



January 24, 2011

Department of the Interior  
Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE)  
381 Elden Street, MS-4024  
Herndon, Virginia 20170-4817

Attn: Regulations and Standards Branch (RSB)

Re: Increased Safety Measures for Energy Development on the Outer  
Continental Shelf, 1010-AD68, IRFA

Dear Sir or Madam:

Cobalt International Energy, Inc. (Cobalt) appreciates the opportunity to provide written comments pertaining to the Initial Regulatory Flexibility Analysis (IRFA) conducted by the BOEMRE on the Interim Final Rule to Increase Safety for Energy Development on the Outer Continental Shelf (OCS) published on December 23, 2010, in the Federal Register.

Cobalt's operations are focused exclusively on deepwater exploration and development in the Gulf of Mexico (GoM) and offshore West Africa. The BOEMRE's IRFA report indicates that Cobalt "is the only small company (less than 500 employees) among the top 30 companies holding deepwater acreage". We currently own an average working interest of about 49% in 230 deepwater GoM blocks covering approximately 1.3 million gross acres and are the Operator of record for approximately 75% of these leases.

At this juncture in the company's life cycle, Cobalt has a small, highly experienced staff and is primarily focused on exploration drilling. Cobalt's business model anticipates, with exploration success, to be a growing entity in order to accommodate the increased planning and operational activities associated with appraisal and development activities. We believe that our ability to operate will be key to our success as it allows us to control our own destiny and to implement exploration and development plans focused on reducing the cycle times between exploration and production while maintaining our commitment to environmental stewardship and safety.

Although classified as a "small company", one of Cobalt's most important assets is our highly experienced management and technical staff. Cobalt's management has an average of more than 30 years of experience and has worked for some of the Industry's leading super majors, majors and

independents prior to joining Cobalt. The GoM subsurface and drilling staff has an average of more than 25 years of experience and was involved in the drilling of more than 150 deepwater wells in numerous GoM and world wide exploration prospects and fields while working for Cobalt and/or other Operators. Several Cobalt subsea staff have more than 35 years of experience apiece and were asked by BP to assist during subsea intervention operations on the Macondo well. In addition, Cobalt drilling and subsea team members are actively involved in several Industry initiatives as a result of the Macondo incident including the Joint Industry Subsea Well Control and Containment Task Force, the Well Construction Interface Document Task Force and the Helix Well Containment Group.

All of Cobalt's GoM operations have been shut down since May 27, 2010, as a result of the deepwater drilling moratorium established by NTL 2010-N04 (Moratorium) and the continued delay in issuance of drilling permits after the Moratorium was lifted in October 2010. This lack of activity has had a profound impact on our company and our ability to keep our contactors and vendors employed.

Cobalt's desire, like other companies involved in GoM deepwater operations, is to get back to work safely and as quickly as possible. A significant portion of our staff has worked diligently over the last 8 months to understand the failures that caused the Macondo blowout, to become familiar with and ensure compliance to the new regulations, to navigate the evolving permitting processes, and to develop viable options to improve response time and containment capabilities in the event of a blowout. We are committed to putting our staff and our contractors back to work and safely delivering the oil and gas resources required to support the nation's economy and enhance national security.

Because of our extensive leasehold in the GoM and classification as a "small company", Cobalt has a unique interest in the interim final rule's IRFA conducted by the BOEMRE. We fully support safe and environmentally sound drilling practices and believe that safety regulations should apply equally to all companies, no matter their size. We further believe that the regulations developed as part of the interim final rule and the final rule on Safety and Environmental Management Systems (SEMS) provide sufficient assurance to support the immediate return to work by the Industry. The increased focus on safety and the ability to identify and respond to unplanned events will reduce the risk of a future blowout from offshore drilling.

Cobalt offers the following comments to the IRFA specifically and the interim final rule in general:

- Cobalt thinks that the BOEMRE has severely underestimated the cost of compliance to the interim final rule;
- Cobalt asserts that some of the proposed changes to 30 CFR 250 and compliance with various NTLs and the BOEMRE's Guidance document actually create unsafe conditions; and
- There are several alternatives that should be considered by the BOEMRE.

Further details that support this assessment are provided below.

Cost of Compliance

The IRFA report estimates that compliance with the interim final rule should cost approximately \$1.42 MM per well for wells drilled with Mobile Offshore Drilling Unit rigs (MODUs). Cobalt estimates that the cost of compliance is significantly higher than this value.

As identified in Table 1 provided below, Cobalt currently estimates that the cost of a typical industry exploration well drilled to the Miocene with a MODU could increase by as much as \$28 MM in order to comply with this interim final rule. The largest potential cost increases, as shown in Table 1, are associated with modifications to the casing design and additional BOP inspections.

