actions not yet completed.

Combined, this is **WHAT** a good Corrective Action Plan is. On the next slide, we'll discuss **HOW** to develop an effective Corrective Action Plan.



The first step in developing a Corrective Action Plan is to identify the deficiencies that indicate corrections are necessary. While this sounds obvious, and often times is, care must be taken to truly understand the full scope of the deficiency to ensure that the corrections and corrective actions can actually address and resolve the real issue.

The next step, often done in conjunction with the first step, is to implement any immediate corrections that address the identified deficiencies, and to determine if these deficiencies exist elsewhere (e.g. other assets, etc.). The corrections should address the immediate risk until the actual cause can be identified and an appropriate corrective action be planned.

The next step is to determine the underlying causes for the identified deficiencies. Understanding both the causes AND the contributing factors is key to developing effective corrective actions and preventing recurrence of the deficiencies. As discussed before, deficiencies may have more than one cause, or the causal factors may necessitate more than one corrective action; it is up to the auditee to implement their internal methods to determine causes and contributing factors,

and how best to address these underlying, potentially systemic, causes and factors.

Once the causes and contributing factors are identified, the actual development of the corrective actions starts.

- 1. The first step in this development is to identify the CAP owner the person or role who has the designated and clear accountability for the development and monitoring of the overall Corrective Action Plan.
- 2. The next step is to develop the corrective actions for each identified cause. Corrective actions follow SMART principles that is, the actions should be Specific in describing what is required, Measurable in the progress towards closing the action, Achievable by the resources available, Relevant and applicable to the identified cause, and Timely in setting specific due dates that are consistent with the risk of the identified deficiency.
- 3. Each corrective action should be assigned a designated person or role that is responsible for the implementation of that action. This person is often different from the person designated overall responsibility for the CAP but does not have to be. Ideally, this person will have the appropriate level of authority and responsibility to fully implement the action(s).
- 4. Finally, the Corrective Action Plan should be approved by a person with sufficient authority and responsibility to ensure the necessary resources are available to implement the entire CAP. This person can be the same or different from the person who has overall accountability for the CAP; the important thing is to have a clear understanding of the roles and responsibilities of everybody involved in the CAP.

Once the Corrective Action Plan has been created, the corrective actions should be implemented. The results and dates of any work being done should be documented; if the work references other work (e.g. a Hazards Analysis, a procedure, etc.), a reference to the supporting documentation should also be included. Additional supporting information around the closure should also be included, both as evidence of the closure and to allow for verification.

Throughout this process, the Corrective Action Plan should be monitored, and the progress of closing the actions should be tracked. As actions are completed, it is a highly recommended good practice for somebody to verify that the actions have been appropriately closed and the appropriate level of documentation has been included and/or referenced. If changes to the agreed upon corrective actions are necessary, including but not limited to changes in the actions, in the schedule, or in the roles and responsibilities, the Auditee's Management of Change process should be used to ensure that the risks are appropriately assessed and mitigated, and to communicate with the relevant stakeholders (including the regulator if

applicable). Progress and changes on the Corrective Action Plan should be reported to the CAP approver on a periodic basis

The final step in the development and implementation of an effective Corrective Action Plan is to evaluate the effectiveness of the corrective actions and validate that the actions have appropriately addressed the underlying causes. This may be done in a variety of ways, depending on the issue identified during the audit, the actions necessary for closures, and the risk represented by the deficiency. Subsequent SEMS audits may also check the effectiveness of the corrections and corrective actions to evaluate the overall effectiveness of the CAP.

SEMS Requirement	Type of Finding	Identified Deficiency	Correction (if any)	Cause(s) or Contributing Factor(s)	Corrective Action(s)	Responsible Person and Job Title	Proposed Closure Date	Actual Closure Date (name and date)	Verification of Closure (name and date)
E3 - Hazards Analysis, API RP 75 Sec. 3	Finding Level 1	There was no evidence provided to indicate that an asset hazard analysis had been completed for asset A (a complex production platform) at the time of the audit.	A hazard analysis facilitator and team were identified, and a hazard analysis has been scheduled for asset A.	Cause 1: Asset A was added to the organization's profile through an acquisition and the prior owners had considered the asset to be similar and nearly identical to other properties they owned.	Review all acquired assets to ensure that current hazard analysis documentation exists and that these assets are included when updating hazard analysis schedules.	Person A Acquisition Team Lead	xx/xx/xxx x	·	
					Conduct the asset hazards analysis. Any identified gaps will be managed according to the Hazard Analysis Procedure.	HA Manager	xx/xx/xxx x		
				Cause 2: The acquisition team had not considered the need for a hazard analysis during due diligence.	Review and update existing acquisition procedures to ensure that checking for hazard analysis for newly acquired facilities is included.	Person B Risk Mgmt. Advisor	xx/xx/xxx x		

To help illustrate the principles just discussed, this slide contains an example of an effective corrective action plan for one specific deficiency. This example, as well as others, can be found in the COS Guidance document.

