INSIDE: MANAGING AGEING INFRASTRUCTURE

Stewarding Australia’s offshore assets in later life

page 10
ABOUT NOPSEMA
The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) is Australia’s independent expert regulator for health and safety, environmental management and structural and well integrity for offshore petroleum facilities and activities in Commonwealth waters.

By law, offshore petroleum activities cannot commence before NOPSEMA has assessed and accepted detailed risk management plans that document and demonstrate how an organisation will manage the risks to health and safety to as low as reasonably practicable (ALARP) and the risk to the environment to ALARP and with acceptable environmental impacts. For more information visit our website at nopsema.gov.au.

subscriptions
Subscribe to receive the latest news from NOPSEMA covering the regulation of health and safety, well integrity and environmental management. Visit nopsema.gov.au/news-and-media today!

ORDER HARD COPIES
NOPSEMA encourages duty holders to share The Regulator within their organisations and with the offshore workforce. To facilitate this action, NOPSEMA is happy to provide free hard copies of the magazine for distribution. To order, please email communications@nopsema.gov.au.

FEEDBACK
NOPSEMA welcomes feedback from our stakeholders. Please direct all enquiries about this publication to communications@nopsema.gov.au.

CONTACT DETAILS
Head office — Perth
Level 8, 58 Mounts Bay Road
Western Australia
P: +61 (0) 8 6188 8700
GPO Box 2568
Perth WA 6001

The information provided in this publication is intended to provide its reader with general information only and should not be relied on as advice on law, nor treated as a substitute for legal advice in any situation. NOPSEMA’s assessment of regulatory permissioning documents, compliance monitoring, and enforcement activities, are undertaken in accordance with the relevant legislation and associated regulations.
MESSAGE FROM THE CHIEF EXECUTIVE
EVERYTHING MUST GO
INITIATIVES TO PROTECT & PRESERVE THE ENVIRONMENT
THE RELENTLESS NATURE OF CORROSION
INSIDE: MANAGING AGEING INFRASTRUCTURE
STEWARDING AUSTRALIA’S OFFSHORE ASSETS IN LATER LIFE
WORKING WITH YOUR OFFSHORE TEAMS
ENSURING REGULATORY EFFECTIVENESS
MANAGING RISK DEEP BENEATH THE OCEAN
ACCOUNTABILITY STARTS AT THE TOP
NOPSEMA ONLINE RESOURCES
MESSAGE FROM THE CHIEF EXECUTIVE OFFICER


In this edition, we highlight NOPSEMA’s role in managing late life assets and the importance of ensuring oil and gas companies are doing all they can to limit risks to safety and the environment throughout the lifecycle of their offshore facilities.

As this edition’s cover story explains, most of Australia’s offshore facilities are more than 20 years old, entering a phase where they require extra attention and close maintenance. Appropriate maintenance of ageing assets has emerged as a key regulatory issue for the offshore industry. As you will read inside, NOPSEMA has uncovered a number of cases where audit and maintenance requirements have not been undertaken in accordance with relevant standards or accepted permissioning documents.

The community expects greater transparency and explanation regarding compliance actions. As well as growing community interest in the offshore energy industry, NOPSEMA has noted a shift in community attitude towards regulation since the outcomes of recent Royal Commissions and other reviews with heightened expectations of scrutiny and the application of enforcement powers.

NOPSEMA is exploring options to adopt practices such as management inspections as part of its compliance and enforcement strategy. These practices, together with more traditional approaches to compliance, are to be the subject of multiple reviews and inquiries during the current financial year which kicked off with an independent audit by the Chief Scientist of NOPSEMA practices. That audit found NOPSEMA to be a “highly skilled, professional and competent regulator”.

"The community expects greater transparency and explanation regarding compliance actions"
Following an updated Statement of Expectations provided to NOPSEMA by the former Federal Minister for Resources and Northern Australia, Senator Matt Canavan, we prepared a new Statement of Intent which was published for consideration by the offshore energy industry and the public. NOPSEMA is also undertaking planning for its regulatory response to climate change impacts and risks, which includes supporting the establishment of an offshore renewables sector through appropriate regulation. In the months ahead, I look forward to updating the community further on developments and our actions to ensure a protected offshore workforce and environment.