Item	Cost (\$)	Comments
BOP Certification	120,000	One time charge(?)
BOP, Casing, Cementing and Shear Certification	40,000	
Negative Pressure Testing All Intermediate Casing Strings	332,000	
Additional BOP Inspections	10,450,000	Based on increasing a 120 day well by 19 days
Modified Casing Design	17,300,000	Includes cost for additional logging runs, BOP tests, casing run and BHA run
<b>TOTAL COST</b>	<b>28,122,000</b>	

Table 1: Cost of Compliance

The above cost projections reflect the impact of needing to modify a typical casing design in order to top set prospective hydrocarbon bearing zones to provide increased assurance that in the unlikely event of an uncontrolled flow, the well can be killed from a relief well. The estimated cost increase of \$17.3 MM is attributed to a modification to the well plan and associated casing design that results in the addition of a liner and associated work which is projected to add 15 rig days to the well.

Prior to the Macondo incident, all the rams on the BOP were function tested once a week except for the blind-shear rams. Function testing the blind-shear rams, which requires tripping the drill pipe out of the well to ensure that the BOP stack is clear, was usually conducted when casing was run or in conjunction with a drilling program activity that necessitated a trip out of the hole with the drill string. Cobalt proposes to function test the blind-shear rams once every two weeks in lieu of the recommended test every 7 days. The \$10.45 MM identified for additional BOP inspections reflects the incremental cost on a deep well of having to function test the blind-shear rams once a week as required by 30 CFR 250.449(h) if our recommended change to function test the blind-shear rams every two weeks is not accepted. From a cost perspective, the increase in

testing frequency decreases the number of days actually spent drilling by two days every two weeks. Therefore, a well which would have taken 120 days to drill prior to the Macondo incident will take about 19 days longer to drill because of the increased testing frequency of the blind-shear rams. The resulting cost increase assumes a rig rate of \$550,000 per day which is fairly typical for a deepwater GoM MODU. Cobalt believes that there is added risk associated with this increased testing frequency which will be addressed later in this document.

It should be noted that the incremental costs identified in Table 1 will vary for different types of wells based on water depth, well depth and/or objective horizons, i.e. Miocene vs. Lower Tertiary. While we are optimistic that we will be able to improve efficiencies and reduce some of the identified costs in future wells of similar design, the numbers presented are representative for costs today as a result of the new rules and regulations.

### Unsafe Conditions

Several examples of unsafe conditions resulting from the Interim Final Rule to Increase Safety for Energy Development on the Outer Continental Shelf, "Guidance for Deepwater Drillers to Comply with Strengthened Safety and Environmental Standards" (Guidance document) and various NTLs are highlighted in this section.

Cobalt strongly recommends that the BOEMRE revise the wording in 30 CFR 250.198(a)(3) to remove the new language which effectively changes the discretionary provisions in 100 standards and recommended practices to mandatory requirements. This includes more than 14,000 discretionary provisions in 80 API standards and recommended practices. Cobalt agrees with agencies such as API and NOIA as well as other offshore Operators who have indicated that blanket revisions of the word "should" to be read as "must" could actually increase safety risks in some cases.

As indicated in the previous section, 30 CFR 250.449(h) requires a function test of annular and ram BOPs every 7 days. While Cobalt agrees that this function test is important, we recommend that the testing of the blind-shear rams be conducted at 14 day intervals in order to reduce the potential for stack body wear which would introduce further exposure to leakage within the BOP. In addition, studies have consistently shown that the majority of well-control events occur while tripping. We anticipate that increasing the frequency of tripping and staying off bottom to test the blind-shears rams once per week will actually increase the risk of an unplanned well control event. An influx while the pipe is not near bottom is far more hazardous than taking a kick while drilling.

The BOEMRE "Guidance for Deepwater Drillers to Comply with Strengthened Safety and Environmental Standards" released on December 13, 2010, outlines the requirements for negative pressure testing and requires that liner tops be tested to the highest differential pressure that is expected for the life of the well. For some wells, this may require testing at extremely underbalanced conditions which could actually induce an unsafe well control event. Up to now, negative pressure tests were designed to be qualitative tests, i.e. to ensure a barrier was

effectively set; these tests were never meant to be in-situ quantitative tests, i.e. how much pressure differential can the barrier withstand. For some situations, Cobalt recommends a positive pressure test be conducted in lieu of the negative pressure test.

#### Recommended Alternative Options

30 CFR 250.198 (a)(3): We think that requiring an Operator to address all departures which result when changing “shoulds” to “musts” in the 100 standards and recommended practices list in 30 CFR 250.198(a)(3) is not practical. If an Application for Permit to Drill (APD) must include a discussion of all the “shoulds” in the referenced documents which require a waiver, the APD will be prohibitively long and time consuming and will lead to endless discussion with the BOEMRE. The obligation on the Operator’s part to provide a discussion for any deviation on every option considered and an explanation regarding the alternative chosen, which in turn will be reviewed on a case by case basis and granted by the BOEMRE where situations warrant, will not only be time consuming but problematic in the long run when exceptions become the rule for individual Operators without a mechanism to leverage the learning to evolve into utilization of “best practices” by the Industry. The API and other organizations have provided considerable feedback on this topic and we suggest that the BOEMRE repeal this approach and focus solely on content that clearly improves well integrity and safety.