To start, the deficiency has been fully understood and described. Rather than stating "hazards analyses are not being done", it is specific and fully encompassing of the scope of the issue identified and can be supported by the audit observations and evidence.

One immediate correction was identified, to schedule and execute a facility level Hazards Analysis for Facility A. This may be underway prior to the audit being completed, depending on the scope of the analysis needed, the audit schedule, the availability of the right personnel, and other similar factors. Remember, the correction is meant to immediately address the deficiency, which in this case is the need for the facility hazards analysis.

You'll note that the Auditee identified 2 systemic causes or contributing factors here, one around the existing assets and one around the acquisition process itself.

Multiple causes for one deficiency are not uncommon; the point is to identify the issues that led to the deficiency and that could lead to a recurrence if not addressed and resolved.

3 corrective actions were identified to address the 2 causes – again, multiple corrective actions may be necessary to address a single cause. In this case, 2 corrective actions were identified for the first cause, and 1 corrective action was identified for the second cause. The actions follow SMART principles in that they are specific and easy to understand, progress can easily be measured, address the specific cause, and have scheduled due dates. Each action also has a specific person assigned and documented as being responsible for the action.

This Corrective Action Plan also includes a column to document the actual completion date for each action; additional information, including links to relevant reference material, can also be included at this time. Finally, this corrective action plan also includes a verification column to document when the actions were checked and who did the checking. This extra check can help increase the level of confidence that the corrective actions were appropriately closed and documented. Subsequent internal and external audits and assurances may also check if the actions were appropriately closed but may add more value by checking to see if the underlying issues were accurately identified and the corrective actions effective at addressing those issues.

# Requirements for COS SEMS Certificates COS-2-05 First Edition (2020)

- Establishing, implementing and maintaining a SEMS is a tremendous accomplishment all by itself.
- Having an audit of your SEMS, going through the Corrective Action Process, and completing your corrections and corrective actions is something to be celebrated.
- The COS SEMS Certificate Program was established to recognize those accomplishments.

# **Certificates Available To**

 COS Non-Members, as well as Members





 Operators, Drillers, Service and Supply Companies, Contractors

 Offshore O&G inside and outside the US GOM





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- The big news relative to the COS SEMS Certificate Program is that certificates are now available to everyone COS members and non-members alike.
- SEMS is not limited to Operators, and all companies in the offshore community that implement a SEMS and meet COS requirements are eligible for certificates as well.
- In fact, under the new program, any offshore O&G company in the world can be granted a COS SEMS Certificate if they meet the requirements.
- So what are those requirements?

# **Requirements to Receive a Certificate**

# **Utilize a COS-Accredited ASP to:**



 Complete a SEMS audit meeting requirements of COS-2-03



 Verify completion of corrective action(s) for any Findings Level 1





- To receive a COS certificate, once you have Established, Implemented and are Maintaining your SEMS, you'll be required to have a COS-accredited ASP conduct an audit.
- COS SEMS Certificates can only be obtained if the following requirements are met:
  - First, you must use a COS-Accredited Audit Service Provider.
  - The audit must meet the requirements of COS-2-03 Requirements for Third-Party SEMS Auditing.
  - Then the COS-Accredited ASP must confirm that you have completed Corrective Actions for any Findings Level 1 that were identified during the audit. No Findings Level 1 identified during the audit? Then this step is not required.
- Once the ASP informs COS that these requirements have been met, COS will prepare a Certificate for the ASP to present to the Auditee.



# **SEMS Certificate**

Curt's Certs Wondrous Logo

As a COS-accredited audit service provider, Curt's Certs represents that the organization named below has satisfactorily completed a Safety and Environmental Management System (SEMS) audit meeting the requirements of COS-2-03 (2<sup>nd</sup> Edition) and API Recommended Practice 75 (4<sup>th</sup> Edition). Further, that the organization completed corrective action as described in COS-2-05 (1<sup>st</sup> Edition). The audit was based on a sampling of the following operations and facilities:

## **POP's Platforms**

Plaquemine, LA (Headquarters)
Pop's Platform Numbers A, B and C

Certificate # 112358132134

Curt Certman Head Honcho for Certs

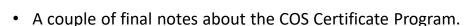
Curt Certman
Curt's Certs

TX USA – 713 456 7890 <u>www.auditman.biz</u> COS Accred # 3.14159265... Issued April 1, 2020 New Certificate Required By April 1, 2023 Seaman Superiore COS Director

Beaman Buperiore

Center for Offshore Safety 15377 Memorial Drive Houston, TX 832 495 4925

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- Publication of the final COS-2-05 Requirements Document is not yet completed but can be expected soon.
- This slide shows a mock-up of what the Certificate will contain, such as logos and signatures from both COS and the ASP.
- You'll notice the language at the top stating that the requirements were met, and because local requirements might oblige specific editions, the editions of relevant documents are identified. In this example, the SEMS was based on the 4<sup>th</sup> Edition of API RP 75 and the 2<sup>nd</sup> Edition of COS-2-03.
- Lastly, the certificate recognizes that conditions change and SEMS will evolve. For that reason, a new audit and certificate will be expected within 3 years.



