

**“A New Era for Safety in the Oil and Gas Industry”**

by

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It is important, in speaking to this audience, that I be very clear in making distinctions between my comments as Co-Chair of the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, and my personal observations as someone who has long been involved in energy development, both as a board member of a global energy player and as a director of a major investment company with a substantial electric energy position. I also have co-chaired for nearly 10 years the National Commission on Energy Policy, which has thoroughly studied and made recommendations on energy supply and demand and policies to influence them. I am speaking for myself today since our Commission has not yet completed its report.

So, let me start by making some personal observations.

First, it is clear that, for as long as this country maintains its thirst for oil, deepwater exploration and drilling will continue. You know why – because that’s where the oil is.

Nevertheless, many Americans have come to ask whether the risks of deepwater exploration and development are worth it.

Which leads me to my second observation: The interest group that could most threaten the future viability of offshore drilling is the oil and gas industry itself.

Let me explain.

I want to take a page from our investigatory team’s presentation to the Commission last month. Before outlining their findings on the causes of the BP Deepwater Horizon explosion, they asked for a moment of silence out of respect for the 11 whose lives were lost in the explosion.

I suppose we could also have taken a moment of silence out of respect for all those in the Gulf whose lives were ground to a standstill, who spent the better part of three months worrying whether they were facing financial ruin, and who are struggling to this day.

And then, I suppose, we could have asked for a moment of silence for the Gulf itself, which is one of the world's great fisheries, a magnet for tourism and recreation, home to abundant wildlife, marvelous wetlands, and which has come perilously close to becoming one of the world's largest oxygen-deprived dead zones. The oil spill was but the latest assault on this amazingly productive natural resource.

A recent Commission staff paper noted there was a point in the management of this crisis when industry experts feared the entire 120 million barrel reservoir might seep through the ocean floor and wreak total havoc.

I would ask that you take a moment and reflect on this:

- What we would be talking about today if the well couldn't be capped?
- If it was still pumping 60,000 barrels a day into the Gulf?
- If the shores of Gulf resorts in Mississippi, Alabama and Florida had been smothered with oil?
- And if the videos were still being shown, 24/7, on every cable network and news website around the world?

I can assure you we wouldn't be here debating how long it will take to jump start the permitting process in the Gulf or the Arctic. . . we'd be having an existential conversation about whether offshore drilling should ever be permitted in US coastal waters again.

The fact is, despite all the trauma and expense, the consequences could have been far worse.

But your clients won't have that luxury the next time. And, as their counsel and advisors, you need them to get focused.

In 1989 I was serving President George H. W. Bush as Administrator of the US EPA. One day in March, Good Friday, I was having lunch in my office when my chief of staff, Gordon Binder, came in to inform me that a tanker containing 55 million gallons of oil, the *Exxon Valdez*, had slammed into a reef, spilling its contents into Alaska's Prince William Sound.

We quickly learned that the containment and clean up technology was remarkably primitive, that the industry's capability to respond rapidly to this kind of problem was minimal. Hours after arriving in Alaska a few days after the accident, I joined the Governor and Coast Guard Commandant in an overflight of the area. We had been assured that a dozen skimmers were at work. We located two, both dead in the water. I had been told that booms were in place protecting four salmon hatcheries and the stricken tanker. All the booms were breached, including even the one surrounding the tanker. None of the equipment, skimmers or boom, were effective in the open ocean. They still aren't. To this day you still see evidence of the spill in the sands surrounding Prince William Sound and some birds and fish species have yet to recover.

When I first learned of the Deepwater Horizon spill, my assumption was that the oil and gas industry, over the previous two decades, had upgraded its safety and response capabilities from what I had witnessed first hand in Prince William Sound. I assumed that the oil and gas industry had made strides in containment, dispersant and clean-up technologies, and that this would help limit the impact of the spill.

To my shock, it quickly became clear that while the industry had devoted billions to the technologies required for deepwater drilling, it had devoted essentially nothing to creating a Plan B, to dealing with the utterly foreseeable consequences of a disaster.

In the midst of the crisis, a reporter from the *New York Times* observed that clean-up technology *“has progressed so little that the biggest advancement in the Gulf of Mexico disaster — at least in the public’s mind — is an oil-water separator based on a 17-year-old patent and promoted by the movie star Kevin Costner.”*

Last May President Obama formed the National Commission on the BP Oil Spill and Offshore Drilling to investigate the causes of the Deepwater Horizon fiasco, to evaluate the containment and clean up responses, and to advise him about how future energy exploration should take place in environmentally sensitive and dangerous offshore areas .

