

International Regulators Offshore Safety Forum Day 1

Session Summary Notes

Day 1 Summary

When:	Wednesday 30. March 2005
Chair:	
Morning Session	Mr. Taf Powell, Director of Offshore Division, Health & Safety Executive, UK
Afternoon Session	Mr. Magne Ognedal, Director General, Petroleum Safety Authority, Norway
Afternoon Roundtable Discussion	Mr. Bud Danenberger III, Chief of Offshore Engineering and Operations, Minerals Management Service, USA Mr. Taf Powell, Director of Offshore Division, Health & Safety Executive, UK

Introduction to morning session:	<p>Mr. Powell brought the Day 1 morning session to order by welcoming attendees and introducing the three Keynote Speakers, Ms. Gayle Norton, Mr. Dagfinn Høybråten, and Mr. Malcolm Brinded.</p> <p><i>Gayle Norton, Secretary of the Department of the Interior, USA:</i> Ms. Norton highlighted the magnitude and importance of offshore oil and gas. From providing around 34% of global oil and 28% of global gas production in 2004, offshore oil and gas are forecast to provide 39% and 34% respectively by 2015. Ms. Norton indicated that the growth of offshore production is contingent on the success of industry's safety and pollution prevention programs. She then outlined some of the challenges that regulators face:</p> <ul style="list-style-type: none"> • Acknowledging the importance of offshore production without compromising our regulatory responsibilities. • Ensuring that new technologies are effectively employed and that the safety implications of these technologies have been fully considered. • Meeting the challenges of an industry that is merging the use of large/heavy structures with new high-tech systems. • Ensuring that risks associated with the uncertainties of offshore operations are effectively managed. • Anticipating and preparing for the unexpected. • Understanding and learning from accidents to prevent their recurrence. <p>Also, as operations move into new environments, such as deep water and Gulf of Mexico and ice conditions of offshore Alaska, these environments present additional technical challenges for the industry and regulators.</p>
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Ms. Norton then discussed these challenges in the context of offshore operations in the US and emphasized how international communication and cooperation has benefited the US offshore regulatory program through international research partnerships, sponsorship of international workshops, and the IRF. She closed by encouraging regulators and industry to continue learning how to improve operating practices and how best to regulate so that we may meet today's challenges and the new challenges that will present themselves in the days ahead.

Mr. Dagfinn Høybråten, Minister of Labour and Social Affairs, Norway: Mr. Høybråten indicated that the challenge for all nations is to find good solutions to HSE issues for the combined benefit of the companies and the workforce and for sustainable growth in the society as a whole. In administering the scope of his responsibility which covers the whole Norwegian working life, including health, safety, and the environment and contributing to preserving value creation, Mr. Høybråten is totally committed to an HSE system as a means to avoid catastrophes, work related illnesses, and injuries that in any way exclude people from working life, thus becoming a client of the welfare system. He emphasized that HSE is both an ethical and economic issue.

To answer the question 'Is HSE regulation a threat or opportunity to value creation?' Mr. Høybråten indicated that prevention is far cheaper than correcting errors, fixing breakdowns, or coping with emergencies. Having said that, he indicated that it is important to ensure that regulations do not constitute unintended obstacles to cost efficiency. This is why the Norwegian HSE regulations are based on functional, rather than detailed requirements. Internationally, there are also cost implications to HSE regulations, and these challenges can only be met by a coordinated effort from the regulators and industry. Mr. Høybråten pointed to the work between the North Sea Offshore Authorities' Forum and the International Association of Drilling Contractors to develop the Northwest European HSE Case to simplify the movement of mobile drilling rigs from one country's shelf to another.

Mr. Høybråten noted that as the Norwegian shelf becomes a mature province, the need for cost savings has focused the industry to find alternative development concepts. This challenges the regulatory understanding of the business and how regulation should be carried out. He indicated that HSE matters are a management responsibility and that new ideas for how best to foresee threats to the industry's HSE performance need to be discussed in management meetings and company boards.

In conclusion, Mr. Høybråten indicated that whereas petroleum companies and the workforce of the industry have formed their international organizations, regulators have just started. Because the industry is a global industry, he sees that cooperation between regulators is important to the industry and is a major key to continuing improvements in safety and efficiency.