Stuart Smith
Chief Executive Officer
EVERYTHING MUST GO

The Australian Government is committed to the protection and preservation of the environment. It is for this reason that approval to explore and develop Australia’s offshore petroleum resources is subject to stringent environmental protection legislation.

In late 2019, the former federal Minister for Resources and Northern Australia issued NOPSEMA with a Statement of Expectations in which he made clear his expectation that NOPSEMA would heighten its focus on the existing legislative requirement for offshore petroleum companies to maintain and remove all property and equipment.

When any piece of property or equipment used in offshore operations is no longer required, it must be removed. Until it is removed, it must be maintained in good condition and repair.

NOPSEMA has always required petroleum companies to demonstrate how they will maintain and remove all property and equipment, and where an alternative to complete removal is proposed, how equal or better safety and environmental outcomes will be achieved. In response to the enduring Statement of Expectations, NOPSEMA will now increase its efforts in challenging the robustness of these plans, with timeliness a particular focus.

Petroleum companies will be required to improve their description of all property and equipment and keep an inventory and schedule for its maintenance and removal. The inventory and schedule must be justified in the relevant permissioning documents and on an ongoing basis during NOPSEMA inspections.

“When any piece of property or equipment used in offshore operations is no longer required, it must be removed.”

NOPSEMA will regulate the requirement to maintain property and equipment in ‘good condition and repair’ in line with the principle that it be fit-for-purpose to perform its intended function at all times and remains capable of being removed. Regular inspection, maintenance, monitoring, and repair should be undertaken until its removal.
In situations where production operations have been temporarily suspended, all property and equipment must continue to be maintained in good condition and repair. NOPSEMA will not allow property and equipment to be left to rust and degrade to a point where it becomes a risk to the safety of the workforce when it is used again and/or its removal becomes impossible.

It is NOPSEMA’s expectation that petroleum companies will not delay removal of disused property and equipment until the end of field life. A plan must be in place to remove, in a timely manner, all property and equipment when it will no longer be used. If removal is to be delayed, or full removal is not practicable, then alternative arrangements must be demonstrated to, and approved by, NOPSEMA to deliver equal or better environmental outcomes, and can be done safely.

If a petroleum company does not comply with the legislative requirement to maintain and remove property and equipment then it is an offence of strict liability and NOPSEMA may seek to prosecute and have civil or criminal penalties applied. Where necessary, NOPSEMA will take enforcement action including directing the responsible, or formerly responsible, petroleum company to remove all property and equipment.

To assist petroleum companies in achieving compliance with this legislative requirement, NOPSEMA will be releasing a draft Duty to remove equipment and property from the title area policy. Interested stakeholders are strongly encouraged to review the policy and provide feedback to be considered in its finalisation and subsequent use.
INITIATIVES TO PROTECT & PRESERVE THE ENVIRONMENT

As Australia’s independent offshore energy regulator, NOPSEMA takes seriously its responsibility to protect the environment and improve the environmental management outcomes of the offshore activities we regulate.

CLIMATE CHANGE & RENEWABLE ENERGY

As a Commonwealth entity, NOPSEMA is also responsible for implementing Australian policy and this includes Australia’s commitment to combatting climate change and reducing greenhouse gas emissions by 2030.

In accordance with Commonwealth legislation and relevant policies, NOPSEMA’s regulation of offshore activities considers the impact of climate change and the plans in place to mitigate and manage greenhouse gas emissions.

NOPSEMA will also continue to support the development of a regulatory framework to enable offshore wind and other clean energy technologies in Commonwealth waters.

