

0ORP Project Briefing – May 22, 2015

Project Name: Process Safety Assessment

Technology Assessment Program (TAP) number: 732

Vendor/Contractor: ABS Group Consulting, Inc.

Period of Performance (POP): May 9, 2014 – May 19, 2015

Project Goal/Scope and/or Objectives: Evaluate international and domestic process safety-based regulations and consensus standards, develop a comparison and gap analysis against both BSEE Subpart S and the API RP 75 standard, and recommend areas of improvement to inform potential future rulemaking with the ultimate goal of improving the effectiveness of SEMS and the overall safety culture of oil and gas operations on the OCS.

Project Findings and Recommendations: The assessment revealed opportunities to strengthen the management system approach to preventing major process safety incidents by incorporating additional requirements or guidance within Subpart S or within API RP 75 which is incorporated by reference into the Subpart S regulation. Additional guidance and specificity on topics such as the consideration of human factors, the use of performance indicators, and the quantification of risk can reduce confusion and improve focus throughout the offshore industry. The following set of specific recommendations resulted from the process safety assessment.

1. Establish a framework for reporting leading and lagging indicators.
2. Provide guidance on implementation of barrier management strategies to improve the overall barrier management approach.
3. Adopt a comprehensive human factors standard and require qualitative or quantitative Human Reliability Analysis for each process or operation.
4. Incorporate the ALARP concept and risk tolerability into the SEMS regulations or API RP 75.
5. Incorporate barrier performance measurement guidance into the SEMS regulations or API RP 75.
6. Establish SEMS guidance for MODU owners and contractors.
7. Incorporate the risk management framework, process, and best practices described in ISO 31000:2009 into the current risk management approach.
8. Incorporate guidance on the selection and application of risk assessment techniques.
9. Provide additional guidance on active barrier management, measurement and maintenance.

These recommended improvements can be achieved by BSEE and the Offshore Oil & Gas Industry through a modification directly to the regulation or adoption of existing or updated industry standards within the regulation.