At the time I was serving on the board of ConocoPhillips, from which I have since taken a leave of absence. When the President asked me to co-chair the Commission with former Florida Senator and Governor Bob Graham, I reminded the White House of my membership on an oil company board and assumed that would disqualify me. The President’s energy advisor, Carol Browner, said “after the vetting that has occurred here, we know more about you than your family. The President considers your industry associations an advantage”.

Since mid- July, the seven person Commission, supported by Executive Director Richard Lazarus of Georgetown University’s law school and a truly first-class staff of researchers, investigators, and policy analysts have been working non-stop to fulfill the President’s mandate of presenting our findings by January 11, 2011.

We’ve held several hearings in New Orleans and in DC; commissioned expert studies on subjects ranging from the safety of dispersants to the technological issues involved in offshore drilling; consulted with residents and leaders of all the impacted Gulf states; and conducted a scrupulous and thorough investigation of the circumstances that led up to the disaster. You’ll be hearing more about that when our work is completed in January.

Our investigation uncovered a cascade of bad decisions: failed cement tests, premature removal of muds underbalancing the well, a negative pressure test that failed but was judged a success, apparent inattention, distraction or misreading of a key indicator that

hydrocarbons were rising toward the rig, and, ultimately, a blow-out preventer that failed to shut down the well.

Much has been said about the number of different commissions, investigations and lawsuits that have been looking into the causes of the BP disaster. And, because it is being scrutinized by the thousand different eyes of the media, as one would expect there are differences in understanding what caused the problem; the degree to which each of the three major corporations, BP, Halliburton and Transocean, bear the brunt of the blame; and so forth.

But those differences of findings are mere nuances.

Make no mistake: There is virtual consensus among all the sophisticated observers of this debacle that three of the leading players in the industry made a series of missteps, miscalculations and miscommunications that were breathtakingly inept and largely preventable.

What shocked me the most was the understanding that, while the industry has progressed to a remarkable level of sophistication when it comes to exploration - the deepwater rigs are to be celebrated for their incredible innovation and are a testament to the technological capabilities of the oil and gas industry - yet the very same players have been remarkably passive in terms of developing a response capability equal to the task and seemingly indifferent about developing an industry-wide safety culture needed to prevent such fiascos.

So, speaking personally and as a fellow member of the energy industry, let me make a very blunt prediction: If this should happen again, if there should be a high-profile drilling mishap in an environmentally sensitive area somewhere in the US, the public and governmental response will be disproportionately severe.

This will be true even if it is a relatively minor event with much less serious damages.

Because the American people are not going to forget the Deepwater Horizon.

They are not going to forget that image of oil spewing from that pipe on the ocean floor day after day after day. They are going to remember that image the same way they remember the images of Katrina and the images of the Berlin Wall going down.

The companies you advise and represent need to understand that this is an industry problem that requires a rethinking of fundamental industry responses. If the industry leaves this exclusively up to government and the regulators, the industry will ultimately regret it. The embarrassing reality is that the understanding and expertise of government regulators has lagged far behind the technological advances that have made deepwater drilling possible and it will take time for them to catch up, even assuming Congress appropriates the required funds for training, new hires and better

compensation. In the meantime it is regrettable but not really surprising that regulatory officials are reluctant to sign their names to new permits.

Last week, the Commission held its deliberations on the recommendations it will be making to the President. With respect to the regulatory and safety issues, I can summarize our present thinking.

While my focus today is primarily on the responsibilities of the oil and gas industry, the Commission is subjecting the government to similar scrutiny.

The scope of the Commission's findings makes it clear that the industry is not solely to blame. Government oversight failed us miserably.

You heard Michael Bromwich speak earlier today. He is an impressive and fully capable public official, and the country is fortunate to have him lead the transformation of what was previously known as the Minerals Management Service. And Secretary Salazar and Deputy Secretary Hayes have given their highest priority to reforming the old MMS, now named BOEMRE (The Bureau of Ocean Energy Management, Regulation, and Enforcement).

Yet in terms of expertise, training, new personnel and funding, little has changed thus far.

The regulatory culture needs to be transformed:

- Leasing activities need to be separated from the regulatory responsibilities. MMS needs to be separated into three entities with unique cultures and clearly defined statutory authorities:
  - A new Offshore Safety and Environment Authority (OSEA), which should be the federal agency with primary statutory responsibility for overseeing the structural and operational integrity of all offshore related energy—oil, gas, and renewable—facilities and activities.
  - An office of Leasing and Environmental Science (LES), that would act as leasing and resource manager for conventional and renewable energy and other mineral resources on the OCS and
  - A new Office of Natural Resources Revenue (ONRR) that would supervise and audit revenue collections.

Both the UK and Norway followed up disasters in the offshore environment by separating the leasing and financial functions from the environmental and safety regulating functions, and so should we.

