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# A JOURNAL FROM THE PETROLEUM SAFETY AUTHORITY NORWAY

IS SAFETY AT RISK? WHAT DO YOU THINK? ERNA SOLBERG ELDAR SÆTRE LEIF SANDE BRIAN SALERNO



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# WHAT DO YOU THINK?

Cost cuts, downsizing, restructuring and efficiency improvements have lately been keynotes in the oil and gas sector.

When oil prices fell, the petroleum industry had to be restructured for a new reality. The changes were extensive, and came suddenly.

At a time when everyone's eyes are focused on cost cuts, the PSA has expressed concern and asked *is safety at risk?* Is it at a crossroads? That is also the main theme for this issue of *Dialogue*.

We have put that question to a number of people inside and outside the petroleum sector, and obtained responses from Norwegian prime minister Erna Solberg, Statoil CEO Eldar Sætre, director general Bente Nyland at the Norwegian Petroleum Directorate and BSEE head Brian Salerno, among others.

Openness, discussion and dialogue are important preconditions for the ability to conduct petroleum operations in a secure and prudent manner.

The questions and answers presented in this issue form part of the debate. Safety-related developments affect us all, and we urge you to discuss this issue with your own circle.

#### What do you think – is safety at risk?

Welcome to a constructive debate.

Øyvind Midttun Editor What happens to safety when much of the attention is concentrated on savings and cuts? Is Norway's largest industry at a crossroads which challenges the ambition of improvement and risk reduction?

**BY: INGER ANDA** 

ost people believe that the petroleum sector's current focus on enhancing efficiency and reducing costs will persist for some time to come.

"The industry is challenged by low oil prices," acknowledges Anne Myhrvold, director general of the PSA. "Costs were very high for a time. So the new reality, with its big budget cuts, contrasts sharply with the years when all the curves were rising."

### CHANGES

Norway's oil and gas sector is currently experiencing downsizing and major organisational changes. Experienced personnel are leaving, and could be lost for ever.

The process is so rapid that it can be

difficult to keep up. Companies are under pressure to maintain production for as long as possible without compromising on the demand for prudent operation.

"We don't accept a development which abandons the ambition for continuous improvement," Myhrvold emphasises. "Several signals in recent months have indicated that it's time to call a halt and analyse what's happening.

"The companies *must* manage risk in their operations every single day. Working together, we'll develop a sector which learns lessons and is focused on preventing major accidents.

"Times like these put the industry to the test. Challenges must be tackled and owned by the companies, the unions and the government. Everyone must get involved – that's the only way we'll succeed."

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### SHORT-TERMISM

Myhrvold accepts that it could be tempting in such conditions to turn to quick fixes, but stresses that short-termism both can and will bring its own punishment.

"If the petroleum sector fails to look ahead, both individual companies and the industry as a whole will be penalised," she emphasises.

"We're concerned to apply a long-term view in our own assessments and decisions on such issues as design selection, technical quality, organisational considerations and overall spin-offs from the choices made.

"In parallel with that, the companies must be certain that the decisions they make today also lay the basis for prudent operation down the road."

Myhrvold thereby makes it clear that the

players cannot compromise on safetyrelated considerations, and adds that both the Storting (parliament) and the government want Norway to be a world leader for health, safety and the environment (HSE).

She notes moreover that an adaptable sector will be a strong one. "An industry which can't change isn't one with a future."

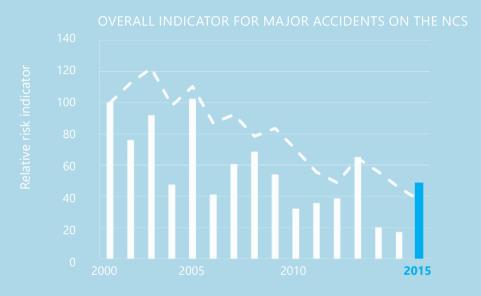
### CROSSROADS

"Although petroleum operations in Norway are at a crossroads in many respects, we must jointly ensure that changes don't affect safety work," Myhrvold concludes.