Malcolm Brinded, Vice Chairman to the Committee of Managing Directors, CEO Exploration and Production, Royal Dutch/Shell Group of Companies, Netherlands: Mr. Brinded began by

emphasizing that we can never take safety for granted in an industry that operates in hostile and unpredictable conditions and that is constantly adapting technologies and ways of working to replenish production. In partnership with regulators, industry has worked hard to improve safety performance and these efforts have made a real difference in preventing accidents and saving lives. But accidents still happen and we need refocus our efforts on why failures still occur and how to prevent them.

Mr. Brinded indicated that improving safety depends on two main things -- leadership and partnership. How well industry leaders understand what drives safety and inspires those to achieve it, and how well we work in partnerships to enhance safety, are the key.

The IEA indicates that in 2030, the world will need 60 percent more oil than in 2000. At the same time resources in major consuming countries are being depleted. New ways of supplying energy are being developed, but the transition will take a long time and the world will depend on oil and gas for many decades to come. Maximizing recovery will take continued investment and constant innovation, including extending facility life, working across borders to extend production, and developing new resources in more difficult conditions, such as deep water and Arctic seas.

To meet these challenges safely, we need to consider why do safety failures still occur after such sustained effort to reduce them? Investigating the Brent Bravo accident in the North Sea was a reminder of the importance of going deeper into accident investigations. In addition to using their *Tripod* approach for finding the root causes of accidents, Shell employed an approach called *Deep Learning* that is used by Shell Chemical in the US. This approach makes the case that every one in an organization, even when they are trying hard to do their best, is part of the system that produces both good and bad results. Deep Learning teaches people to challenge their beliefs about how the system works, recognise what really happens, understand their part in the system, and develop their own corrective actions.

Mr. Brinded suggested that the industry go forward by asking if the safety systems we have developed are too complex. He suggests that non-prescriptive regulation together with company design standards had created unnecessary complexity.

Mr. Brinded closed by stating that safety is not something that can be accomplished by a few people; it depends on everyone. Leaders must inspire others to share this value. Additionally, industry and regulators in partnership need to develop a common understanding about how best to respond to the safety challenges with out inhibiting innovation and investment. An important component of this is standardisation. He encouraged regulators to have an agenda of industry and regulatory standardisation wherever possible to add simplicity and clarity to an industry that increasing works across borders.

<p>Introduction to afternoon session:</p>	<p>Mr. Ognedal brought the Day 1 afternoon session to order by introducing the two afternoon speakers, Professor Andrew Hopkins and Dr. Stephen Bornstein.</p> <p>Professor Andrew Hopkins, Australian National University, Australia: Andrew Hopkins paper first looked at the nature of the various existing regimes. These can broadly be broken into those that favour a more prescriptive regime and those that favour goal setting, though by and large most regulatory regimes began at the prescriptive end of the spectrum. An interesting point is whether it is necessary in any new regulatory regime in a new "cultural" environment to begin with prescription and evolve into goal setting? How quickly could that change take place (assuming that there had to be a change and that it was not possible to impose a goal setting regime in the first place)?</p> <p>Andrew then went on to look at inspection consistency in non-prescriptive regimes and in particular the far greater responsibility that such regimes place on the Regulator, and the greater difficulties of maintaining consistency of approach or message.</p> <p>Andrew then proposed six strategies for regulators that would help to drive the health and safety agenda:</p> <ul style="list-style-type: none"> • Auditing the auditors • Proactive investigation • Supporting company safety staff • Advising on organisational design • Exposing performance • Promoting regulatory crisis <p>Dr. Stephen Borstein, Memorial University of Newfoundland, Co-Director of SafetyNet, Canada: Stephen Bornstein then gave us an interesting paper on whether different HSE regulatory approaches (goal setting or prescriptive), or a more stringent regulatory had a negative impact on national economic development. His conclusion was that overall there was no substantial grounds for concern, but did caution that the available research was sparse.</p>
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<p>Round Table Discussion 1:</p>	<p>Round table discussion 1 was a discussion of the Role and Integrity of the Regulator.</p> <p>Mr. Danenberger and Mr. Powell, chaired this roundtable session and presented some ideas and hints with regard to highlights from the presentations that could be debated by the various tables. For the round table discussions the discussion topic split into three areas:</p> <p>Tables 3, 6, and 9 discussed the advantages and disadvantages of prescription and how inspection consistency could be improved in non-prescriptive regimes.</p> <p>Tables 1, 4, 7, 10, and 12, considered the first three of Andrew Hopkins 6 strategies for regulators, the value of each strategy as an approach, how could they be used, and whether any have been used/tried and with what success or effectiveness.</p> <p>Tables 2, 5, 8, 11, and 13 considered the last three of Andrews 6 Strategies for regulators, the value of each strategy as an approach, how could they be used, and whether any have been used/tried and with what success or effectiveness.</p>
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For each of these areas a set of questions was provided to help trigger and stimulate the debate.

