

New directions in US offshore regulations

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Since 1953, the Outer Continental Shelf has produced 10 B bbl of oil, 100 Tcf of natural gas, and \$100 billion in government revenues. The OCS currently supplies 14% of America's oil and 24% of its natural gas production, and last year, it contributed nearly \$3 billion to the US Treasury.

Today the government and the industry face several challenges. Falling production and profits have prompted industrywide cutbacks. Larger producers are selling older, marginal fields to lower-cost operators. As a result, the number of operators has doubled since 1983. Many lack the offshore experience and financial resources of larger companies. Also, the infrastructure is aging—More than a third of the 3,700 offshore platforms are over 20 years old and past or near the end of their design life.

These facts make my topic—"New Directions in US Offshore Regulations"—important for the industry and important for the US government.

I will touch on 4 topics. The first is the government's regulatory objectives, the principles which underlie our policies. The second is SEMP, the Safety and Environmental Management Program, potentially a big step toward performance goals and away from prescriptive regulations. Third, I'll outline changes in how we regulate the training of US offshore workers. And finally, I'll outline a new approach to regulating deep-water development, a good example of government-industry cooperation.

Eliminate unsafe behavior

We're confident that we share with industry a common goal of safe and pollution-free offshore operations. In pursuit of that goal, we have 4 key objectives. First, we want to eliminate unsafe behavior.

Peter Drucker, the dean of American management scholars, recently noted that despite the ongoing transition from inherently dangerous industrial jobs to comparatively safe office and service jobs, American work-place safety has deteriorated since 1970. He attributes this paradox to government policies that

identified an unsafe work place as the primary cause of accidents. Based on that assumption, the government tried to do the impossible—create a risk-free work place. Instead, Mr Drucker argues, we need to eliminate unsafe behavior.

Technological advances have given the industry very efficient and very reliable tools for finding and producing offshore oil and gas. As a result, equipment alone is rarely the main source of problems. In most cases, accidents and oil spills can be traced to human or organizational failures, which are responsible for up to 80% of all industrial accidents. And that's why our top safety priority is human behavior.

Flexible, performance-based rules

Our second objective is a more flexible regulatory system. MMS safety regulations today focus on the installation, operation, and inspection of equipment. These regulations have been effective and have doubtless contributed to the industry's outstanding safety and environmental record. But they may be too prescriptive. An overly prescriptive

regulatory system inhibits innovation and puts too little emphasis on results. It may be better for MMS to establish performance targets and let the industry find ways to meet them.

Promote continuous improvement

Our third objective is to promote management systems that encourage continuous improvement in the industry's safety and pollution-prevention practices. Operating and engineering practices should be designed for perfection. But the possibility of design flaws and human error should be offset by processes that encourage continuous improvement, processes that bring into play the full range of human ingenuity.

Being a partner—not a policeman

Our fourth objective is to create a relationship with the industry that makes MMS more of a partner than a policeman. We need to create an atmosphere where our mutual and primary concern is to fix the problem, not the blame. If we're successful, the US offshore not only will be safer and pollution-free, but enforcement actions and penalties will become the rare exception.

The industry can and should embrace these objectives. They're good public policy and good business.

SEMP: A new paradigm

To move toward our common goal of cleaner and safer offshore operations, MMS invented SEMP, the Safety and Environmental Management Program. SEMP is the second of my 4 topics. SEMP unifies our 4 regulatory objectives into a single, comprehensive strategy. SEMP was devised as a strategy for preventing accidents and oil spills, rather than merely reacting to them.

It's a concept that applies to all offshore activities.

Simply put, SEMP is a new paradigm for managing offshore operations. It's a model that offers less regulation, not more. SEMP requires a commitment to safety throughout an organiza-

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tion—from roughneck to the chairman of the board. SEMP can reduce substantially the risk of accident and pollution by changing the industry's culture and the way we think about safety.

SEMP is designed to discourage a compliance mentality in which people wrongly and dangerously believe that regulatory compliance equals safety.

SEMP elements

A good SEMP plan will start with top management's firm commitment to safety and pollution prevention. It will include programs for identifying and mitigating hazards. It will assure safe work practices and management-of-change procedures. It will see that em-

employees and contractors are well-trained. It will include procedures for reviewing accidents and near misses, and a system for correcting problems. Lastly, a good SEMP plan will include procurement policies that strengthen safety practices.

What SEMP is not

SEMP is not a paperwork exercise or an opportunity for bureaucrats to gather reading material. Nor is SEMP designed to produce plans that will sit on a shelf gathering dust. SEMP is not a strategy to create more regulation and bureaucracy. To the contrary, SEMP is intended to simplify US regulations.

