Upcoming regulations affect offshore operations

SEVERAL REGULATIONS AFFECTING offshore operations are expected to come to fruition during the next several years. These include the re-issue by the U.S. Coast Guard of Subchapter N activity regulations; Annexes 4 and 6 to the MARPOL regulations dealing with sewage and treatment devices on rigs and platforms; ballast water management; and engine emissions, respectively, among others.


Alan Spackman

Alan Spackman, IADC's Director-Offshore Technical and Regulatory Affairs, is IADC's principal representative to the International Maritime Organization (IMO), a specialized agency of the United Nations dealing with maritime safety and environmental protection. Mr Spackman discusses several of these pending changes and new regulations that could affect offshore oil and gas operations, from exploration to production.

SUBCHAPTER N REGULATIONS

The greatest potential for change in the way the offshore industry operates in the U.S. is the Coast Guard's revision and re-issue of Subchapter N regulations. However, these revisions have been delayed numerous times and, with the Coast Guard's emphasis now on maritime security matters instead of its traditional roles, it is difficult to say when their attention will return to these regulations.

Even before the events of September 11, 2001, the Coast Guard and its proposed rulemaking were affected by budget cuts that in turn resulted in personnel reductions. Additionally, revising the rules was not high on its priority list because there had been no major accidents offshore.

"Also," Mr Spackman notes, "the Coast Guard knew it was going to become controversial as far as the platform operators and owners becoming upset by more stringent requirements for lifesaving and firefighting equipment."

Subchapter N regulations were issued in 1982 and have not been substantially revised since. About seven or eight years ago the Coast Guard came out with a proposed rule that resulted in significant opposition from the industry.

"The opposition was not so much from drilling contractors as oil and gas producers," Mr Spackman said, "because the proposed rule would have challenged the thinking of the operators of fixed platforms with respect to the adequacy of minimum standards for lifesaving and firefighting equipment on platforms in the Gulf of Mexico."

E&P companies have been against the new proposed rules because, among other things, they could result in higher costs. For example, present regulations require mobile offshore drilling units (MODUs), including floating production units, to have at least 100% crew coverage in regards to lifeboats. Fixed structures, on the other hand, are only required to have 100% coverage of buoyancy apparatus, which could be nothing more than a large life buoy.

However, the present status is that the proposed rule is in limbo. "We know it is there," Mr Spackman explained, "but the Coast Guard has only one person working on it, and he is not doing it very quickly."

Because Subchapter N regulations were issued 20 years ago, they are mostly inadequate in today's technology. "Everybody who looks at them will admit that," Mr Spackman said, "but the challenge is where to set the new and higher minimum threshold."

SEWAGE TREATMENT

Annex 4 to the MARPOL Convention becomes effective this September and deals with sewage and sewage treatment devices. It will require certification of sewage treatment devices by the vessel's flag state.

"In theory," Mr Spackman notes, "they will require some action from fixed and floating platform owners as well to show that they are properly treating sewage."

The sewage is required to be flocculated, broken up and treated with sufficient chlorine to reduce the potential for pathogens to spread.

Traditionally, the flag state would be responsible for sending inspectors to the MODU or platforms to ensure that the sewage is being treated properly for disposal. However, in this case the

Diamond Offshore's semisubmersible Ocean Confidence is operating in the Gulf of Mexico for BP.

coastal state in which the MODU or platform is operating can inspect the vessel. A problem is that many coastal states, unless they are also a flag state, do not have programs in place nor funds for enforcing regulations. Those that do often have standards that aren't based on the IMO requirements.

"However," explains Mr Spackman, "it is a flag state responsibility for the ships irrespective of whether the coastal states perform an inspection. The flag states generally put more pressure on rig owners than do the coastal states."

U.S. flag MODUs should not have a problem regarding inspections and certification.

"It is routine for our members because they have, by and large, Coast Guard certified marine sanitation devices that will meet the IMO requirements," Mr Spackman explained.

The Coast Guard is in the process of developing guidance on implementation of the IMO requirements.

Internationally, inspection of sewage treatment devices will become part of the package of statutory inspections that are typically performed twice in a five-year cycle.

BALLAST WATER MANAGEMENT

A ballast water management code under development by the IMO will require companies to develop and implement ballast water management plans to prevent the spread of non-indigenous new species, such as zebra muscles.