In January, the Australian Government Task Force, of which NOPSEMA is a participant, released for public comment a discussion paper outlining a proposed framework. In February, the taskforce held consultation sessions in Perth and Melbourne. The sessions were well attended by stakeholders representing prospective offshore clean energy developers, environmental consultancies, the offshore oil and gas industry, unions, government, legal practitioners and the community. The taskforce is considering the feedback received during the sessions with a view to a phased roll out of a regulatory framework into early 2021.

NEW GLOBAL BEST PRACTICE TOOL

In 2019, NOPSEMA led efforts as part of the International Offshore Petroleum Environment Regulators (IOPER) forum culminating in the release of a new planning tool for subsea well source control preparedness and response.

Current industry best-practice in planning for a subsea well source control response is detailed in Report 594: Source Control Emergency Response Planning Guide for Subsea Wells, developed by the International Association of Oil and Gas Producers (IOGP) Subsea Well Response Subcommittee.

NOPSEMA initiated the subsea wells source control planning tool in the form of a Response Time Model (RTM) which was adopted and completed by the IOGP. The RTM provides a basis for best practice planning in accordance with Report 594, under variety of well locations, designs, and characteristics.

The IOGP has subsequently produced Report 592 – Subsea Capping Response Time Model Toolkit User Guide to accompany the RTM toolkit and support industry to predict an estimated response timeline for capping a subsea well blowout.

Copies of the IOGP Reports and RTM toolkit are available from iogp.org/bookstore.
THE RELENTLESS NATURE OF CORROSION

The hostile environment typically faced by an offshore facility, and the very nature of its operations, lends itself to corrosion. It is a persistent threat to the integrity of an offshore facility and therefore the safety of the offshore workforce, and must be continually managed from the construction yard to decommissioning.

It is a common assumption that corrosion is only a concern for ageing facilities, but this is not the case. In fact, NOPSEMA has identified corrosion at a number of new facilities.

For example, a recent pipeline inspection found up to a 19 per cent loss in wall thickness within two pipelines in the first years of what will be decades of operation. The wall loss was thought to be the result of inadequate corrosion mitigation during a long preservation period (the time between construction and the introduction of hydrocarbons). Given its location, this corrosion cannot be reversed or remediated, so the only option is ongoing vigilance. While the pipelines remain fit-for-service at their maximum allowable operating pressure, they will require enhanced inspection and monitoring, at significant additional cost, to ensure they remain safe for their operational life.

Historically, corrosion has been the cause of a number of catastrophic pipeline failures. In Western Australia, in 2008, a 12 inch high pressure export sales gas pipeline ruptured on Varanus Island. The outflowing gas ignited resulting in an intense fire which destroyed a nearby pipeline directing further fires toward the onshore processing plant and causing two more pipelines to rupture and ignite resulting in A$60m of damage to the gas processing plant. Fortunately, no one was injured but the resultant restriction in gas supply lasted over a year and is estimated to have cost the Western Australian economy around A$3bn. The failed pipeline had been corroded to such an extent that it could no longer contain the pressure. The report into the incident found that the pipeline had ineffective anti-corrosion coating and cathodic protection, and that the petroleum company had inadequate inspection and monitoring programs. With ageing facilities, corrosion can be pervasive and when it takes hold the difficulty and cost to recover and demonstrate the ongoing integrity of the facility increases exponentially.

Recently, NOPSEMA prohibited hydrocarbon production at an ageing facility where the topside structures were degraded to such an extent there was an increased risk that structural elements could fall onto process pipework causing a major hydrocarbon loss of containment or crush any personnel working underneath. NOPSEMA inspectors documented many significant corrosion defects and found that the responsible petroleum company’s failure to identify and rectify these defects posed an immediate threat to the health and safety of the offshore workforce. There are no guarantees that hydrocarbon production at the facility will recommence.

Corrosion is one of the biggest threats to facilities within the Australian offshore petroleum industry. However, the implementation of an effective whole-lifecycle integrity management system can control this threat. NOPSEMA strongly encourages the industry to challenge the temptation to defer inspection, monitoring, maintenance and repair in favour of construction project deadlines, production and profit. Guidance for corrosion management in oil and gas production and processing is available from the Energy Institute at https://publishing.energyinst.org/.
In addition to thousands of kilometres of subsea pipeline and hundreds of wells, there are approximately 45 offshore oil and gas production facilities in Australian waters currently regulated by NOPSEMA. Of these, more than half are older than 20 years and some exceed 50 years, highlighting ageing as a growing challenge facing the industry.

