Draft Regulatory Impact Analysis for RIN 1010 AD73, Proposed Rule

Oil and Gas and Sulphur Operations in the Outer Continental Shelf - Revisions to Safety and Environmental Management Systems

Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), Department of the Interior

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Table of Contents

Executive Summary **3**
Need for Regulatory Action and the Reasons that Action is being Considered **3**
How this rule will meet the need for regulatory action 4
Baseline: the world without the regulation 5
Proposed Regulation's Compliance Costs **6**
Recordkeeping and Implementation Costs 7
Legacy Recordkeeping and Implementation Costs 9
Training Costs 9
Benefits of a SEMS Program and this Proposed Regulation **10**
Benefits of the Regulation 11
Measuring the Future Benefits of SEMS 11
Net Benefits **12**
Regulatory Alternatives **12**
Employee Participation (§ 250.1932) 13
Additional requirements for conducting a Job Safety Analysis (JSA) (§ 250.1911) 13
Independent Third Party Audit (§ 250.1920) 14
Stop Work Authority (§250.1930) 15
Ultimate Work Authority (§250.1931) 16
Reporting Unsafe Working Conditions (§250.1933) 17
Analysis Specific to the Regulatory Flexibility Act **17**
Small Entities Estimated to be Impacted by this Rulemaking 18
The Estimated Breakdown of Large and Small Company Compliance Costs 19
Identification, to the extent practicable, of all relevant federal rules that may duplicate, overlap or conflict with the proposed rule. 21
Small Business Alternatives 22

SEMS-II Regulatory Impact Analysis[1]

Executive Summary

This proposed rule is a significant rule, as determined by the Office of Management and Budget (OMB), under Executive Order 12866 due to its novel legal and policy issues. It is not a significant rule due to its annual economic impact.

Safety and Environmental Management Systems (SEMS) is a risk-based performance safety management system. The existing SEMS regulations were effective on November 15, 2010 and OCS operators have until November 15, 2011 to implement a SEMS program under the existing regulations. The proposed provisions in this rulemaking are designed to fill the gaps in the existing SEMS regulations and are consistent with the recommendations of work groups, panels or commissions established following the Deepwater Horizon event.

BOEMRE (Bureau of Ocean Energy Management, Regulation and Enforcement) estimates the average annual cost of complying with this rulemaking is $26.9 million, spread across all OCS oil and gas operators with active operations. The benefits of the SEMS provisions in this rulemaking would come from enhanced safety for offshore workers and greater protection of the marine environment. These benefits would be realized though additional employee participation in safety procedures, training programs, notification obligations as well as strengthened safety and SEMS auditing procedures.

Approximately 40 percent of the costs for this rulemaking will fall on small entities. Small entities are represented in all activity levels of OCS operations (high, moderate and low based on the number of offshore complexes the entity operates). The operating risk for these small entities of incurring safety or environmental accidents is not lower than it is for larger-sized companies. Offshore operations are highly technical and can be hazardous. The risk level along with the adverse consequences in the event of incidents is the same regardless of the operator's size. We have evaluated a number of alternatives to accommodate small entities and facilitate compliance with the intent of this rulemaking, but were unable to identify provisions that would achieve the same safety objectives.

Need for Regulatory Action and the Reasons that Action is being Considered

The importance of this proposed rule is highlighted by the Deepwater Horizon event on April 20, 2010. The blowout of the BP Macondo well, and the resulting explosion on the Deepwater Horizon, resulted in the deaths of 11 workers, an oil spill of national

[1] This Regulatory Impact Analysis (RIA) includes both the economic analysis under Executive order 12866 and the small business analysis under the Regulatory Flexibly Act.

significance, and the loss of the Deepwater Horizon MODU. Although the causes of the event are still under investigation, its grave consequences underline the importance of additional measures to ensure safe operations on the OCS. In consideration of issues raised by the testimony, hearings, and reports being released about the Deepwater Horizon explosion and resulting oil spill, BOEMRE proposes to expand, revise, and add several new requirements necessary for a more thorough SEMS program and for better BOEMRE oversight.

The role of SEMS was specifically mentioned by the Presidential Oil Spill Commission. The commission recommended the existing SEMS regulations be updated. This proposed rule includes those provisions that BOEMRE believes are most necessary at reasonable cost to improve the existing SEMS program for OCS operators. The commission recommendation related to SEMS is found in the following summary:

> *The Safety and Environmental Management Program Recommended Practice 75 (API RP 75) developed in 1993 by the API and incorporated by reference in the Department of the Interior's new workplace safety rules, adopted in October 2010, is a reasonable starting point. Updates to those safety rules are needed immediately, but a new industry safety institution could make a credible start by requiring members to adopt all safety standards promptly—and mandating that the companies, in turn, require that their contractors and service providers comply with the new safety rules.*[2]

The commission also specifically recommended that BOEME provide protection for "whistleblowers" that notify authorities about lapses in safety[3] and expand Safety Environmental Management System requirements to include regular third-party audits at three- to five-year intervals and certification.[4] Both of these provisions are included in this proposed rulemaking.

The importance of exercising stop work authority when an unsafe condition is identified was emphasized by the USCG joint investigation report.[5] While most if not all operators and contractors provide their workers stop work authority, BOEMRE believes stop work authority needs to be formally integrated to the SEMS program.

How this rule will meet the need for regulatory action

A SEMS program is a comprehensive system to reduce human error and organizational failures. The proposed 30 CFR 250 Subpart S revisions will strengthen the existing SEMS framework built around API Recommended Practice 75. Many of the provisions proposed in this rulemaking are already being implemented by safety conscious OCS operating companies. However, as the safety regulator for OCS operations, BOEMRE

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[2] Report of the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, Part III, Lessons Learned: Industry, Government, Energy Policy http://www.oilspillcommission.gov/sites/default/files/documents/FinalReportPartIII.pdf, page 242.