- I consider that the professional quality of the regulatory staff and inspectors needs to be substantially improved and that the level of science and risk analysis must be significantly upgraded. To that end we are considering that a dedicated

fund from a surcharge to the Oil Spill Fee should be made available to support these activities.

- There is a strong case to be made that the government should reorient its regulatory approach to integrate risk assessment and risk management practices into its oversight of the offshore industry. To that end the Commission is considering calling for a transition from the highly prescriptive regulatory model that is the paradigm in the US to a risk based performance approach specific to individual facilities, operations and environments, similar to the “Safety Case” approach of the UK in the North Sea.

I believe that government and industry can evolve towards a relationship where high-risk energy enterprises can be conducted safely; where companies and investors can have a high level of predictability; and where decisions can be made quickly and appropriately.

But the precondition is that there has to be a recognition that the industry has not made safety a high enough priority. We need a major transformation in the oil and gas industry’s understanding of what it means to put a priority on creating a safety culture. This is an industry-wide challenge that can’t simply be laid at the feet of a few rogue players.

While it is true that some companies, such as Exxon, Shell, Chevron and perhaps others we have heard less about, have made safety an integral part of their corporate culture and operational strategy, it is also true that these actions have not insulated them financially from the consequences of the failures of BP, Halliburton and Transocean.

My Co-chairman Sen. Bob Graham and I have made clear our personal conviction that a multi-month moratorium on all deepwater drilling in the Gulf, particularly after each rig had been inspected and any deficiencies promptly corrected, was excessive. But one cannot debate that the actions of three players led to economic loss for the entire industry, not just in terms of delayed operations but in structural and reputational costs as well. The Insurance Information Institute testified before Congress that, in reaction to the Deepwater Horizon spill, major insurance and reinsurance firms have increased premiums charged to firms engaged in exploration and production activities by as much as 50 percent.

Why in the name of maintaining a productive, profitable business would the oil and gas industry ever allow that to happen again?

And if the industry, as a group, doesn’t act, the odds are growing that there will be another catastrophic failure down the road.

Let me quote from a letter the Commission received recently from The Center for Catastrophic Risk Management at Berkeley:

*“The oil and gas industry is embarking on an important “next generation” series of exploration and production operations in the ultra-deep waters of the Gulf of Mexico, the remote waters of the Arctic, and other new frontier areas. Oil and gas development will continue to pose risks, with concurrent likelihoods and consequences of catastrophic failures, that are several orders of magnitude greater than previously confronted by regulators, the industry, and society.”*

*“The significant increases in risks are due to: (1) complexities of hardware, software, emergent technologies, and human systems used in these operations, (2) natural hazards posed by the ultra-deepwater marine environment, including geologic, oceanographic, and meteorological conditions, (3) hazards posed by the physical properties of hydrocarbon reservoirs, such as high productivities, pressures, temperatures, gas-to-oil ratios, and low strength formations, and (4) the sensitivity of the marine environment to introductions of large quantities of hydrocarbons.”*

I don't think anyone in the industry can argue with that. The question is: What to do?

What is needed is a shared industry culture that puts a premium on safety and risk management. There's no question that some of the leading companies in the oil and gas industry grasp the importance of making safety an integral part of their culture, and view it as a competitive advantage.

The Commission heard that in the testimony of Exxon Mobil CEO Rex Tillerson:

*“A company's priorities can — and do — evolve over time depending on business conditions and other factors. A commitment to safety therefore should not be a priority, but a value — a value that shapes decision-making all the time, at every level.*

*The answer is not found only in written rules, standards and procedures. While these are important and necessary, they alone are not enough.*

*The answer is ultimately found in a company's culture — the unwritten standards and norms that shape mindsets, attitudes and behaviors. Companies must develop a culture in which the value of safety is embedded in every level of the workforce, reinforced at every turn and upheld above all other considerations.”*

As Tillerson pointed out, achieving this level of commitment takes time and constant refinement. Most of all it has to be internally driven, not imposed by government.

There is also no question, as indicated by comments from various industry leaders during the course of the Macondo crisis, that certain companies were well known within the industry to be laggards when it came to a safety culture. Yet the industry stood by and let disaster happen. Commission staff and I personally listened to several hours of detailed presentations on safety systems that are in place and effective in some of the most admired oil companies. At the conclusion of these presentations I complimented them on their sophisticated management of risks. But I reminded them, “Despite all

this, your rigs are shut down in the Gulf. What have you done, what will you do, to guard against the risk that other companies may not have risk management systems in place that are as good as yours?”

The challenge is how to institutionalize, in a highly competitive industry, a “virtuous circle” where all the companies involved are competing in terms of continuously raising the bar where safety and risk management are concerned.

To that end I would ask the industry to create an autonomous, industry managed “Safety Institute”.