While life expectancy for most offshore facilities spans several decades, preservation is determined by how well facilities are maintained and managed to withstand the elements. As steel is the main component of most facilities, exposure to salt and sea 365 days a year is a significant challenge.

Age related problems need to be correctly managed to avoid accelerated degradation. Additionally, considerations need to be made regarding the inspection, maintenance and repair requirements necessary to ensure asset integrity if field life exceeds original expectations.

In comparison to the North Sea in northern Europe, where hundreds of oil and gas platforms have progressed through various stages of the life cycle, including the decommissioning stage, few of Australia’s oil fields have been depleted to the point of decommissioning. Under Australian laws, when an offshore petroleum project comes to the end of its life, an oil and gas company must remove or satisfactorily deal with disused infrastructure. To date, most production facilities that have reached the decommissioning phase are floating facilities with subsea equipment and wells. Fixed production platforms present different challenges as they require specialised equipment to remove them from the offshore area. A number of facilities in late life have been divested from large oil and gas companies to smaller entities, presenting challenges with
regard to the technical and financial aspects of decommissioning. According to NOPSEMA’s Head of Safety and Integrity, Derrick O’Keeffe, the acquisition of late-life petroleum assets may present a range of issues and risks when there are pressures to reduce production costs as production declines at the end of field life.

“These pressures can have an impact on the maintenance of infrastructure and equipment, resulting in increasing threats to facility integrity and safety. In particular, NOPSEMA has identified cases where audit and maintenance regimes have not been undertaken in accordance with relevant standards or accepted permissioning documents,” Mr O’Keeffe said.

In the past two years NOPSEMA has taken enforcement action against two operators of Floating Production, Storage and Offtake facilities (FPSOs) which have failed to properly maintain ageing infrastructure. This action has included an order in September 2018 to shut down the first FPSO facility. The order resulted from a gas compressor exhaust that was exceeding maximum temperature conditions. This was followed by severe corrosion that led to further remedial works before production could restart. More recently, NOPSEMA issued an order in July 2019 for a second FPSO to halt production, after inspections found unacceptable levels of structural corrosion and equipment that had not been properly maintained.

NOPSEMA inspectors have extensive international and Australian industry experience and expertise in determining whether risks are being maintained appropriately by the facility operator. The scope of their inspections extends from appropriate risk assessments and application of relevant standards to deployment of appropriate maintenance strategies and competency of staff and commercial independent certifiers.

As offshore facilities age in Australia, greater consideration is being given to end-of-lifecycle management and decommissioning obligations.

“To ensure safety standards are maintained as facilities approach late-life, NOPSEMA recognises the importance of regulatory engagement and holding titleholders to account for planning and undertaking decommissioning practices. Where necessary, NOPSEMA will take action to ensure appropriate decommissioning outcomes are achieved,” Mr O’Keeffe said.
WORKING WITH YOUR OFFSHORE TEAMS

A well activity being undertaken at an offshore drilling facility is a complex and hazardous undertaking providing a direct pathway into an oil and gas reservoir which can introduce the risk of a potential loss of containment of hydrocarbons and the associated risk of a fire and/or explosion at the facility.

While it is the titleholder’s responsibility to ensure a well activity is conducted safely and without risk, it is the drilling facility operator’s responsibility to ensure all aspects of safety on-board their facility, including well control. Third party contractors involved in a well activity are responsible for the integrity of the plant and equipment they supply and the safety of their employees undertaking a well activity.

All parties have individual responsibilities under the legislation and collectively, they share the responsibility for OHS during well activities.

NOPSEMA has identified examples where operators of drilling facilities and third party well intervention contractors have undertaken well activities unaware of the risks identified in the titleholder’s well operations management plan (WOMP); the permissioning document for the well activity.