[3] Ibid, page 254.

[4] Ibid, page 253

[5] USCG Report of Investigation into the Circumstances Surrounding the Explosion, Fire, Sinking and Loss of Eleven Crew Members Aboard the Mobile Offshore Drilling Unit Deepwater Horizon, Appendix M, April 22, 2011.

needs to ensure that all companies are implementing the best safety practices and this regulation will help achieve that outcome. In addition to the requirements in current Subpart S regulations, the operator would henceforth be required to include the following in its SEMS program:

(1) Additional requirements for conducting a Job Safety Analysis (JSA);
(2) Procedures to execute a Stop Work Authority (SWA) by any and all employees on the facility when witnessing an activity that creates a threat of danger to an individual, property, and/or the environment;
(3) Clearly defined requirements establishing who has the ultimate authority on the facility for operational safety and decision making at any given time;
(4) A plan of action that shows how an operator's employees are involved in the development and implementation of the American Petroleum Institute's Recommended Practice for Development of a Safety Environmental Management Program for Offshore Operations and Facilities (API RP 75) was incorporated by references in the October 15, 2010, final rule;
(5) Guidelines for reporting unsafe work conditions that provide all employees the right to report a possible safety or environmental violation(s) and request a BOEMRE inspection of the facility if they believe there is a serious threat of danger or their employer is not following BOEMRE regulations;
(6) Revision to an operator's SEMS program to allow only an independent third party to conduct all SEMS audits and meet the specified criteria listed in the proposed rule.

Though these 6 provisions are required, they afford the operator flexibility under their company SEMS to determine the best method and practice to comply with the provisions. For example, the proposed rule allows the operator to designate the individual on the facility with Ultimate Work Authority rather than prescribing to the operator who or the position of that individual.

BOEMRE believes that integrating these additional provisions into existing operators SEMS programs will help facilitate a safety culture and provide greater protections to OCS workers and the environment. A review how each of the provisions will contribute toward improving OCS safety is provided in the *Regulatory Alternatives* section.

Baseline: the world without the regulation

The proposed regulatory provisions are intended to enhance existing provisions or strengthen the existing SEMS program, rather than to create a new SEMS program. Because the existing SEMS program will not be completely implemented until November 15, 2011, and since it takes several years to compile and analyze needed data, BOEMRE is unable to establish a SEMS regulatory baseline to analyze this proposed rule.

A safety management system such as SEMP (Safety and Environmental Management Program) or SEMS has been used by many companies for many years. However, only with the publication of the final rule Safety and Environmental Management Systems is the implementation of SEMS mandatory for OCS operating companies. Per 30 CFR

250.1900(a), full implementation of all thirteen elements of the SEMS program and compliance with the requirements of 30 CFR 250 Subpart S and API RP 75 is required before November 15, 2011.

BOEMRE has determined that the six proposed regulatory provisions in this proposed rule should easily fit into existing or developing SEMS programs and are integral to a well functioning SEMS and the advancement of safety and protection of the environment. For example, many companies already include employees in SEMS program development, hazard analysis and JSA development. Stop work authority (SWA) and reporting unsafe work practices are also components of safety and SEMS programs at many OCS companies. While the ultimate work authority (UWA) and independent third party audits of companies SEMS programs are new to most operators, the proposed requirements should not be difficult to implement for companies with a robust SEMS program.

Proposed Regulation's Compliance Costs

We determined the costs of this proposed regulation by summing the costs from the Paperwork Reduction Act (PRA) burden estimates and from the estimated required training costs added through this rulemaking. BOEMRE estimates that the compliance costs for this regulation are $15.2 million for recordkeeping, administration and related costs and $11.7 million for training costs. This yields a total estimated annual compliance cost for this proposed rule of **$26.9 million**.

Table 1 AD73 Compliance Cost Summary (without legacy costs)

Recordkeeping and Implementation	$15.2 MM
Training	$11.7 MM
TOTAL:	**$26.9 MM**

Because OCS operators have until November 15, 2011 to implement to all thirteen elements of the SEMS program, the compliance cost estimate for this regulation must consider burden hours for legacy implementation costs covered by the PRA. These costs are estimated to be $40.0 million and are summarized in the next part.

Table 2 AD73 Compliance Cost Summary

Recordkeeping and Implementation	$15.2 MM
Training	$11.7 MM
Legacy Recordkeeping and Implementation Costs	$40.0 MM
TOTAL:	**$66.9 MM**

Recordkeeping and Implementation Costs

This proposed rulemaking would add 177,077 burden hours through expansion of some existing regulatory requirements and through new regulatory requirements. The burden table below portrays only the *expanded* and/or new requirements/burden hours that would be added to those already approved by OMB. *Italics* show expansion of existing requirements; bold indicates new requirements.

The paperwork burden table includes all estimated implementation costs for this proposed rulemaking other than employee training. While BOEMRE is proposing to require independent third parties to audit an operator's SEMS program, we do not assign an additional cost to this requirement. Third party audit costs are not new, only shifted from in-house staff already doing that under existing rules. Additionally, BOEMRE is not estimating costs for actual work stoppages if SWA is employed. If SWA is employed during an actual safety situation the work stoppage is not a cost of this rule, but normal operations. SWA may be employed by a worker and the resulting work stoppage could be a "false alarm." BOEMRE has no method to estimate the cost or frequency of a "false alarm" work stoppage and welcomes public comments.

Using a loaded (including benefits and overhead) hourly rate of $86 per hour, we estimate the annual cost to industry for provisions in this proposed rulemaking other than training to be about $15.2 million ($86/hr x 177,077 hrs= $15,228,622). Please see Table 3 for the PRA burden breakout and the rule preamble for a more in-depth discussion about the PRA costs.