"I'm convinced that it's possible to work along two axes simultaneously – saving money through more efficient operation while strengthening the commitment to enhancing HSE."

# NUMBERS TALK

# Figures from the PSA's survey of trends in risk level in the petroleum activity (RNNP) for 2015 show negative developments in a number of areas. That is a concern for the authority.



# MORE HYDROCARBON LEAKS

Hydrocarbon leaks and well control incidents are important contributors to major accident risk. Ten hydrocarbon leaks greater than 0.1 kilograms per second were registered on the NCS in 2015.

This is the largest number recorded since 2011. The corresponding figure on land was 13, up from seven in 2014.

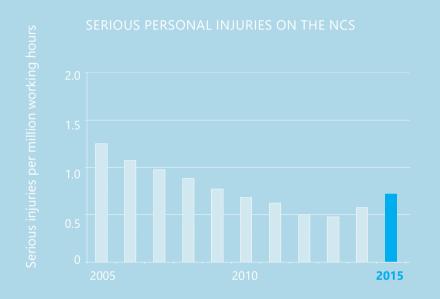
The contribution to the overall indicator in 2015 was on the high side.

## 15 WELL CONTROL INCIDENTS

The 15 well control incidents registered in 2015 represent a slight decline from 17 the year before, but a rise in the risk potential. None of the incidents fell into the very serious category.

## BARRIERS CONTINUE TO WORRY

Results for barrier management also show that the companies face challenges in meeting the industry's own requirements in certain areas. Although no direct relationship can be demonstrated between the RNNP findings and the changes being experienced by the industry, it is important to see whether these results are representative for a trend.



## RISE IN SERIOUS PERSONAL INJURIES

The number of serious personal injuries rose in 2015, when Norway also suffered its first fatal accident offshore since 2009. This incident occurred on 30 December, when a wave hit mobile unit *COSLInnovator* and caused substantial damage to the quarters module. One person was killed. In a longer perspective, the frequency of serious personal injuries was in decline during 2005-13. That has been replaced by a rising trend over the past two years.

A parallel development has also been witnessed at the land-based plants, where the level of serious accidents was the third highest since measurements began in 2006.



Is safety at risk? Is it at a crossroads where the ambition of continuous improvement and risk reduction has come under challenge?

The PSA has posed this question on a number of occasions over the past year. In this issue of *Dialogue*, we have asked a number of people both inside and outside the industry to share their views with our readers.

You will find their responses on pages 10 to 24. The 10 people interviewed have provided both wellconsidered and very diverse views on the subject.

# WHAT DO YOU THINK?

ERNA SOLBERG

Prime minister of Norway.

The Storting (parliament) and government want Norway to be the world leader for health, safety and the environment (HSE) in the petroleum sector. Why is this ambition important?

Our petroleum industry is a pioneer in many ways, both at home and internationally. Constant technological progress, new production solutions and innovative ways of organising the work have been important in achieving a profitable industry, and that's been important for the country as a whole.

I believe it's natural that our oil and gas industry also takes the lead on HSE. In Norway, we give perhaps greater weight than other places to avoiding accidents and pollution and to conducting production under safe and prudent conditions.

Everyone must be assertive, innovative

and constantly seeking good new solutions which make production safe for workers and the environment while also being efficient.

This means that employees and their unions, licensees, operators, suppliers and the government – in keeping with our good traditions – must jointly develop efficient HSE solutions.

I believe we're uniquely placed to continue working for a leading world role. That'll be to our benefit.

The oil industry is experiencing great changes and challenges in the form of cost cuts and downsizing. Does it nevertheless have room to prioritise work on continuous safety improvements?

Absolutely. Petroleum operations always involve a certain level of risk for major

Norwegian prime minister Erna Solberg visiting the Gudrun field in 2014. She believes it is natural that the oil and gas sector takes the lead on HSE. Photo: Harald Pettersen/Statoil



accidents and serious incidents. Neither the industry nor Norway can afford a major accident.