In one instance, the operator of a drill rig and third party contractor were undertaking an activity to plug and abandon a well when they unexpectedly encountered hydrocarbons. The risk of hydrocarbons being present in the well was identified in the titleholder’s WOMP; however, neither the drill rig operator or third party contractor were aware of that risk.

To manage the risk, the third party contractor supplied pressure-containing equipment not recognising that it was neither maintained nor certified. Before the equipment was deployed offshore, the titleholder completed a quality assurance check of the equipment and identified that it was neither maintained nor appropriately certified and yet, knowing this, approved the equipment’s use. When the equipment arrived at the drill rig, the operator did not verify its certification or maintenance.

In using equipment that was not certified as having been appropriately inspected, tested and maintained, all responsible parties risked a potential loss of containment of the hydrocarbons which could have sparked an associated fire and/or explosion and injured or even killed the personnel on-board.

NOPSEMA issued a general direction to the titleholder and improvement notices to the drill rig operator and third-party contractor to ensure they review their processes and procedures relating to the inspection, maintenance and certification of third-party equipment.

The titleholder also reviewed their critical interface management arrangements and committed to improving their performance. NOPSEMA strongly encourages all titleholders to do the same, and in particular, ensure management of change (MOC) processes for the interface between themselves and their offshore teams (including appropriate escalation) are described in the WOMP.

Although this incident pertains to a well activity, the lessons learned can, and should, be applied to the industry more broadly where interfaces exist between different teams.
ENSURING REGULATORY EFFECTIVENESS

As an independent statutory authority, there is a perception held by some in the community that NOPSEMA is either unaccountable or free to make any decision it chooses. While NOPSEMA’s regulatory functions are free of undue influence – including political, economic and special interest – we are subject to a heavy regime of scrutiny and independent review.

In the last two years, NOPSEMA was the subject of, or participated in, eight separate reviews and appeared before multiple hearings of Senate Estimates, the parliamentary process to examine and scrutinise the operations of government. NOPSEMA is subject to this level of review to ensure its assessments and decisions comply with the legislation and regulations we are legally obliged to administer. Each review of NOPSEMA has found that we administer the offshore petroleum regulatory regime in an effective and efficient manner.

This year we expect to appear at hearings for Senate Estimates, and participate in at least one Senate Inquiry and multiple external reviews, including NOPSEMA’s own five yearly operational review. This independent operational review is a statutory obligation and will cover the period 2015-2020, examining NOPSEMA’s effectiveness at bringing about improvements in occupational health and safety, environmental management and well integrity.

The operational review, along with the Environment Protection and Biodiversity Conservation (EPBC) Program Streamlining Review (also scheduled for 2020), provide important opportunities for government, industry, other interested parties to provide input on the regulatory regime and NOPSEMA’s administration of it. NOPSEMA has consistently welcomed external reviews and will always seek opportunities for continuous improvement to offshore worker safety and environmental management. More information on the reviews will be provided throughout the year.

Examples of major reviews and inquiries involving NOPSEMA:

<table>
<thead>
<tr>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senate inquiry into the work</td>
<td>Chief Scientist’s audit of NOPSEMA’s</td>
<td>Statutory Operational Review of NOPSEMA</td>
</tr>
<tr>
<td>health and safety of workers</td>
<td>consideration of exploration in the</td>
<td></td>
</tr>
<tr>
<td>in the offshore petroleum</td>
<td>Great Australian Bight</td>
<td></td>
</tr>
<tr>
<td>industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senate inquiry into the</td>
<td>Senate inquiry into amendments to the</td>
<td>Independent review of the</td>
</tr>
<tr>
<td>framework surrounding the</td>
<td>Offshore Petroleum and Greenhouse</td>
<td>Environment Protection and</td>
</tr>
<tr>
<td>prevention, investigation and</td>
<td>Petroleum and Greenhouse Gas Storage Act 2006</td>
<td>Biodiversity Conservation Act</td>
</tr>
<tr>
<td>prosecution of industrial</td>
<td></td>
<td>1999</td>
</tr>
<tr>
<td>deaths in Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parliamentary inquiry into</td>
<td>Productivity Commission Review of Resource</td>
<td>EPBC Program Streamlining Review</td>
</tr>
<tr>
<td>impediments to business</td>
<td>Sector Regulation</td>
<td></td>
</tr>
<tr>
<td>investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonwealth Offshore</td>
<td>Commonwealth Offshore Oil and Gas Safety</td>
<td>Senate inquiry into the impact of</td>
</tr>
<tr>
<td>Petroleum Consultation and</td>
<td></td>
<td>seismic testing on fisheries and the</td>
</tr>
<tr>
<td>Transparency Review</td>
<td></td>
<td>marine environment</td>
</tr>
</tbody>
</table>