Table 3 Burden Table from Proposed Rule PRA Section

Citation 30 CFR 250 Subpart S	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Additional Annual Burden Hours
1900-1933 *Expanded*	High Activity Operator: … As part of your SEMS, you must also develop and implement written *procedures for SWA and include item as standard info pertaining to SWA in all JSAs; plan of action* re *employee participation and implementation; UWA info/designated person; procedures for employees to report unsafe work conditions*…..	2,848	13 operators.	37,024
1900-1933 *Expanded*	Moderate Activity Operator: … As part of your SEMS, you must also develop and implement written *procedures for SWA and include item as standard info pertaining to SWA in all JSAs; plan of action* re *employee participation and implementation; UWA info/designated person; procedures for employees to report unsafe work conditions*…..	2,188	41 operators.	89,708
1900-1933 *Expanded*	Low Activity Operator: … As part of your SEMS, you must also develop and implement written *procedures for SWA and*	100	76 operators.	7,600

Citation 30 CFR 250 Subpart S	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Additional Annual Burden Hours
	include item as standard info pertaining to SWA in all JSAs; plan of action re *employee participation and implementation; UWA info/designated person; procedures for employees to report unsafe work conditions…..*			
1911(b) *Expanded*	*Direct* supervisor *and onsite designated person* approval to conduct a JSA. *Employee participation and signing..*	*1 min*.	130 operators x 365 days x 6=284,700*	4,745
1920(c); 1925(a), (c); *1926(e)*	Submit to BOEMRE after completed audit, report of findings and conclusions, including deficiencies and required supporting information/documentation.	Burden already covered under 1010-0186.		
1926(a), (d) **NEW**	Notify BOEMRE of nomination of independent third party, submit request 30 days prior to audit re approval with relevant information; include management statement and submit new nomination if needed.	3	130 operators once every 3 years = 43	129
1925(a); *1926(f)*	Pay for all costs associated with BOEMRE directed audit approximately 20 percent per operator per category: 3 required audits for high operator ($20,000 per audit x 3 audits = $60,000); 8 required audits for moderate operator ($12,000 per audit x 8 audits = $96,000; and 15 required audits for low operator ($9,000 per audit per 15 audits = $135,000) = 26 required audits per year at a total yearly combined cost of $291,000.	Burden already covered under 1010-0186.		
1928 *Expanded*	….. *(4) SWA documentation must be kept onsite for 30 days; retain records for 2 years. (5) Retain employee participation documentation for 2 years.* (6) All documentation included in this requirement must be made available to BOEMRE upon request.	2 hrs/ mo x 12 mos/yr = 24 hrs	1,007 manned facilities	24,168
		30 mins.	2,447 unmanned facilities	1,224 (rounded)
1930(c) **NEW**	Document decision to resume SWA activities.	8	Once every 2 weeks = 26	208
1932(d), (e) **NEW**	Upon request, provide BOEMRE copy of employee participation program; make program available during an audit.	1	43 audits	43
1933(c), (d), (f) **NEW**	Employee reports unsafe practice(s) and /or health violation(s).	10 mins. 30 mins.	1 oral 1 written	1 hour (rounded)
1933(e) **NEW**	Create and distribute to all employees unsafe activities card with relevant information.	10 mins.	63,000 full/part time employees	10,500
1933(j) **NEW**	Post notice where employees can view re employees rights for reporting unsafe practices.	30 mins.	3,454 facilities	1,727

Citation 30 CFR 250 Subpart S	Reporting and Recordkeeping Requirement	Hour Burden	Average No. of Annual Responses	Additional Annual Burden Hours
TOTAL BURDEN to be added to 30 CFR 250, Subpart S			**354,826 Responses**	**177,077 Hours**

*We calculated operators conducting six JSAs a day (3 JSAs for each 12-hour shift). Some contractors may perform none for a particular day, whereas others may conduct more than six per day. This estimate is an average.

Legacy Recordkeeping and Implementation Costs

Per 30 CFR 250.1900(a), full implementation of all thirteen elements of the SEMS program and compliance with the requirements of 30 CFR 250 Subpart S and API RP 75 is required before November 15, 2011. The 177,077 burden hours shown in the previous section must be added to the existing PRA burden of 465,099 hours because this proposed rule is being published before November 15, 2011. The total burden is: 177,077 + 465,099 = 642,176 hours. The estimated implementation cost for a final rule will not consider these legacy PRA costs. Using the same loaded hourly rate of $86 per hour, we estimate the annual legacy cost to industry for provisions not yet implemented by November 15, is estimated to be about $40.0 million ($86/hr x 465,099 hrs= $39,998,514). The following table includes both the new and legacy PRA costs for this rulemaking.

Table 4 AD73 Complete PRA Implementation Costs

Recordkeeping and Implementation for AD73	$15.2 MM
Legacy Recordkeeping and Implementation Costs (AD15)	$40.0 MM
TOTAL:	**$55.2 MM**

Training Costs

BOEMRE is proposing additional training requirements so that OCS personnel are trained to work safely and to be aware of offshore environmental considerations in accordance with their duties and responsibilities. The training requirements proposed to be added with this rulemaking are:

- How to recognize and identify hazards and the creation and implementation of JSAs (§250.1911)
- Stop work authority (§ 250.1930)
- Ultimate work authority (§ 250.1931)
- Employee participation program (§ 250.1932)
- Reporting unsafe work conditions (§ 250.1933)

BOEMRE estimates that the personnel training related to hazard identification and JSAs will take about 90 minutes per year. The remaining four items (SWA, UWA, employee participation and reporting unsafe work conditions) will together take approximately 30

minutes per person per year. Together, the new training requirements in this proposed rule are estimated to take about 2 hours per year for all OCS employees working over the water. Based upon voluntary SEMS reporting for the last two years, BOEMRE estimates that approximately 63,000 employees work full or part time during the year on the OCS. This yields 126,000 training hours per year. Using the same $86/hourly rate, the cost of training personnel is estimated to be $10,836,000 (2 hours * 63,000 employees * $86/hr).