That applies naturally not only in purely human and environmental terms but also economically and for our national reputation.

There's only one method which we know works for avoiding such accidents, and that's systematic and thorough work to improve HSE.

Oil and gas have been crucial for Norway's progress in recent decades. How significant will this industry be for the country in the years to come? And how important will it be to maintain the present level of safety? The government and I have great faith in the future of the Norwegian petroleum sector. We've demonstrated this by making new acreage available both through the annual awards in predefined areas (APA) and in the 23rd licensing round.

Oil and gas are expected to continue contributing to growth and expertise development. However, this depends on safety being maintained at all times.

That was also a key topic when I visited the PSA in Stavanger last autumn. It's not only important to maintain the present level of safety – this must also be further enhanced in line with the general development of the industry.

The PSA's annual study of trends in risk level in the petroleum activity (RNNP) for 2015 sounded in many respects a warning, with a number of important indicators moving the wrong way. Last December, the petroleum sector experienced its first fatal accident since 2009, and 13 people died in April's helicopter accident off Turøy. Have you any thoughts, as prime minister, about the way the industry should work to prevent accidents and maintain the level of safety in the future? The fatality on *COSLInnovator* and the Turøy helicopter accident were tragic incidents which affect the whole nation.

No efficiency improvements and cost cuts must be made at the expense of HSE.



They serve as brutal reminders of how important it is that safety always comes first in both petroleum and aviation sectors.

The PSA has reported an unusual number of incidents and a weak but systematic negative trend in 2015. That's worrying. I expect both employers and unions in the industry as well as the responsible authorities to have the right ideas, as well as the willingness and expertise, to shift developments onto a more positive track.

No efficiency improvements and cost cuts must be made at the expense of HSE. I would urge everyone to collaborate both at company level and in the fora established to bring all sides together.

We have earlier seen employers and unions in the petroleum sector managing to reverse a negative trend, and I am confident that they can accomplish this again.

Systematic and detailed work to improve HSE is necessary to avoid major accidents, emphasises prime minister Erna Solberg. Archive photo: Morten Berentsen We can't accept that the progress we've seen over many years goes into reverse.

# WHAT DO YOU THINK? ELDAR SÆTRE

CEO. Statoil.

#### Is safety at risk?

Safety is our most important duty. We've delivered ever better results in this area over many years, and everyone working in the industry is responsible for ensuring that such progress can continue.

The conditions identified in the PSA's [RNNP 2015] report need to be treated with the utmost seriousness. We can never sit back and be satisfied, but must work constantly to maintain and strengthen safety.

#### What's the basis for your conclusion?

We can't accept that the progress we've seen over many years goes into reverse. The 2015 results mean we must all reflect on whether we're doing the right things and on how we can strengthen safety.

Norway's petroleum sector is characterised by a robust HSE culture, and we have a high level of safety on the Norwegian continental shelf (NCS). On that basis, we must succeed in creating even better results in the future.

What's needed to maintain and improve the level of safety in Norway's petroleum sector? Leadership, good risk understanding and a continuous focus on safety are essential. The systematic work of improving HSE never ends.

Good collaboration between government, operators and suppliers has yielded a high level of safety on the NCS, and remains the key to creating good results in the time to come.

The RNNP results for 2015 sounded a warning, with several important indicators showing a negative trend. What do you think are the reasons for this development?

We're now conducting a very thorough review of the RNNP report, and see that the PSA's conclusions accord with our own evaluations.

The seriousness of these findings and their complex causes mean that detailed assessments are needed before making judgements. So it's too early to identify individual factors.

How will Statoil contribute to continuous safety improvement? As the biggest operator on the NCS, we work purposefully and systematically to strengthen safety in our activities. In that context, continuing to concentrate attention on major accident risk is important.

We're not satisfied as long as we have serious hydrocarbon leaks. It's very important that we learn the full lessons of serious incidents, work actively to enhance HSE and use the PSA's observations to drive further improvement. 🕦

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# WHAT DO YOU THINK? BENTE NYLAND

Director general, Norwegian Petroleum Directorate.

