

THE REGULATOR

2022 - Issue 3



The sounds of the sea

Addressing the challenge of underwater noise



NOPSEMA
Australia's offshore energy regulator

About NOPSEMA

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

By law, offshore petroleum and greenhouse storage activities cannot begin before NOPSEMA has assessed and accepted the required permissioning documents demonstrating how the activity will be undertaken to reduce risks to the health and safety of the workforce and the environment to as low as reasonably practicable (ALARP) and environmental impacts to an acceptable level.

In November 2021, NOPSEMA was given the role and functions of the Offshore Infrastructure Regulator following the passing of the *Offshore Electricity Infrastructure Act 2021* in federal parliament.

For more information, visit our website at nopsema.gov.au.

SUBSCRIPTIONS

To receive the latest news from NOPSEMA visit nopsema.gov.au/news-and-resources



SUBSCRIBE

FEEDBACK

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

CONTACT DETAILS

Head office — Level 8, 58 Mounts Bay Road, Western Australia

GPO Box 2568, Perth WA 6001

P: +61 (0) 8 6188 8700

Published in August 2022

Strategic
compliance
focus areas for
2022

PREVENTING MAJOR
ACCIDENT EVENTS

PREVENTING LOSS OF WELL
CONTROL

EFFECTIVE OIL POLLUTION
EMERGENCY PREPAREDNESS

RESPONSIBLE ASSET
STEWARDSHIP

Contents

04

Message from the Chief Executive

06

All wells that end well

07

Spotlight on offshore mental health

10

Keep it down:
Addressing the challenge of marine noise pollution

13

What's happening offshore?

14

Offshore industry activity Q2 2022

16

It's blowing in the wind

18

Taking ownership for safe decommissioning

19

Just in case: the importance of risk assessment

Bulletins:

20

New industry information on emissions reduction

21

What you need to know about cyber security

22

Updated guidance on safety case content and level of detail

Message from the Chief Executive Stuart Smith



There have been some big changes for NOPSEMA since the last edition of *The Regulator*, among them being the establishment of our agency as the new Offshore Infrastructure Regulator (OIR), with responsibility for regulating Australia's emerging offshore renewable energy industry.

We also have new federal ministers to welcome following the appointment of Madeleine King as Minister for Resources, Chris Bowen as Minister for Climate Change and Energy, and Tanya Plibersek as Minister for Environment and Water.

I look forward to working with these new ministers over the coming months, although my time as CEO will be drawing to a close later this year.

Prior to the federal election, I announced my intention to finish as CEO during 2022 after more than eight years in the role.

Reflecting on that time, I am pleased to note that our fundamental goals and functions have remained the same: to protect both the wellbeing of the offshore workforce and the environment.

A key measure of success is the absence of any major accident events.

Preventing major accidents should always remain an overriding focus, but it is not enough to maintain community and stakeholder support.

Continuous improvement is expected of the regulator, in the same way that we expect continuous improvement from the industry.

It has been great to see NOPSEMA achieve a wide range of improvements during my tenure.

Some of the improvements relate to our own governance practices like the strengthening of regulatory decision making through the creation of our compliance committee.

Other improvements relate to our regulatory processes such as greater transparency in environment approvals, which has enabled better sharing of information across industry, helped raise standards and enabled more stakeholder input into the process.

We have also seen improvements with issues such as the mitigation of oil spill risk by industry, executive oversight and accountability, process safety, and well control.

Some changes have emerged in response to matters such as the liquidation of Northern Oil and Gas (NOGA), which left responsibility for the decommissioning of the Northern Endeavour facility with the government.

This led to NOPSEMA being given additional powers, as well as heightened expectations on both ourselves and industry.

Other measures were also introduced by government to support decommissioning, including the introduction of a levy to recover decommissioning costs for the Northern Endeavour and trailing liability provisions for titleholders.

Further measures are expected in the form of expanded financial assurance powers for NOPSEMA as an additional safeguard related to decommissioning.

Changes in regulatory powers and expectations have not been confined to decommissioning. The COVID-19 pandemic, mental health, and indirect consequences of offshore petroleum activities have all demanded regulatory intervention.