Companies will also incur cost for instructors conducting the training. We estimate that the average training class size for the 63,000 personnel will be 20 persons. This equates to another 6,300 hours for the instructor's time at a cost of $541,800 (6,300 * $86/hr).

Instruction materials and other miscellaneous training expenses are estimated to be $5.00 per person. This equates to an additional $315,000 ($5.00 * 63,000 employees).

Estimated training costs for this proposed rulemaking are summarized in Table 5.

Table 5 Estimated Training Costs

Training Item	Estimated Cost
Hazard analysis, JSA, SWA, UWA, employee participation and reporting unsafe work conditions.	$10.836 MM
Instruction cost.	$0.542 MM
Miscellaneous training expense	$0.315 MM
TOTAL:	**$11.693 MM**

BOEMRE is assigning the complete estimated training cost to this proposed regulation even though part of the training may already be incorporated into some operator's existing SEMS programs. Many operators already conduct training for hazard analysis, JSAs and SWA even though it is not required by BOEMRE current regulation. Because BOEMRE does not have a basis to determine how many companies already include this training and the share of their personnel receive this training, we are assigning the full estimated training costs to this proposed regulation.

Benefits of a SEMS Program and this Proposed Regulation

The ultimate goal of SEMS is to promote safety and environmental protection during OCS activities. The protection of human life and the environment are the top priorities and objectives of this rule. While it is difficult to quantify the benefits of lives saved and risks avoided due to this proposed regulation, implementation of these proposed requirements will further the goal of avoiding accidents that may result in injuries, fatalities or serious environmental damage. Additional discussion of the benefits of SEMS can be found the final rule for Safety and Environmental Management Systems.

Benefits of the Regulation

A SEMS program that includes these proposed requirements would enhance safety across all aspects of OCS operations. A review of the most recent BOEMRE incident data for calendar year 2010 in Table 6 suggests that SEMS is designed to address many of the incidents and contributing causes observed.

Table 6 provides a historical summary of incidents that were investigated by BOEMRE. The data in the table are updated from the results that appeared in the preamble to the final SEMS rule (RIN 1010–AD15, 75 FR 63610) to include the calendar year 2010 incidents investigated by BOEMRE. Two new categories of "other" and "SWA" were added for the calendar year 2010 analysis.

Table 6 OCS Incidents and Contributing Causes

SEMS Element	Number of Incidents*	CY 2010 Incident Contributing Causes (since SEMS-I rule)
Hazards Analysis	430	18
Management of Change	207	4
Operating Procedures	614	5
Mechanical Integrity	741	15
Other		5
SWA identified		3

*Incident totals include past BOEMRE completed investigations inclusive of calendar year 2010.

The largest SEMS category for 2010 incidents is hazard analysis. This proposed regulation helps address one of the root causes of OCS incidents by requiring hazard analysis training for operator employees. Additionally, three of the incident investigations cited the failure to exercise SWA as a key contributing cause. The result of these three incidents was one fatality and two serious injuries requiring evacuation. BOEMRE has determined based on the analysis of historical incident data that the proposed regulatory provisions should enhance OCS safety practices and culture.

Measuring the Future Benefits of SEMS

There are two primary methods that BOEMRE will use to assess the effectiveness of SEMS and other OCS safety improvements. The first is through SEMS audits and reviews and the second is through analysis of OCS incident data.

SEMS audits can be announced or unannounced, or occur onshore, offshore or both. The audit may only involve employee interviews, or it could focus on record keeping. A full audit could involve 5 people for a week and could be conducted by an independent third party. In some instances, BOEMRE may find it necessary to conduct a SEMS audit. Audit results will be used by BOEMRE to assess the effectiveness of the SEMS program and individual operator performance.

BOEMRE also uses the Offshore Safety Index (OSI) and other incident data to evaluate individual operator performance as well as all OCS operators. While changes in OCS safety metrics may be the result of a multitude of factors including SEMS, it is a key component of BOEMRE's evaluation of OCS safety effectiveness.

Net Benefits

BOEMRE believes that the additional safety requirements would provide net benefits through improved safety and environmental protection; however, for the reasons discussed above, we have not monetized or calculated the net benefits of this proposed rulemaking.

Table 7 Estimated Net Benefits

Item	Estimated Cost
The total estimated **compliance cost** for this proposed rule[6] is:	**$26.9 million**.
The total estimated benefits for this proposed rule is:	**undetermined***
Net Benefit:	**undetermined**

*Please see the section on Benefits of the Regulation for the discussion on benefits for the proposed rule.

Regulatory Alternatives

BOEMRE has determined that the six proposed regulatory provisions are necessary for a comprehensive SEMS program and are consistent with the recommendations of work groups, panels or commissions established following the Deepwater Horizon event. The proposed requirements should easily fit into existing or developing SEMS programs and are designed to fill the gaps in the existing SEMS regulations through the advancement of safety and protection of the environment. For example, many companies already include employees in SEMS program development, hazard analysis and JSA development. Stop work authority (SWA) and reporting unsafe work practices are also components of safety and SEMS programs at many OCS companies. While the ultimate work authority (UWA) and independent third party audits of companies SEMS programs are new to most operators, the proposed requirements should not be difficult to implement for companies with a robust SEMS program.

Operators retain flexibility to implement these proposed requirements in a manner that fits with the operational and cultural approach in their individual companies. For example, the proposed rule allows the operator to designate the individual on the facility with Ultimate Work Authority rather than prescribing to the operator who or the position of that individual. The following sections outline how the proposed requirements contribute to the safety of OCS workers and summarize BOEMRE's evaluation of alternatives for the newly proposed regulatory provisions in 30 CFR Part 250, subpart S.

[6] If legacy implementation costs are included, the estimated implementation cost increases to $66.9 million.