#### Is safety at risk?

It's an important warning to the industry when the PSA expresses concern about safety trends on the NCS. We're living in demanding times.

The tripartite collaboration between the safety regulators, the companies and the unions has been important in driving safety work forward. That must continue to be the case.

Although oil prices have been rising in recent months, stringent requirements are set for cost reductions in order to maintain profitability in the industry. It's crucial that such cuts aren't made at the expense of safety and that the Norwegian petroleum sector maintains its leading role in this area.

A high level of safety is essential for conducting offshore operations. Norway's petroleum industry is the world leader for working safely in this sector. Retaining that position is important.

Accidents offshore attract great attention. An incident on the NCS could have major consequences for both people and the environment, and will affect the whole industry's reputation. A good name is important for the companies' licence to operate.

Our main objective is to contribute to creating the greatest possible value for society from oil and gas activities by means of prudent resource management, taking account of health, safety, emergency preparedness and the natural environment, including the climate.

Photo: Emile Ashley



# WHAT DO YOU THINK? HUGO HALVORSEN

Project leader, Working Together for Safety (SfS). SfS is an arena for employers, unions and government, and a forum for best practice in the petroleum industry.

#### Is safety at risk?

In my view, the whole industry is at a crossroads – and safety is part of this sector.

Suppliers are now being given greater responsibility, including over the choice of equipment, while having to operate with lower margins. That could boost the risk of picking solutions which are uncoordinated or suboptimum for safe operation.

Maintaining expertise is another challenge. Training companies report a big decline in course registrations. The revised version of Norsok R-003, setting expertise standards for mechanical handling, was recently refused approval.

Employees are concerned because competence requirements are under challenge. Similar concerns exist in the maritime sector over inadequate maintenance of necessary expertise certificates.

Innovation and new ideas are required for operating more safely and efficiently, but the industry remains sceptical about new solutions.

A method exists for pipe connection without welding, for example. This is safer and much cheaper, has been well tested and won an HSE prize at Kårstø,



Photo: Felix André Skulstad

but continues to be little used by the industry.

Finally, all change alters the risk picture and new risk elements must be met with new measures. The PSA will be an important player in ensuring that this happens.

The industry – including the PSA – must also get better at sharing its success stories, rather than concentrating solely on learning lessons from undesirable incidents.

# WHAT DO YOU THINK? BRIAN SALERNO

Director, Bureau of Safety and Environmental Enforcement (BSEE). The BSEE is the federal agency for HSE in the USA's offshore petroleum sector.

#### Is safety at risk?

Safety is best thought of as always being at risk, especially in inherently dangerous industries such as the energy sector where complacency can result in costly and life-threatening incidents.

To some extent, the way people approach safety is influenced by the prevailing economic conditions. However, safety mustn't be timed to the market – it needs to be a consistent priority, regardless of the economic pressures.

Taking a longer view, I believe the greatest threat to worker safety is cultural, even though regulatory regimes and industry standards are important components.

Ultimately, however, the companies and their employees who must make countless operational decisions on a daily basis will determine the overall safety of any given activity.

#### What's the basis for your conclusion?

To be truthful, a short-term linkage between oil prices and safety is not easy to track because safety incidents are often lagging indicators.

Moreover, changes have occurred in industry activity levels, while new safety regulations have paralleled the recent economic downturn.

However, most people involved with the industry acknowledge that an inherent relationship exists between safety and the price of oil.

Those of us who have interacted with the offshore industry for many years know that both positive and negative financial pressures can influence a company's approach to its safety responsibilities.

Fortunately, there are many in the industry who strive to maintain their focus on safety as the top priority, regardless of oil prices. I don't believe public demand for safe and environmentally sound operations will diminish. Quite the opposite is true. In the USA and elsewhere, public opinion has reflected increased concern about these issues.

The *Deepwater Horizon* tragedy was a watershed moment that underscored the potential risks and signalled the need to do better.