THE REGULATOR 13
MANAGING RISK DEEP BENEATH THE OCEAN

The safety of all offshore oil and gas operations relies on a central component: the continued integrity of boreholes drilled thousands of metres below the ocean floor. In the industry this is termed “well integrity” – with the aim of always maintaining control of wells and the fluids they contain.

According to NOPSEMA’s Well Integrity Manager, Mark Bourne, well integrity is the most important consideration in ensuring the health and safety of offshore workers and the responsible management of the environment.

“Our Well Integrity Team is fundamental to NOPSEMA’s core business. Our focus is on preventing an incident or emergency event through proactive risk management,” Mr Bourne said.

NOPSEMA’s Well Integrity Team comprises six internationally experienced experts trained in engineering, operations and geology. Their role is to assess and monitor the risk management plans of oil and gas companies to ensure that the drilling and maintenance of offshore wells is conducted with risks As Low As Reasonably Practicable – or risk “ALARP”. Risk ALARP means that there are no other practicable measures that can be used to further reduce the risks.

There are approximately 900 regulated wells in Commonwealth waters. Around two thirds are operational with the remainder shut-in or awaiting permanent abandonment.

“Production projects can run over 30-something years, and well integrity doesn’t stop when the well is plugged and abandoned. Industry needs to ensure that the well is designed to maintain well integrity forever.”

A Well Operations Management Plan, or WOMP, is the corner-stone of the management of well integrity over the complete life-cycle. An oil company (i.e. a “titleholder”) proposing to undertake offshore drilling activities in Commonwealth waters must submit a WOMP to NOPSEMA for assessment and acceptance. The WOMP describes the characteristics of the well and the well activities to be undertaken, and must clearly demonstrate how the titleholder will reduce risks to ALARP.

“We’re talking about an 8 inch diameter borehole that reaches perhaps 4 km below the seabed: not something that can actually be seen. So it’s all about ensuring that the WOMP addresses all the potential well risks through effective management practices. Then, during operations, when we receive a notification of a well integrity incident, we need to look at that aspect of the WOMP to see what’s gone wrong, and that the corrective actions are adequately covered in the WOMP.”

The Well Integrity Team reviews each WOMP for consistencies, anomalies and omissions throughout the well life cycle.

“A WOMP assessment usually takes a full month because we have to understand everything about the planned operations, the physical well and its intended use. It could be that the well is producing on a platform with 20 or 30 other wells that may be 25 years old and built to different standards, so there’s a lot to consider.”

In addition to checking WOMPs against the requirements of relevant Commonwealth regulations, well integrity specialists conduct regular on-site inspections and undertake interviews with titleholders as part of an ongoing assessment process.

“Normal inspection procedure is to interview personnel, check documentation and observe operational procedures to make sure titleholders are acting in accordance with procedures and standards described in their accepted WOMP.”
“Drilling rig operations are monitored by the titleholder in real time, 24/7. We review the daily drilling reports to get an understanding of the current well operations and how the risks are being managed.”

“It’s all about uncertainties – what the titleholder does to manage the unexpected. Uncertainties could include finding that the subsurface pressures are higher or lower than expected, or that the geological formations are not as predicted. These uncertainties are managed by risk assessments and a management of change process within a defined operating envelope - an area we focus heavily on.”