30 CFR 250.213 (g) and 30 CFR 250.219(a)(2)(iv): The existing approach preferred by the BOEMRE to calculate worse case discharge volumes for any potential hydrocarbon zone to be encountered by a well has been found to be very laborious and time consuming. Though estimated by the BOEMRE to only add approximately 15 average burden hours per respondent to the permitting process, our experience has been that this activity requires closer to 170 man hours to complete. We think that the current methodology is not sustainable and can be streamlined without jeopardizing the objectives of NTL No. 2010-N06. One recommendation that we offer is to drop the requirement that hydraulics calculations be conducted for each hole section with hydrocarbon bearing potential. Instead, the result of multiplying the permeability by thickness and dividing by the oil viscosity ( $k \cdot h / \mu$ ) is an excellent indicator of which horizon will have the highest flow rate.

30 CFR 250.415(e): We suggest that a better requirement would be to demonstrate shearing capacity for drill pipe, which includes work-strings and tubing, which is run across the BOP stack. It is also recommended that the requirement for shearing capacity, with maximum allowable surface pressure, be modified to shearing with mud hydrostatic pressure, plus a conservative shut-in pressure limit, determined/set by the Operator and Contractor where shut-in well pressure is transferred from the annular BOP to a ram BOP. This is an established best practice. With this approach, increased pressure across the blind-shear rams is eliminated.

30 CFR 250.430: We recommend that you consider changing this regulation. We do not think that compliance with this regulation is possible for deepwater

Operators. For large hole sections immediately below the conductor, rigging up a riser/diverter system would cause drilling fluid losses, along with a possible riser collapse and loss of the well. Attempting compliance with this regulation would also increase exposure of the rig and crew to safety hazards. We think it would be far better for the agency to modify its regulatory requirement, rather than utilizing a waiver process.

30 CFR 250.449(k): We do not recommend testing the deadman system when the stack is attached to a subsea wellhead. If the rig experiences a drive-off or drift-off during the test, the only alternative system available to disconnect from the wellhead is the ROV intervention system. Failure to disconnect in time could result in serious damage to the rig equipment, the wellhead, or the well casing. As an alternative, we think it would be more appropriate to test the autoshear system subsea. Such a requirement will test the same hydraulic system as the deadman, however the autoshear function does not disable the control system and create the same well and equipment hazards as testing the deadman system.

30 CFR 250.451(i): We believe the 30 CFR 250.451(i) is best read to only require a subsea BOP stack to surface when pipe is sheared, rather than actuated on an empty cavity. We request that the agency clarify that the requirement to pull a subsea BOP stack to surface after actuating the blind-shear rams does not apply when the blind-shear rams are actuated on an empty cavity, but applies when pipe is sheared.

#### Additional Comments

One of the strengths of operating in the United States has always been that requirements were clearly established and Operators understood what was required. We request increased consistency and clarity from the BOEMRE with respect to permitting methodology and anticipated timing in order to alert our suppliers and effectively plan for the future. The uncertainty in permitting impacts all Operators, but is more severe for small independents because of the lack of flexibility to move resources to other parts of the world or to conduct activities which are easier to approve, e.g. drilling water injection wells. In addition, as a small independent, uncertainty in permitting requirements and timing also increase the risk in operations because of the inability to leverage learnings associated with continuous drilling programs or being able to execute a multiple rig drilling program utilizing one rig, service providers, crews and drilling procedures.

Although Cobalt agrees that the same safety standard should be applied to all companies, Cobalt believes that financial liability to address response and clean-up following a spill should not be set so high as to prevent independents such as Cobalt from operating in the GoM. Cobalt asserts that all of the new safety regulations being created by the BOEMRE will increase safety and reduce the risk of a future blowout. In addition, according to 30 CFR 250.101(b)(4), one of the responsibilities of the BOEMRE Director is to "preserve and maintain free enterprise competition". Excluding independents who can safely operate in the deepwater GoM violates this principle.

Again, we appreciate the opportunity to provide comments on the IRFA conducted for the interim final rule. Cobalt strongly urges the BOEMRE to consider the comments submitted herein, by other agencies such as API and NOIA and by other Operators; and publish a final rule which addresses these comments and concerns. In addition, we are encouraged to learn that the BOEMRE plans to revert to standard rulemaking practice as we believe that this approach ensures that the public is informed of Federal agency activity and has an opportunity to provide information to the Federal decision maker before agency decisions are finalized. Cobalt looks forward to working with the BOEMRE to continue to maintain safe operations while advancing the nation's energy security.

Sincerely,

*Lynne L. Hackedorn*  
*signed by Connie L. O'Garra*

Lynne L. Hackedorn  
Vice President, Government/Public Affairs and Land  
Cobalt International Energy, Inc