Employee Participation (§ 250.1932)

Employee participation means the partaking in the SEMS program by company staff and management at every level and pay grade within the organization. This proposed rule would require the operator to describe how their employees are involved in the development and implementation of their SEMS program. Management would also have to develop a written plan of action regarding how employee participation in the SEMS program is conducted on both onshore and offshore facilities. The operator would have to provide each employee and contractor employee access to the SEMS program and to all other information required by API RP 75, and the employee participation program. Management must provide BOEMRE a copy of the employee participation program upon request and make it available during an audit. The intent of this program is to foster broad and active participation involving hourly, exempt, and nonexempt employees cooperating to make the workplace safer. BOEMRE believes that a strong involvement of employees in the development and operations of SEMS will provide greater buy-in and confidence in the risk-based SEMS program.

Most companies already involve employees in the development of their SEMS program. This proposed provision would provide regulatory clarity that a company cannot outsource all of their SEMS development to a contractor. Even if SEMS development, implementation and recordkeeping are outsourced to a contractor, the operator's employees must participate in safety activities for the SEMS program to be effective.

Less Stringent Alternative: A less burdensome alternative is to allow companies to develop in-house or outsource SEMS development without employee participation. While most companies would not implement SEMS in this manner, there is a possibility that some companies inclined to only minimally support the spirit of SEMS would seek out this alternative if available. However, this alternative is not feasible since it would not allow the employees who are actively engaged in OCS activities to identify workplace issues that directly impact them.

More Stringent Alternative: A stricter alternative is to require operator documentation demonstrating how each element of their SEMS program as well as hazard analysis and JSAs incorporates their employees' input. BOEMRE does not believe that this very prescriptive approach is necessary or would provide improved employee acceptance and adoption of a safety culture. We believe that the occasional BOEMRE SEMS audits and independent third party audits can accurately reveal whether employees participated in the SEMS development, hence that further documentation is unnecessary.

Additional requirements for conducting a Job Safety Analysis (JSA) (§ 250.1911)

BOEMRE is proposing additional requirements for conducting a JSA. The proposed requirements would improve the effectiveness of the JSA through improved identification of risk and hazards.

The immediate supervisor of the personnel conducting the work would conduct the JSA, sign the JSA, and ensure that all personnel participating in the job sign as well. The person onsite designated by the operator as the person in charge of the facility would be required to approve and sign the JSA and document the results of the JSA in writing. The person onsite designated by the operator would ensure that records of all JSAs are kept onsite for at least 30 days. The JSA must be kept for 2 years as required in § 250.1928.

The operator would conduct training on how to recognize and identify hazards as part of the SEMS program for all personnel. In addition, the operator would provide training to employees within 30 days of employment, and at not less than once every 12 months thereafter.

These additional requirements for conducting JSAs will emphasize the hazard and risk factors identified for the pending operations. The review and sign-off by employees performing the operations will also facilitate communication about the risks for the pending action among its participants and contribute to a safety culture.

Less Stringent Alternative: A more relaxed alternative is to continue with the existing subpart S requirements in § 250.1911. This does not require mandatory training or the JSA signing by all workers participating in the job. While many companies routinely train their employees on hazard analysis, hazard analysis training is not currently a SEMS training requirement in BOEMRE regulations. The same holds for the signing of JSAs by all workers. Many operators do this as a standard practice, but BOEMRE has determined that requiring the signing of the JSA would help ensure that all offshore workers understand the JSA and would follow the requirements.

More Stringent Alternative: A stricter alternative would be for BOEMRE to require the use of a standard JSA template. The JSA template would cover all of the basic areas of concern. This alternative would unnecessarily remove important flexibility from operators to design their JSA in the manner most appropriate for the job and their SEMS program.

Independent Third Party Audit (§ 250.1920)

The proposed regulation requires that audits be conducted by independent third parties rather than providing operators the option of conducting an audit in-house or hiring an independent third party. BOEMRE is requiring an auditor that is fully independent of the entity being audited. This provides greater assurance the audit results are objective.

We are no longer allowing a company to conduct the audit themselves. This is necessary because we want to ensure the objectivity of the auditor and avoid even the perception of bias. While some companies through their culture and systems of internal controls may provide a truly independent assessment of their own company's SEMS program, BOEMRE has not identified any easy and objective metrics to evaluate that independence.

BOEMRE reserves the right to audit an operator's SEMS program at any time. For this to occur, BOEMRE staff must to be available to initiate audits when a potential weakness in an operator's SEMS program is identified. Weakness identification could occur either through an incident or other information received. Additionally, BOEMRE will be reviewing the independent third party audits to provide an additional review and assessment of a company's SEMS program.

Less Stringent Alternative: A more lenient alternative is to continue to allow the company to conduct the audit in-house at their discretion. BOEMRE has determined that this creates a potential conflict of interest within the company and is not a program feature that we believe is conducive to the long-term health and objectivity of SEMS programs.

More Stringent Alternative: A more strict approach is to have the Federal government conduct all audits. The government is already authorized to conduct audits, reviews or visits to determine whether a SEMS program addresses all required elements, and is effective in protecting the safety and health of workers, the environment, and preventing incidents when it deems it necessary. These evaluations or visits may be random or based upon the OCS lease operator's or contractor's performance. At this time BOEMRE believes that having an independent third party conduct the audit and BOEMRE primarily conducting periodic reviews or visits will achieve more complete SEMS oversight than would be possible with only BOEMRE audits.

Stop Work Authority (§250.1930)

The proposed rule adds a new section requiring operators to create and implement a "Stop Work Authority" (SWA) program. Incorporating SWA into a SEMS program will contribute to the culture of safety because all employees will have both the responsibility and authority to halt work when an unsafe conduction is identified.