Questions for Tables 3, 6, and 9

1. What do people think of the statement that prescriptive regimes that rely on persuasion have been relatively ineffective? Do you rely on persuasion or do your regulations have provision for penalties/fines? If yes, are these provisions regularly exercised?

Do you feel your prescriptive regime is effective? What measures do you have to measure effectiveness?

2. Does regulatory capture occur in your regulatory setting? In what ways? What mechanisms do you employ to prevent or minimize this?
3. Some regulators have moved from a prescriptive regime to a safety case or goal-setting regime. In your view, how difficult was this transition? Are there still outstanding issues with the new regulatory arrangement whereby you don't feel you have the same level of comfort in the safety approach as you did with the prescriptive regime?
4. Is there agreement that prescriptive based regulations discourage innovation in risk management? If in a goal setting regulatory regime, operators are not compelled or bound to adhere to guidance documents or codes which are the regulators suggested ways of how the general duty of care can be met, then where is the incentive for the operator to be innovative with risk management beyond the basic need to prove due diligence?
5. Mr. Hopkins writes (on page 7) that: "...in a non-prescriptive regime it is the inspector on the spot who must make judgments about risk. A non-prescriptive regime, in short, places far greater responsibility on its inspectors." How do you maintain consistency of approach and message, to an operator and facility leadership, when each inspector will obviously have different interpretations of risk, based on their educational and experience background? Is this an issue or would the guidance be sufficiently precise to avoid such conflicting opinion?
6. In a duty of care regulatory scheme where there are existing prescriptive requirements as well, should these prescriptive requirements be viewed as 'minimum' requirements for the equipment/system/procedures for which they were designed? Or is there a place in enforcement for identifying the failure to identify a hazard and reduce the risk that existed even though the prescriptive requirement was complied with?

Questions for Tables 1, 4, 7, 10, and 12

1. Andrew Hopkins has, by drawing on contemporary research about how organizations operate and how accidents occur, identified some interesting new strategies for regulators. His view is, among other things, that there is clearly a role for regulators in encouraging auditors to ask more probing questions about the effectiveness of the organisation's risk management system. If regulators regularly find problems that company audits have failed to identify, the audit

system can be expected to undergo continuous improvement. It is, in short, to audit the auditor.

Do you agree that auditing the auditors will have such an effect? How easy is it for regulators to find problems that the company audits have failed to identify?

2. Another strategy that Hopkins suggests is to carry out more proactive investigations. All accidents, major and minor, are preceded by warning signs, indications that something is amiss, which, if attended to, would have averted the accident. Proactive investigation is really a strategy for taking these warning signs seriously and identifying ways in which safety management systems may be failing, before an accident occurs.

Do you agree that this is a task for the regulator or is it for the companies themselves? If the regulator should carry out such proactive investigations, what will it require in terms of competence and resources?

Will such proactive investigation by the regulator contribute to causing a shift of the duty of care from the company to the regulator?

If the company does this, how do regulators ensure that the companies are doing it properly?

3. One of the new strategies noted in the paper is Supporting Company Safety Staff. In an ideal arrangement, the company safety staffs are following through on the safety culture that senior management should already be supporting. If there are "unpopular lines" that a safety officer is pursuing, to the extent that they are looking for regulator support, then doesn't this raise a question regarding the importance of safety first with the corporate management, which in turn raises concerns in a "duty of care" regulatory regime?

Is this a concern? In other words: Do you believe safety staffs are often on collision course with senior management?

4. Hopkins suggests there is value in supporting company safety staff and workforce safety representatives. If company safety officers can appeal to regulators for support when they take an unpopular line, their clout is enhanced. If regulators seek them out and consult with them, and then champion their concerns at a higher level, their influence is expanded. Creating an alliance with these internal compliance agents is therefore a valuable means of promoting better risk management.