As the industry seeks to move into frontier areas, such as ultra-deepwater and high pressure/high temperature (HPHT) wells, there is no substitute for concurrently updating and improving the approach to safety.

# What's needed to maintain and improve the level of safety in the petroleum sector?

The eventual resurgence of energy prices will bring renewed interest in offshore oil and gas development. Although this will be welcome news for the industry, it is something which will have to be managed carefully from a safety standpoint.

We will probably see an influx of new workers, many of whom will require training. Meanwhile, a lot of experienced industry personnel may have permanently exited. The potential experience deficit is something that bears our collective attention.

As new capabilities are being developed, a growing need exists for better system safety awareness across the board. We need to do a much better job of sharing safety-related data, for instance.

Inspections and enforcement will always be vital components in an offshore regulator's toolbox. But an organisational culture which places a high value on safe operations is critical.

Changing a culture requires patience, but can be done with the aid of continual efforts. **①** 

However, most people involved with the industry acknowledge that an inherent relationship exists between safety and the price of oil. 

# WHAT DO YOU THINK? THERESE LOG BERGJORD

CEO of Compass Group Norge. ESS Support Services, ESS Mobile Offshore Units and Eurest are subsidiaries of Compass Group, which includes catering services on land and offshore among its activities. Bergjord is also a member of the board of the Norwegian Oil and Gas Association and vice president of the Confederation of Norwegian Enterprise (NHO).

#### Is safety at risk?

No. We don't compromise on safety, even in difficult economic times. Nor are we finding that our customers have changed or reduced the attention they pay here.

# What's the basis for your conclusion?

I'm very concerned with HSE work at times when much attention is devoted to improvement and changes to methods. We must work more intelligently, not harder.

If HSE results move in the wrong direction, we won't succeed in implementing all the changes needed to be competitive in the long term.

We're working to introduce a lean culture [a systematic approach to eliminating waste], with all employees involved, and discussing how we can organise in a better way.

That includes restructuring our warehouse, repositioning heavy objects and eliminating noise in



Photo: Øystein Andreas Bjerke

work processes. The HSE dimension is measured and followed up closely.

We've seen far better HSE results so far this year than in 2015, when sickness absence is disregarded.

#### What's needed to maintain and improve the level of safety in Norway's petroleum sector? I'd maintain it's safer to work intelligently. Continuing work on standardisation and simplification will libe-

work on standardisation and simplification will liberate capacity by focusing attention on HSE – even with fewer people to do the work.

We must ensure management capacity and training, and liberate the forces in the organisation which see the good solutions and support change efforts. They're our heroes, and will lift the industry into the next 50 years. Everyone washes their hands of it and claims it's not their responsibility.

# WHAT DO YOU THINK? LEIF SANDE

President, Norwegian Union of Industry and Energy Workers. Industry Energy has 61 000 members with 3 000 elected officers in Norway's offshore and land-based industries.

#### Is safety at risk?

My fear is that much has gone well for so long on the NCS that people are now relaxing their safety thinking when implementing cost-cutting policies.

I'm also fearful of our regulations. I'm frightened when a fatal accident occurs on the NCS because of an inadequate gap between sea and living quarters which people claim to be able to see with the naked eye.

Once something's been approved, it seems to be just rubber-stamped onwards. Everyone washes their hands of it and claims it's not their responsibility. That applies to DNV-GL, the PSA, operators, contractors and the Norwegian Maritime Authority.

We've acquired a bureaucracy characterised by shuffling paper. If you live in Norway, your car has to be EU-tested every other year. You can't offer a certificate from the previous check and ask to have it re-stamped. But that seems to be the case with acknowledgements of compliance (AoCs) and classification on the NCS.

The RNNP results for 2015 sounded a warning, with several important indicators showing a negative trend. What do you think are the reasons for this development? I fear there's been a relaxation at the oil companies and the authorities – and perhaps with us as well.

How will you at Industry Energy contribute to continuous improvement of safety? We'll work for more control, better follow-up of the regulations and avoidance of time pressures.