Zebra muscles are small shellfish that were transported in water from a foreign port have gotten into the fresh water systems in North America. They clog water intakes because they grow prolifically without predators, and they have become a major problem for power and water treatment plants in the Great Lakes area.

"There are numerous other nuisance species that have been transmitted from one location to another because of boat management practices," Mr Spackman said.

Part of what the IMO is developing with the code is whether water has to be recirculated through ballast tanks during the voyage from one port to another, eventually replacing all the ballast water with fresh ocean salt water, which is unlikely to be harboring anything that might be a problem.

Treatment alternatives the IMO is considering include use of chemicals; shear stress (cyclone) treatment; and filtering.

There is pending legislation in the U.S. Congress in addition to international legislation. There has been legislation introduced in virtually all Congressional sessions during the past 12 years, according to Mr Spackman, and they have become incrementally more stringent as the awareness of the potential problems become more acute.

"The IMO is still working on how to incorporate advanced treatment methods," Mr Spackman said.

The drillship Noble Leo Segerius is working offshore Brazil for Petrobras.

MODUs would be affected if they move between different geographical areas. The owners would have to manage its ballast water by acceptable means while en route to its destination.

A jackup on dry tow isn't a problem because there is no ballast water, however, for most of the other rigs the exchange of ballast water is time consuming, perhaps requiring that the mobilization slow and wait for some period of time, or a particular routing be used, in order to meet certain criteria.

"For example," Mr Spackman explains, "there are few places between the coast of Brazil and the Gulf of Mexico where a ballast water exchange can occur in the mode that the IMO envisions without going out of the way to accomplish it."

"That's because the IMO has water depth criteria, among others, that there is just no place to make the exchange in this example."

EMISSIONS FROM ENGINES

MARPOL Annex 6, addressing air emissions from new engines, is likely to be implemented within the next 1 ½ to 2 years. This is not a surprise to offshore contractors as the standards have been around for some time. Most rig owners have made sure that they have gotten engines that conform to the standard when building new rigs or replacing engines.

"The regulation deals only with new engines, and they were made retroactive to engines installed after 1997," Mr Spackman said.

"It should be a non-event when it happens for drilling contractors other than they will have to pay for another piece of paper to say that they conform with the requirements."

EPA will be issuing another set of proposed rules on engine standards in addition to IMO and MARPOL on U.S. flag vessels. The EPA has indicated they are also considering applying their standards to foreign vessels entering U.S. waters.

"Standards that are agreed to internationally are not as stringent as EPA believes the standards should be," Mr Spackman explained.

"The EPA has also very clearly been pushing engine manufactures to develop new technology where the IMO standards are based on existing technology."

The next set of EPA rules will be completed no later than April of 2007.

MARITIME SECURITY

The coast guard is charged under the Maritime Transportation Safety Act (MTSA) of 2002 of setting up a system for security planning for facilities and vessels which, if attacked, could cause either serious economic disruption in a local area, significant marine pollution, significant loss of life or transportation system disruption.

The Coast Guard is developing a prioritized list of vessels and facilities that warrant particular attention. Topping that list, obviously, are major bridges, hazardous chemical processing facilities and ships whose cargo, or passengers pose an attractive target.

The Coast Guard has to develop a system of plans at the national and regional level. The language and statute is essentially similar to that which the Congress charged the Coast Guard to plan for pollution response, however, this is response to terrorists.

The Coast Guard has to develop and process the plans and then develop mandatory rules by November. The Congress has provided a waiver of the Administrative Procedures Act so they can go directly into a final rule.

"The Coast Guard is moving very quickly to develop the rules," Mr Spackman said.

"We have tried to do our best to inform the Coast Guard that we do not envision any MODU being a type of facility or vessel that could pass the threshold of seriousness the Transportation Security Act envisions."

"This is because there is not going to be any potential for significant pollution from the rig," Mr Spackman continued. "That is not necessarily the case for the producing wells."

While there is a potential for loss of life, there are other more attractive targets for terrorists. As for transportation disruption, according to Mr Spackman, the rigs coming to port already require special plans from the Coast Guard, so if there were any known terrorist threats they simply would not be allowed to move.