This provision would ensure that all employees including contractors are given authority to stop the work when employees witness an activity that creates an imminent risk or danger to the health or safety of an individual or to the environment. When a SWA occurs, the proposed rule would provide that person in charge of the conducted activity is responsible for ensuring the work is stopped in an orderly and safe manner. The rule would provide that work may be resumed upon a determination by the person on the facility with ultimate work authority that the imminent danger or risk does not exist or no longer exists. The decision to resume activities would have to be documented as soon as practicable.

A Less Stringent Alternative: A less stringent option is to continue the current situation where SWA, even if it is company policy, may not always be clearly and repeatedly communicated and implemented by all OCS workers. Many accident reports over the years show that injuries, deaths and pollution events could have been avoided if someone at the scene had called for a work stoppage. BOEMRE believes that universal SWA is a necessary component of SEMS.

More Stringent Alternative: In the case of SWA, BOEMRE could propose very stringent standards which include redundant reminders about workers' SWA responsibility to stop work if there is any safety risk or danger. We don't believe this is a reasonable alternative for a more stringent regulatory SWA provisions because it would not meaningfully improve awareness over that achieved during routine training and safety meetings.

Ultimate Work Authority (§250.1931)

BOEMRE is proposing a requirement for operators to specify who has the Ultimate Work Authority (UWA) on MODU's performing activities under BOEMRE's jurisdictions and on fixed or floating facilities. The UWA would be the person on the facility or MODU with the final responsibility for making decisions. Under the proposed rule, the operator's SEMS program must identify the person(s) that has the ultimate work authority and this person(s) must be designated as such by the operator. The SEMS program would have to define clearly who is in charge at all times, and would ensure that all personnel clearly know who is in charge, including when that responsibility shifts to a different person. The person(s) with UWA must be known by name and readily identifiable by every person on the MODU or fixed and floating facility. This could be done, for instances by posting a notice in a public and easily accessible location.

Proposed § 250.1931(d) would require the SEMS to provide that if an emergency occurs that creates an imminent risk or danger to the health or safety of an individual or of the public or to the environment (as specified in proposed § 250.1930(a)), the person(s) with the UWA, is authorized to pursue the most effective action necessary in that person's judgment for mitigating and abating the conditions or practices causing the emergency. This grant of authority is needed to assure that necessary actions will be taken to deal with a serious emergency.

Clarifying UWA on OCS facilities will contribute to the culture of safety by ensuring that all employees know and understand the decision making chain both during routine operations and in the case of a safety emergency. Any confusion or conflict about which person has the authority to make critical decisions during an emergency can cost critical moments and endanger the safety of workers and the facility. The UWA requirement will ensure that all OCS facilities under BOEMRE jurisdiction will have a designated person/position that has the ultimate authority to make safety or other critical operational decisions. The proposed rule allows the operator to designate the individual on the facility with Ultimate Work Authority rather than prescribing to the operator who or the position of that individual.

A Less Stringent Alternative: Again, the less stringent alternative is to continue the current situation where the lines of authority may not always be clearly communicated to all OCS workers. During normal routine operations, this may not be a significant problem, but during emergency operations such as the BP Deepwater Horizon event, confusion about lines of authority can cause inappropriate responses and contribute to delays in decision making. BOEMRE finds this risk is no longer acceptable.

More Stringent Alternative: A more rigorous approach is to require that the operator or "company man" always be onsite and be designated as the ultimate work authority. BOEMRE believes that this prescriptive requirement is overly burdensome and costly, because among other things it would interfere with performance based contracts that operators have with their service providers, perhaps inadvertently compromising safety as well as operating efficiency.

Reporting Unsafe Working Conditions (§250.1933)

The proposed rule has a Reporting Unsafe Working Conditions provision which requires that the operator's SEMS program must include procedures that address reporting unsafe work conditions. Any person may report a possible violation of any regulation or any other hazardous or unsafe working condition on any facility engaged in OCS activities to BOEMRE.

- All operators must post a notice in a conspicuous location in the place of employment where employees frequent that explains employee rights and remedies for reporting unsafe working conditions.
- Each operator must provide training to employees on their unsafe work conditions policy within 30 days of employment, and not less than once every 12 months thereafter.
- Each employee must be provided a card which contains a BOEMRE telephone number that employees can call to get information or report unsafe activities.

This proposed provision will contribute to the safety culture by providing OCS workers an avenue outside their company to report unsafe working conditions if they do not feel comfortable reporting the situation to authorities in their own operational chain.

A Less Stringent Alternative: A more flexible approach is to continue the current situation where the option of reporting unsafe working conditions to BOEMRE exists, but relevant information about filing a report is not required to be routinely communicated to employees working offshore. Many companies have their own ombudsman to act as a trusted intermediary within the company for safety or other grievances. While this practice may work for some operators, BOEMRE believes that the option to report to BOEMRE must also be advertised so that every offshore worker is aware of this opportunity to report unsafe working conditions to the regulator.

More Stringent Alternative: In the case of reporting unsafe working conditions, BOEMRE could propose very stringent standards including redundant reminders and postings about workers' opportunity to report unsafe working conditions to BOEMRE. We don't believe such an added requirement would provide a meaningful improvement in awareness, and therefore conclude that these more stringent requirements are neither reasonable nor currently within BOEMRE's authority.

Analysis Specific to the Regulatory Flexibility Act

BOEMRE is proposing this rulemaking for reasons summarized in the earlier sections covering the need for regulatory action and how this rule will meet that need. The summary of compliance costs and benefits is provided in the E.O. 12866 analysis. This

section only includes a summary of the compliance costs that we estimate would impact small entities. All components of an Initial Regulatory Flexibility Analysis (IRFA) are contained within this RIA.

Small Entities Estimated to be Impacted by this Rulemaking

The changes proposed in the rule would affect lessees and operators of leases and pipeline right-of-way holders in the OCS. This group could include about 130 active Federal oil and gas lessees. Small lessees that operate under this rule fall under the Small Business Administration's North American Industry Classification System (NAICS) codes 211111, Crude Petroleum and Natural Gas Extraction, and 213111, Drilling Oil and Gas Wells. For these NAICS code classifications, a small company is one with fewer than 500 employees. Based on these criteria, we estimate 65 percent of these companies are small entities. This proposed rule, therefore would affect a substantial number of small entities.