## Bureau of Safety and Environmental Enforcement

# BSEE's Comments regarding the COS Document Library (April 2020 Revisions and Additions)

Stan Kaczmarek (OORP), Rob Carroll (OSM) April 21, 2020

"To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement."

- We are now going to turn to BSEE for some of their thoughts on the applications of COS-2-03 and these good practices for the US OCS. We are going to hear from both Stan Kaczmarek and Rob Carroll.
- Rob Carroll works in the BSEE Gulf of Mexico Regional Office of Safety
   Management, as a SEMS Specialist. The region is responsible to review, comment
   on and accept SEMS auditing plans, reports and Corrective Action Plans.
- Stan Kaczmarek is the Chief of the Safety and Environmental Management Systems Section in the national Office of Offshore Regulatory Programs, or OORP. The OORP SEMS section is responsible for national BSEE policies and procedures regarding the SEMS regulation, and coordination of regional implementation of BSEE's SEMS regulatory authorities.

# API and COS documents IBR'd into BSEE regulations

- Requirements currently incorporated by reference (IBR) in 30 CFR 250 Subpart S:
  - API RP 75, Section 12 (audit requirements) of the 3<sup>rd</sup> edition
  - COS-2-03, Sections 9.1-9.8 (audit process criteria) of the 1<sup>st</sup> edition
- API RP 75 Sec 12 requirements overview:
  - General
  - Scope
  - · Audit Coverage
  - Audit Plan
  - · Audit Frequency
  - · Audit Report
- The new COS documents do not modify the API RP 75 3<sup>rd</sup> edition requirements referenced above, but they can supplement them
- 4<sup>th</sup> edition RP 75 changes are not relevant to today's discussions

- COS-2-03, Sec 9.1-9.8 overview:
  - Audit Team
  - Audit Scope
  - Audit Duration
  - Audit Planning
  - Audit Execution
  - Audit Reporting
  - · Audit Results
  - Requirements for Nonconformities and Corrective Actions
- The major 2<sup>nd</sup> edition changes from the above IBR'd requirements would be as follows:
  - Audit team no longer required to use COS-1-01
  - Audit Team can now consist of < 3 persons
  - Subsequent SEMS audits will examine closure of all findings and CAP activities, not just non-conformities
  - Maintain audit records for 6 years, not 4
  - New definitions to categorize findings

# New COS documents not currently IBR'd in BSEE regs.

- COS-1-06 Guidance for Developing a SEMS Audit Plan
  - However, it is referenced in the 2<sup>nd</sup> edition of COS-2-03 as a requirement for those who follow COS-2-03
- COS-1-07 Guidance for Developing a SEMS Corrective Action Plan (CAP)
  - This is not referenced in other COS documents
  - BSEE does consider this to be a Best Practice and encourages its use
- COS-1-08 SEMS Audit Report Format and Guidance
  - As with COS-1-06, this is also referenced in the 2<sup>nd</sup> edition of COS-2-03 and will need to be followed by those who adopt the COS-2-03 revision

# Steps forward for regulatory-required audits

#### OCS Operators

- ... are responsible for compliance with Subpart S
- Because the 2<sup>nd</sup> edition of COS-2-03 is not IBR'd into BSEE regulations, if you would like to follow that document instead of the incorporated 1<sup>st</sup> edition, the Audit Plan submitted to BSEE for review should reference 30 CFR 250.115(d) and seek approval for alternate procedures:

"This Plan proposes to comply with the 2<sup>nd</sup> edition of COS-2-03 and the other documents it references, including COS-1-06 and COS-1-08. Compliance with these newer standards will provide a degree of protection, safety, or performance equal to or better than would be achieved by compliance with the incorporated 1st edition of COS-2-03."

### • Audit Service Providers:

- Reminder that in lieu of COS-1-01 and per section 5.7 of COS-2-03 "The audit plan should include a description of how the audit will be conducted, how information will be collected and analyzed, and what terminology and definitions will be used."
- Audit Process descriptions can include internal ASP procedures that have been demonstrated in prior SEMS

audits to be effective, or external references such as COS-1-09 on Auditor Guidance, once published.

#### Use of COS-1-07, CAP processes:

- BSEE considers the Corrective Action process (Planning and Implementation) to be the key to SEMS success
- While the Audit Plan is a joint product of the Operator and the ASP, and the Audit Report is a product of the ASP, the CAP is a product solely of the Operator
- BSEE considers COS-1-07 a best practice that can achieve the regulatory-required objective that the CAP "effectively address the audit findings" (30 CFR 250.1920(d))
- A commitment to follow COS-1-07 can be made by the Operator in the Audit Plan or when the Audit Report and CAP are submitted to BSEE