Or, do you believe there already exist such alliances between regulators and safety staffs as described in most regimes?

What do you think are the benefits of creating an alliance with these internal compliance agents? Are there any disadvantages with regard to this approach?

Questions for Tables 2, 5, 8, 11, and 13

1. Hopkins points out the need for organizational redesign to promote a safety culture and that the regulator should give guidance and support in this effort. What are the pros and cons of regulators advising companies on internal organizational design?

Are there corresponding changes in regulatory organizational design that could support this?

2. Good safety performance depends on the commitment of the top management. A crucial question from the regulator's point of view is how to motivate top management to make this commitment. One way to do this is to measure and publicise organisational performance with respect to various indicators. Managers are fiercely competitive about their performance, proud of good performance and embarrassed by poor performance. Such embarrassment leads to a redoubling of efforts to do better.

Do you agree that to measure and publicise organisational performance will have such an effect, and should performance measuring be a task for the regulator?

3. Exposing company performance as a strategy would appear to have Pros and Cons with publishing information:

- **PROS** would include: public awareness of the measures and performance of the industry and the regulators; ease of sharing learning both inside and outside the industry; the "shame" factor as noted in the paper.

- **CONS** would include: confidentiality of information issues; potential reluctance for provision of information that generate a negative public opinion; outcries as a result of persons/groups taking information out of context

Do the benefits outweigh the obstacles?

4. One approach that has been used by regulators to get good data for measuring safety performance has been to sanitize the data or have it gathered by a third party so that when publicized, data cannot be attributed to individual companies. Some see this as an effective way to get companies to cooperate and report critical data needed to evaluate safety performance over time.

Do people agree that this is effective? If so, can these efforts continue when a regulator at the same time is seeking to publicize information about poor performers?

Is there a need for international agreement on the suitability of performance measures and on the means to ensure reliability?

5. Hopkins suggests a role for the regulator in creating regulatory crises for companies. Regulatory action following a major accident can be expected to intensify the crisis for the company in various ways. However, even in the absence of a major accident, there are ways in which regulators can promote a regulatory crisis for organizations that do not appear to be sufficiently focused on

safety. What are ways other than capitalizing on perceived breaches (i.e., Hopkins indicates there is no connection between crisis and compliance)?

Similarly, if regulators issue improvement or prohibition notices, Hopkins indicates they should publicise this action so as to gain maximum leverage. The failure to publicise regulatory action seriously undermines the potential impact of the action.

Do you agree that to create such crisis is a useful approach to bringing about an opportunity for greater compliance and focus on safety?

Are there regulatory regimes in which such an approach is not permitted or accepted?

Can promoting a regulatory crisis have a negative backlash against the regulator that might hinder their future enforcement capability? If so, what should regulators do to minimize this risk?

What are the pros and cons of emphasising personal liability?

Highlights of Table 3 Report Back and Other Table (#6 and 9) Comments:

- The discussions identified advantages and disadvantages from both prescriptive and non-prescriptive regulatory approaches, including:
 - For developing countries, a prescriptive approach may be the best initial choice as less infrastructure is required. A goal-setting regime requires a certain maturity among all parties involved. One idea its to introduce goal setting in certain defined areas.
 - Different legal cultures may complicate the use of goal setting regulation, especially for contractors and others that work in many countries (what is not allowed/what is required).
 - Goal setting requires another type of skills among inspectors; goal setting allows the operator to use a variety of options for solutions, and inspectors must be able to address this.
 - Prescriptive approach can be effective with the use of audits, log checks, etc.
 - Prescriptive regimes may limit innovation and prevent employees for taking real ownership for improvement.
 - Prescriptive approaches may have more difficulty making needed changes to address new operator needs/technology.
 - Goal setting requires another type of skills among inspectors; goal setting allows the operator to use a variety of options for solutions, and inspectors must be able to address this.
- Occupational health should be more prescriptive.
- Certainty of the process/regulations and continuity is of paramount importance; more so than the prescriptive vs. non-prescriptive approach.
- Persuasion can work if the regulator is credible.
- The regulator must be vested with authority to apply penalties when deemed necessary.
- Whether Regulatory Capture occurs is probably less dependent on the type of regulatory approach (prescriptive vs. non-prescriptive). It is more dependent on the consistent application of polices and

practices; this will lend support to regulator autonomy.