This proposed rule would apply to all Outer Continental Shelf (OCS) operators and oil and gas operations under BOEMRE jurisdiction including drilling (MODUs while under BOEMRE jurisdiction), production, construction, well workover, well completion, well servicing and DOI pipeline activities. Based upon BOEMRE data for OCS lease operators, we estimate that approximately 105 out of 130 OCS lease operators currently have active OCS operations. The remaining approximately 25 operators hold operating rights, but do not have ongoing operations. These companies would be required to have a SEMS program if the company initiated OCS operations. More than 80 percent of these approximately 25 operators hold less than 10 leases and almost half of these inactive operators hold a single lease. We have categorized these 25 companies as “low activity” operators for this analysis.

There are many arrangements for sharing project risks and expenses for OCS exploration and development projects. These include original and revised ownership agreements where the risk, equity, and other and other operating interest arrangements may be complex. When there is an assignment of lease rights among different parties, BOEMRE records the OCS lease assignments in a manner similar to county court property records. However for the small entity analysis for this rulemaking, we are only looking at the designated operator or operator of record since that is the entity that BOEMRE will hold responsible for all SEMS related compliance.

High Activity Operators

BOEMRE considers 13 of the 105 active lease operators, high activity operators that produce more than 10 million BOE and operate more than 1,000 components. Nine of these companies are large entities and 4 are small companies. The average number of complexes managed by a high activity operator is 118 and high activity operators manage approximately half of all OCS facilities. We estimate the total number of employees on complexes of high activity operators is 31,500, compared to 63,000 employees on all complexes. Therefore, we can conclude that a majority of OCS production originates from these high activity operators. Because the drivers for SEMS compliance actions and costs are generally the number of complexes and personnel working on these complexes,

we infer that the high activity operators would bear about half of the cost of this rulemaking.

Moderate Activity Operators

BOMRE deems another 41 companies to be moderate activity operators that produce more than 1 million BOE and operate more than 100 components. Of these, 20 are large companies and 21 are small companies. The average number of complexes managed by moderate activity operators is 30. Moderate activity operators operate approximately 40 percent of OCS complexes. We estimate the total number of employees on complexes run by moderate activity operators to be 25,000, compared to 63,000 employees on all complexes. Consistent with the above approach, the moderate activity operators thus would bear about 40 percent of the cost of this rulemaking.

Low Activity Operators

BOEMRE considers the remaining 76 companies low activity operators that did not meet the activity level thresholds for high or moderate activity operators. Of these, 18 are large companies and 58 are small entities. Only 51 of the 76 have conducted active OCS operations within the last 3 years. The remaining 25 hold leases but have not conducted active OCS operations within the last three years. Consistent with OMB guidance, only the PRA portion of compliance costs estimated in this analysis applies to these 25 inactive operators. While inactive operators may incur an information collection burden because they are active leaseholders, they only face the full requirements of this proposed rulemaking if they undertake OCS operations. Accordingly, compliance costs for meeting training requirements are computed based only on the active operator employee count.

Low activity operators have an average of 6 OCS complexes. Low activity operators represent almost half of all active operators, but they only operate 10 percent of OCS complexes. We estimate that the total number of employees on complexes run by low activity operators is 6,500. Therefore, the low activity operators would bear about 10 percent of the cost of this rulemaking.

The Estimated Breakdown of Large and Small Company Compliance Costs

Table 8 details BOEMRE's estimate of this proposed rulemaking's impact across operations on leases held by ***high***, ***moderate*** and ***low*** activity operators for each of the proposed regulatory provisions. The estimated costs other than training are the PRA costs obtained from the burden summarized in Table 3. The cost estimates are further split between ***small*** (less than 500 employees) and ***large*** operators. Factors used to allocate costs include estimated number of facilities, estimated number of employees and number of operators in each activity category.

Table 8 Calculations: This section describes the cost estimation and allocation methodology for a single cell in Table 8. The example explained is for the low activity

small company operators for 30 CFR 250.1933(f) with an estimated cost of $10,099 (posting employees rights for reporting unsafe working conditions on OCS facilities). The $10,099 is the estimated cost allocated to low activity small companies from the total of $148,522. The cost calculation from the burden table for 1933(f) in Table 3 is repeated below.

1933(f) **NEW**	Post notice where employees can view employees' rights for reporting unsafe practices.	30 mins.	3,454 facilities	1,727	$148,522 = (3454 facs * 0.5 hr * $86/hr)

The cost for 1933(f) notice posting is determined by using the estimated number of facilities operated by low activity small company operators. BOEMRE estimates that 235/3,454 complexes are operated by companies in this category. This equates to 6.8% of the total OCS complexes. This yields $10,099 (0.068 * $148,522). Each of the PRA and training costs are allocated to the six operator categories using the categories' estimated share of employees, complexes or total active operators.