# WHAT DO YOU THINK? GRO GULLHAUG

Chair, Wintershall branch, Norwegian Union of Energy Workers (Safe). Process technician on Brage, with 27 years of experience in the industry.



Photo: Mette Møllerop/Safe

Is safety at risk? Yes.

What's the basis for your conclusion? Cost cuts are hitting offshore safety – that's the general impression I'm left with after talking to people in the industry.

Preventive maintenance is being challenged. The time between turnarounds has lengthened on most offshore installations. That challenges structural integrity.

No compensation is given for absence, except to cover emergency response roles or basic/security staffing. That imposes an added burden on the others aboard.

Less time is devoted to training, and a good deal of internal expertise on the platforms is disappearing. Emergency response courses are being cut back, the safety delegate service has been weakened, and experience transfer across trades, platforms and companies is down.

Contractors are being pressured on price, with consequences for work quality and solutions. Dismissing or laying off people while they're at work offshore poses a safety risk in itself.

# What's needed to maintain and improve the level of safety in the petroleum sector?

Earlier and better collaboration between the companies and the workers. We must jointly come up with a common solution which doesn't put safety at risk.

It's important to think long-term, even when things are tough. At a time like the present, with many cuts and reorganisations, highlighting safety is very appropriate. There's no point in being penny wise and pound foolish.

# WHAT DO YOU THINK?

# OLE ANDREAS ENGEN

Professor, Centre for Risk Management and Societal Safety (Seros), University of Stavanger. Engen chaired the committee of experts on supervisory strategy and HSE regulations in the Norwegian petroleum sector, which reported to the Ministry of Labour on 20 August 2013.

Is safety at risk?

Yes, I believe so – not least because of the cost challenges we've recently seen which are related to generally lower oil prices.

#### What's the basis for your conclusion?

The need to cut costs at oil companies and suppliers is an important factor threatening safety. Although people don't like to say it out loud, an opposition has always existed between safety and economics – and not just in the petroleum industry.

What's needed to maintain and improve the level of safety in the petroleum sector? We must first and foremost protect the strong institutional collaboration between companies, unions and governments over safety which exists in Norway. The PSA plays a key role there.

Second, we must ensure that the PSA continues to be a competent, strong and clear regulator which can keep abreast of the times and develop supervisory strategies tailored to tomorrow's challenges. We must first and foremost protect the strong institutional collaboration between companies, unions and governments over safety which exists in Norway.



Photo: Elisabeth Tønnessen/UiS

# WHAT DO YOU THINK? LINN KATRINE HØIE

Senior adviser on HSE and quality at Capricorn Norge. This company was prequalified as an operator on the NCS in November 2015 and operates two production licences in the Norwegian and Barents Seas. PL 856 in the latter region was awarded in the 23rd licensing round.

#### Is safety at risk?

Safety and accident prevention are about choosing the right road and appreciating that assumptions will be in constant flux. So I'd sooner use the term choice of route rather than crossroads.

Suitable choices of direction and a high standard of safety are the result of good decisions. We choose the road ourselves, and the speed we travel along it.

Safety on the NCS is and has been good for many years. We're the world leader, and I'm convinced we'll stay there.

So I'd maintain that safety isn't at risk, but that the factors which influence it the most – the organisations and people doing the work – are experiencing change and choices. Uncertainty creates worry and insecurity.

Even though the action now being taken is necessary, those of us who're responsible may perhaps have to look even more at the consequences of downsizing.

That involves performing systematic assessments of its consequences for safety in the short and long terms – before decisions are taken.

Good change leadership and risk management are the key, and I believe we have a big potential for improvement here. I'm convinced that we face many very interesting developments – including more crossroads which I think the industry will tackle well.



Photo: Kristin Kalgraff



"No efficiency improvements and cost cuts must be made at the expense of HSE. I would urge everyone to collabo rate both at company level and in the fora established to bring all sides together.

> ERNA SOLBERG Prime minister





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