And most importantly, SEMP is *not* the Safety Case. Much of our motivation for developing SEMP, of course, was the Piper Alpha disaster. We studied the Cullen Report. We met with UK officials. We met with North Sea and US industry representatives. We intensively studied the Safety Case. We reached two conclusions. First, the US Outer Continental Shelf is not the North Sea. Second, the Safety Case, while apparently suitable for the North Sea, is not needed in the US and we have no plans to adopt it in here.

API RP 75

To date, SEMP has been implemented in accordance with API's Recommended Practice 75 (RP 75), which the industry developed in response to the MMS call for a new approach to safety and environmental protection. MMS has vigorously endorsed RP75 because it contains the essential SEMP elements.

The findings of an industrywide SEMP survey conducted by the API and the Gulf of Mexico Offshore Operators Committee was announced recently at the Offshore Technology Conference in Houston. The 88 producers (111 surveyed) that responded to the survey accounted for 94% of OCS production. The survey indicates that US operators are taking SEMP seriously and are either developing or implementing SEMP plans.

This is a great first step. We hope that next year's follow-up survey will show that every operator has a fully operational SEMP plan. For our part, MMS will be promoting SEMP every way we can. We'll continue working with the industry to see that SEMP and RP 75 are implemented quickly, effectively and painlessly.

To date, the SEMP program has dealt

with producers. RP 75, although designed for production operations and facilities, is applicable to all offshore oil and gas activities. RP 75 explicitly recommends that contractors follow practices that are consistent with the operator's SEMP. So operators working to a SEMP plan should expect their contractors to operate under a safe management plan, too.

For these reasons, I want to encourage drilling contractors and the IADC to join with MMS and US producers: Adopt SEMP as a standard practice for drilling operation, and adopt RP 75 as the benchmark for safety- and environmental-management programs.

Re-inventing training regulations

Let me turn now to the third of my 4 topics—worker training regulations. The Outer Continental Shelf Lands Act requires MMS to assure that key offshore workers are trained to safely perform the job to which they're assigned. Current regulations prescribe not only the curriculum, but also the classroom hours and training format.

While these regulations have proven reasonably effective, they're too prescriptive. They limit the flexibility of school administrators and inhibit the introduction of new technologies and innovative training methods. The MMS is seeking new directions for the training program. Our long-range goal is a truly international program where industry and government together establish and implement worker-performance standards and training requirements.

The first step in re-inventing worker training will be to amend our regulations to:

- Reduce the volume of regulatory detail;
- Provide for alternatives to traditional teaching methods and technologies;
- Encourage operators and contractors to integrate training into SEMP plans.

We're also investigating the feasibility of third-party accreditation of training institutions. This would shift the burden of program administration from the MMS to the third party, while allowing MMS to retain regulatory oversight. A third-party accreditation system in US also may facilitate an internationally compatible certification system. The IADC WellCAP program could provide the basis for finally bridging the intercontinental reciprocity gap.

US deep-water potential is high

The last of my 4 topics deals with our emerging regulatory policy on deep-water development. According to some, deep-water development may stimulate a resurgence in the US offshore industry. Potential deep water resource estimates range from as low as 4 B bbl to as much as 20 B bbl.

From a regulatory perspective, deep water begins where the industry starts using non-traditional methods and technologies to develop and produce offshore oil and gas. This tends to be at water depths below 300 m-400 m, with floating production, tension-leg platforms, and subsea wellheads and facilities.

20 years ago, an MMS team began examining a range of deep-water regulatory issues, including the approval and use of floating production systems, certification of TLPs, deep-water pipeline designs, gas flaring, extended well testing and requirements for subsea production and safety systems. The team's baseline determination was that MMS had encountered no major problems in reviewing and approving past deep-water projects. They also found that it had been necessary to regularly grant departures from our regulations in order to approve those projects. Departures were needed most often when equipment or technologies fell outside the scope of our regulations.

The MMS team worked closely with the DeepStar Project. DeepStar, led by **Texaco USA**, involves 17 multinational oil and gas companies, and a variety of suppliers and contractors working to identify and develop technologies that will make US deep-water development viable. A key DeepStar objective was to resolve any regulatory issues that could impede deep-water development.

After a top-to-bottom review, the team recommended revising several technical regulations. But the most significant and far-reaching recommendation was that MMS take a total systems approach to regulating deep-water projects. Future deep-water projects should be regulated as completed systems, not piecemeal. Under this approach, a lessee would prepare a comprehensive development and production plan for each deep-water project.

This plan, one approved by MMS, would establish the minimum engineering, safety and pollution-prevention requirements for that project. This systems approach will initially place

more of a planning burden on the operator and more of review burden on the MMS. But the net effect should be highly beneficial to both.

New directions

In conclusion, MMS has determined that a flexible regulatory program, based upon performance objectives and government-industry cooperation, is far better than a more traditional command and control system, with highly prescriptive and rigid regulations.

Some say, "If it ain't broke, don't fix it." The MMS believes, "There's always room for improvement."

About the author

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