Table 8 Estimated Compliance Cost by Company Size and Level of Activity ($)

Company Category► CFR/Requirement▼	High LgCo.	High SmCo.	Mod. LgCo.	Mod. SmCo.	Low LgCo.	Low SmCo.	$Totals
1900-1933 High Activity Operator	2,547,251	636,813					**3,184,064**
1900-1933 Mod. Operator			3,765,503	3,949,385			**7,714,888**
1900-1933 Low Operator					217,867	435,733	**653,600**
1911(b) Suprvsr & Empl. JSA signing.	163,228	40,807	79,669	83,559	13,602	27,205	**408,070**
1926(a) Submit letter 30 days prior to audit	768	341	1,707	1,792	1,536	4,950	**11,094**
1928 Recordkeeping (manned facilities)	831,107	207,777	403,925	423,650	70,663	141,326	**2,078,448**
1928 Recordkeeping (unmanned facilities)	42,092	10,523	20,457	21,456	3,579	7,158	**105,264**
1932(d), (e) Provide Employee Participation	256	114	569	597	512	1,650	**3,698**
1933(f) Post unsafe working condn info.	59,389	14,847	28,864	30,273	5,049	10,099	**148,522**
1933(h)(i)(j) Distr unsafe wrkng condn card	361,234	90,309	176,312	184,922	30,103	60,206	**903,086**
Training (all)	4,677,120	1,169,280	2,282,821	2,394,299	389,760	779,520	**11,692,800**
$Total:	8,682,446	2,170,811	6,759,826	7,089,933	732,671	1,467,846	**26,903,534**

Table 9 provides the estimated split between small and large entities for this proposed rulemaking. This compliance cost summary indicates that small companies would bear approximately 40 percent of the costs of this proposed rulemaking. While this is greater than their share of OCS leases, small entities hold 45 percent of leases in the shallow water depths where most production facilities are located (98 percent of active platforms are in shallow water); see Table 10 and Table 11.

Table 9 Small Company Compliance Cost Summary ($)

Estimated Large Company Cost:	**16,174,944**
Estimated Small Company Cost:	**10,728,590**
[7]$Total:	**26,903,534**

Table 10 Lease Ownership among Small and Large Companies (11/1/2010)

Leases 11/01/2010 (percentage)	**Shallow Water Leases**	**Deepwater Leases**	**All Leases**
Large Co.	55%	92%	80%
Small Co.	45%	8%	20%
	100%	**100%**	**100%**

Table 11 Gulf of Mexico Active Platforms (02/22/2011)

Water Depth in Meters	**Active Platforms**
0 to 200	3,244
201 to 400	20
401 to 800	10
801 to 1000	7
1000 and Above	26

Identification, to the extent practicable, of all relevant federal rules that may duplicate, overlap or conflict with the proposed rule.

BOEMRE has determined that this proposed rule does not create an additional burden to operators because it does not duplicate, overlap or conflict with regulations of other federal agencies. This proposed rule would apply to all OCS oil and gas and sulphur operations and the facilities under BOEMRE jurisdiction including drilling, production, construction, well workover, well completion, well servicing, and DOI pipeline activities. Several other agencies have jurisdiction over other aspects of OCS activities and some of these agencies require the use of safety management systems. It is the intent of this proposed rule that the operators modify their SEMS plans only for oil, gas and sulphur operations under BOEMRE jurisdiction. The requirement for this SEMS plan does not affect the obligation to comply with other regulatory requirements outside of BOEMRE's jurisdiction. If the operator's activities fall within the regulatory purview of another agency (e.g., USCG, DOT), the operator is required to follow that agency's regulations.

[7] Excludes legacy PRA implementation costs.

Small Business Alternatives

This section describes BOEMRE's evaluation of any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes and that minimize any significant economic impact of the proposed rule on small entities. This includes alternatives considered, such as:

(1) establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
(2) clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
(3) use of performance rather than design standards;
(4) any exemption from coverage of the rule, or any part thereof, for such small entities.

Alternative compliance or implementation timelines for small entities

BOEMRE has determined that the proposed provisions in this rulemaking can easily be integrated into OCS operators existing SEMS programs. No new capital equipment is required. Most of this proposed rulemaking's compliance cost is for training and to develop and implement written procedures for the proposed revisions. For small entities with only a few facilities (low activity operators), these new provisions would involve minimal cost. For small entities that are high and moderate activity operators, the cost would be correspondingly greater. BOEMRE has determined that the proposed extra training and documentation requirements are essential for a reliable safety program and delay of implementation is not a viable option.

Consolidation or reporting requirements under the rule for small entities

SEMS records are normally kept by the operator or their SEMS contractor and not routinely provided to BOEMRE unless there is a specific request. BOEMRE may request records during a routine or directed audit of an operators SEMS program. Records kept by the operator are integral to the audit trail for SEMS compliance. The SEMS recordkeeping requirements proposed in this rulemaking clarify some of what would be necessary to ensure compliance with the underlying audit requirement.

Use of performance rather than design standards

The training, notification and other requirements in this rulemaking are intentionally prescriptive. While many operators have or would implement the proposed safety provisions in this rulemaking or similar procedures, we cannot be certain that all operators would implement appropriate measures without regulations. This has been demonstrated over the past decade where not all OCS operating companies have voluntarily implemented a SEMS program. For the provisions in this proposed rule, we have not identified alternatives that would provide the same assurance across all operators as the proposed requirements. BOEMRE requests your comments for any alternative safety measures or programs for OCS operations that would confirm universal achievement of the SEMS goal.

Exemption from parts the rule for such small entities

A standard alternative under the RFA is to exempt small businesses from the requirements of this proposed rule. The "exemption" or "no action" alternative was not adopted by BOEMRE for this rulemaking because it is imperative that BOEMRE adopt the best safety practices and requirements by all OCS operators as highlighted by the BP Deepwater Horizon event. Offshore operations are highly technical and can be hazardous; delay or exemption from the proposed provisions in this rulemaking may increase the risk of OCS oil and gas operations. The risk is not lower for small entities and BOEMRE cannot compromise the safety of offshore personnel and the environment for any entity including small businesses.

BOEMRE can approve departures to existing regulations when the departure would assure the continued safety of OCS operations. In 30 CFR 250.105 departures means:

> *Approvals granted by the appropriate MMS [now BOEMRE] representative for operating requirements/procedures other than those specified in the regulations found in this part. These requirements/procedures may be necessary to control a well; properly develop a lease; conserve natural resources; or protect life, property, or the marine, coastal, or human environment.*

If an operator can identify alternative procedures that afford an equal or greater degree of protection, safety, or performance, and why the departure is necessary, BOEMRE will consider the request.