More than half of Australia’s offshore wells are more than 20 years old. NOPSEMA recognises the prevalence of aging assets and the importance of appropriate maintenance as key regulatory issues for the offshore oil and gas industry.

As part of its regulatory role, NOPSEMA may take enforcement action against a titleholder when risks are not being effectively managed. Although this may address the particular issue identified, the prevention of future events across industry is the goal.

In some cases a failure to maintain safe systems and facilities has resulted in significant financial loss through production shut-downs and repair costs. In a recent example, a titleholder implemented an extended shutdown of a facility in order to address integrity deficiencies and comply with NOPSEMA’s enforcement actions.

NOPSEMA regularly hosts forums and workshops for stakeholders to discuss opportunities for improvement such as well barriers, operational risk assessments, source control and the health and safety of offshore workers. Details of these events are readily available via the NOPSEMA website: www.nopsema.gov.au

“Drilling rig operations are monitored by the titleholder in real time, 24/7
ACCOUNTABILITY STARTS AT THE TOP

NOPSEMA will be looking into the performance of senior executives and boards to determine the extent of their oversight of, and accountability for, the control of major accident hazards on offshore facilities and activities.

This approach has been applied in the financial services sector with the Australian Prudential Regulation Authority recently identifying issues, for example, of executives having insufficient oversight of non-financial risk across the business, or with existing remuneration practices “not incentivising the right behaviours” in financial companies.

Emerging research findings in major hazard industries like offshore petroleum reinforce the substantial influence incentivised target-setting and organisational reporting lines have on the proper identification, reporting and oversight of significant safety and environmental risks.

Through its regulatory activities, NOPSEMA has identified compliance issues within the industry at an operational level that may have roots at the executive level. For example, decisions made to prioritise projects that will increase production over routine or campaign maintenance activities leading to unacceptable levels of corrosion and degradation.

A number of capital works projects have required significant field-based remedial work prior to being ready for start-up, and yet their capital project delivery milestones are claimed to have been met. Wells have been ‘temporarily’ abandoned and production suspended indefinitely with no plan in place for permanent plugging and abandonment.
Management of change processes have been routinely misused to manage risks to the company rather than risks to the workforce and environment. Some petroleum companies have repeatedly failed to address NOPSEMA’s inspection recommendations until they have been faced with the prospect of escalated enforcement action. All of these examples are potential symptoms of organisational structures and incentive systems that prioritise the mitigation of financial risk over safety and environmental risk.

In late 2018, NOPSEMA conducted a pilot executive oversight inspection in response to systemic non-compliance on an offshore facility. The inspection identified, at the executive level, potential root causes for the non-compliance which prompted significant changes in the petroleum company’s organisational structure, lines of reporting, and a clarification of senior executive accountability.

In line with legislative requirements, it is NOPSEMA’s expectation that senior executives and, where relevant, their boards have oversight of the major non-financial risks to their offshore facilities and activities, are capable of understanding the risks, are accountable for ensuring critical controls are in place and are effectively managing the risks and, most importantly, are willing (and incentivised) to balance the irreconcilable goals of annual financial performance and long-term low-likelihood, but high consequence, risk control.

From 2020, NOPSEMA will gradually implement an industry-wide program where we will collect and review information relating to the degree to which senior executives and boards have sufficient oversight of, and accountability for, the control of major accident hazards. The program is currently being developed in collaboration with Emeritus Professor Andrew Hopkins to ensure appropriate consideration of leading research and practice in organisational design contributions to major accident hazard management.
NOPSEMA continuously collects and publishes data on the safety, well integrity and environmental management performance of the industry, as well as its own regulatory performance and activity. Members of the public can view annual and quarterly data on industry performance indicators, such as incident rates, hydrocarbon releases and international benchmarks. There is also the option to view and compare data from previous years.
To notify NOPSEMA of an accident, dangerous occurrence, environmental or well integrity incident call: 1300 674 472