Other inherently risky industries, such as the nuclear navy, nuclear power operators, and chemical manufacturers, have improved their overall safety culture and safety performance by creating self-policing organizations that exercise some combination of standard setting, audits, best practice exchanges, training, accountability and enforcement. There was a time in the 1950s when 55 percent of Americans told pollsters they would not fly, so bad had been the number of airplane accidents. And there was a time when the US Navy lost a submarine on average once every four years, in peacetime!

In the wake of Three Mile Island, the nuclear power industry faced economic disaster, and the specter of government takeover. One of the steps they made was the creation of INPO, the Institute of Nuclear Power Operations. Over time it has become recognized for its contribution to changing the lax safety culture within the industry and helping to restore public confidence in nuclear power.

The oil and gas industry should follow in their path...not to clone an organization like INPO, but to create an organization that accomplishes what INPO has done in its sector.

This is particularly crucial if the government is going to successfully evolve away from a highly prescriptive regulatory system to a “safety case” model.

As envisioned, the Safety Institute could facilitate a smooth transition to a regulatory regime that requires systems safety engineering, improved coordination between operators and contractors, and that shifts overall responsibility to the operator to demonstrate it can maintain safe operations at all times.

The institute should drive continuous improvement in practices by incorporating the highest standards achieved globally, including but not exclusively those set by the American Petroleum Institute (API).

Of highest priority is to benchmark safety and environmental practice rules against what are truly the current best practices within the industry. The Safety and Environmental Management System Recommended Practice 75 (API RP 75) developed by API and incorporated by reference in the Department of the Interior’s new Workplace Safety

rules is a good start, in that it has the right categories, but it should be updated to be more specific, more comprehensive, and include much more accountability and feedback.

The new Safety Institute should mandate early adoption of the revised safety standard across its membership and require members to make following the safety rules a prerequisite for their contractors and other service providers.

Auditing must be a key function of the Safety Institute. The audit process and follow-up should be able to assess a company's safety culture and its commitment to principles of system safety in practice, from design and operations to incident investigation and feedback.

Audit results would be used to provide performance feedback to the companies at various levels, as well as to prepare case studies for shared learning and to contribute data that can be aggregated for trends analysis.

The audits should be used to monitor and measure the system safety performance of member companies. Results should be used to hold companies accountable for their performance to each other and to certain business counterparts such as joint venture partners, suppliers, insurers, or investors.

The Safety Institute might reinforce the member companies' accountability to one another through annual meetings that would compare safety records, approaches, and best practices, offering awards for top performers. Accountability could be enhanced by a requirement that companies report their audit scores to their boards of directors and insurance companies. All of this is accepted practice in the nuclear industry.

The main interest is to drive improvement in absolute performance in all companies.

The Safety Institute should be of, by, and for the private sector. It will need to be created by the CEOs of leading companies and run by a director with unimpeachable integrity and a record of success in industrial process safety that will be respected by member companies and believed by the public.

The companies should provide sufficient resources to support a well-funded, well-staffed, highly professional team that will take a systems approach to risk management and process safety, able to identify cross-cutting risk factors, including leadership, ethics, behavior, and engineering.

How the Safety Institute ultimately gets structured is something the oil and gas industry needs to work out. But I would ask you to consider two things:

First, to be credible, this has to be a truly autonomous organization. With all due respect, it can't be a subsidiary of API. The American Petroleum Institute is a tremendously effective advocate and has made real contributions in terms of setting

operational standards for the industry. But for this entity to work, it truly must function, and be perceived, as having only one mission. . . to drive industry safety and risk management behavior ever higher. It can't have competing agendas. This is the way the nuclear power industry has successfully approached the tension between advocacy and safety.

Second, while there would be start up and operational costs to industry in establishing a Safety Institute, they would be minimal compared to the benefits.

Think about how much Exxon had to spend, in dollars and reputation, in the wake of the Exxon Valdez. Exxon spent \$2 billion on cleanup, \$1 billion on a fine and settlement with the Justice Department, and was obliged after protracted litigation to pay another \$1 billion to aggrieved Alaskans. Twenty years later, look at the multiple BP will likely pay for its role in the Deepwater Horizon disaster. The costs, in cash and reputation, are increasing exponentially. You can invest in safety now, or you can pay for failure later. An oil spill of national significance may now put the very survival of any but the largest company in peril.

The oil and gas industry can't afford another mistake. It clearly has the expertise, innovation and imagination to keep another mistake from happening. All that is required, in Rex Tillerson's words, is to make safety a shared value.

And that is precisely what your country is asking you to do. In two Oval Office meetings with the President he has emphasized that oil and gas are vital to America's economy and that he wants to see an oil and gas industry that is profitable and successful. So do I and so does the National Commission. I believe we will point the way forward in deepwater. And I profoundly hope that the industry determines that it is in its own interest to accept our advice.