- The regulator's role should not be to "inspect safety into" the installations, but to identify possible deficiencies in management systems.

Highlights of Table 7 Report Back and Other Table (#1, 4, 10, and 12) Comments:

Discussion of Andrew Hopkins' first three recommended regulatory strategies – auditing the auditor, proactive investigation, and supporting company safety staff, drew out the following points.

- Auditing the auditor
 - This can be effective; don't audit everything, but ensure the company audit process is covering the necessary risk elements.
 - Regulators can learn from each audit and pass learning on to other operators.
 - Some regulators audit their own inspectors; examining a process will improve it.
 - Auditing internal audits strengthens the entire organization, but rare to see internal audits critical of management.
 - Recommendations need to be smart
 - After audit, management should follow-up on implementation.
 - Competence of auditors is important.
 - Risk based auditing is good approach.
 - Developing guidelines for auditing is useful.
 - Weaknesses will not be found using a "check-box" type audit.
 - Looking at the operator's audit process is the key.
- Proactive Investigation
 - Investigation should be the responsibility of the operator.
 - This should be an element of the audit process.
 - Near misses should be thoroughly investigated.
 - How to identify – if inspection finds a problem, look at how system allowed it to happen.
 - When a problem is found, trace back through the company management to find cause.
 - Must be selective in doing this because they are resource intensive.
 - Use the information we have to be more proactive.
 - Shell's *Tripod* system mentioned – trying to find where failures may occur; statistics are important.
 - Operator has overall perspective of all operators that can help them identify issues to focus that they see in more than one company situation.
 - Preferred that regulator and company do investigation together
- Supporting Company Safety Staff
 - Safety staff can use the regulator to help leverage management; however there is a concern not to diminish the importance of the Safety Manager.
 - Have HSE person participate in inspection process.
 - Focusing on concerns of safety officers helps company and regulators learn to improve systems.
 - Must do it in the right way; trust and cooperation is important.
 - Idea – build an HSE step into the CEO position as an upper management path.
- Industry and the regulator need to work together; safety is about

creating galvanisation, but regulators also need to be independent.

Highlights of Table 11 Report Back and Other Table (#2, 5, 8, and 13) Comments:

Discussion of Andrew Hopkins' last three recommended regulatory strategies – advising on organizational design, exposing performance, and promoting regulatory crisis, drew out the following ideas:

- Advising on organizational design
 - Can advise on organizational goals.
 - Regulators can have an influence at a high level
 - Advise would be helpful to a degree, especially for smaller companies
 - It is not clear how regulator would know enough about company organization to advise.
 - Might cause transfer of responsibility to regulator.
 - Could lead to organizational disparities if all national regulators so approach global companies
 - Focus should be on working with industry to develop understanding on what a good safety culture would be.
 - One country mentioned intervening with companies to raise HSE with operators.
 - May be problem for single-issue regulators in advising companies with integrated HSE culture.
 - Diversity of companies – one size does not fit all.
 - Advice could be through probing questions and pointing to good examples rather than instruction.
- Exposing Performance
 - Could be a motivating factor.
Companies don't know what good performance is (compared with others); exposing performance can help companies learn from others; it can also help improve data management.
 - On occasion use as a vehicle for pressure of significant event.
 - Publish for transparency of our regulatory organization.
 - Respond to inquiries by third parties as to regulatory action.
 - Should also reward for good performance.
 - Could discourage reporting.
 - May also result in public relations challenges if not well handled.
 - May promote arguments about validity of data.
 - Might damage trust between regulator and company.
 - Question – is non-attributable data publication useful?
 - Question – do we need international agreement on performance measures?
 - One standard set of measures would be helpful if possible.
- Promoting regulatory crisis
 - Don't do just for crisis sake.
 - Must be used selectively through guidance.
 - We need a better term than 'crisis.'
 - Could help disturb complacency.
 - Better for regulator to use influence rather than crisis, if possible; but a 'manufactured' crisis is better than a real one (such as major accident).
 - Would use where there is a perception by regulator of an industry-wide problem that has been observed.

	<ul style="list-style-type: none">- Could damage working relationship.- Crisis could get out of control; no guarantee of being able to exploit the opportunity crisis creates.- Question – what ways can regulators promote crisis <u>other than</u> capitalizing on perceived breaches?
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