We were able to draw upon our industry-wide perspective and international network to identify leading practices when COVID-19 emerged in the community, and we shared this insight with operators to support outcomes for workers.

Mental health issues also became more prevalent as COVID-19 restrictions persisted. NOPSEMA was able to work with industry and workforce representatives to draw attention to the risks and potential mitigation measures.

Collaborative forums such as the Health and Safety Representative (HSR) forums organised jointly by NOPSEMA, industry, and the Australian Council of Trade Unions (ACTU) proved popular in spreading insights between operators and workers.

NOPSEMA has also recognised increasing interest among the community and stakeholder groups regarding the indirect consequences associated with offshore petroleum activity.

During environmental approvals, stakeholders are increasingly raising the issues of industry actions to mitigate emissions and titleholders' efforts to address cultural heritage.

This increasing interest reflects broader shifts in community sentiment and we expect this to continue.

NOPSEMA has already been given expanded responsibilities in related fields such as carbon capture and storage (CCS) and the regulation of offshore renewables.

These new responsibilities, combined with NOPSEMA's expanded role in more traditional responsibilities like decommissioning and financial assurance for offshore petroleum assets, pose both challenges and opportunities for the regulator.

Our board has played an important role in the emergence and operations of NOPSEMA as an effective, professional regulator. I have greatly appreciated their advice over the past eight years and their insights have strengthened regulatory outcomes.

The role of the board will be even more important into the future as NOPSEMA's responsibilities expand and the need for vigilance over traditional responsibilities such as preventing major accident events remains paramount.

In closing, I would like to recognise the professionalism and expertise of the NOPSEMA staff.

When I started as CEO, I was fortunate to find an organisation that already had sound processes and outstanding staff.

I have sought to build on these strengths and add new dimensions to NOPSEMA so it is positioned to meet the continuous emerging challenges.

Throughout my tenure as CEO, NOPSEMA has been subject to a multitude of independent reviews and inquiries which have invariably found the agency to be a highly regarded, expertise-based regulator.

These independent reviews confirm my own view of NOPSEMA staff and processes, leaving me confident that the next CEO will be joining an agency that is well placed to meet the challenges of the future.

Stuart Smith
Chief Executive Officer

All wells that end well

Over the next decade Australia's offshore oil and gas industry is facing a significant wave of decommissioning activity.

In Commonwealth waters there are approximately 900 wells, with 400 wells no longer in use. NOPSEMA requires titleholders to decommission 220 of these unused wells (plug and abandon) by the end of 2027.

This follows the objectives outlined in our Decommissioning Compliance Strategy, including the target that by 2025 every new well is to be plugged and abandoned within three years of becoming non-operational.

The issue of proactive plug and abandon planning was the subject of a paper recently published in the APPEA Journal and presented at the May 2022 APPEA Conference and Exhibition by NOPSEMA's Head of Safety and Integrity Division Derrick O'Keeffe, and also by NOPSEMA Well Integrity Engineer Pauline Goh at the June 2022 DrillWell industry forum in Perth.

"These wells can be grouped into three categories: the backlog of unused wells, the currently operating wells, and future wells to be drilled. Or put more simply, the older ones, the ones still being used and the new ones yet to come," Derrick said.

"For all these wells, planning for well abandonment in each stage of the well lifecycle is required to decommission wells in a safe and timely manner."

According to industry research, around 40 per cent of the total estimated decommissioning cost stems from well abandonment – highlighting the substantial challenge for the industry.

Derrick and Pauline's presentations and their paper entitled "Cradle to Grave: Planning for All Well Decommissioning" urged the incorporation of "abandonment thinking" into each phase of the well lifecycle highlighted as an expectation for all wells going forward.

Pauline highlighted that none of this is new information

"The paper and presentations were a way to put a new spin on these ideas while still pointing industry to best practice guides," Pauline said.

"Using existing industry well lifecycle standards, incorporating previous learnings, and industry collaboration are key all to addressing the decommissioning challenge.

"Both industry and NOPSEMA have a common goal of achieving successful well decommissioning.

"We want to continue our engagement with industry around this topic and are constantly looking at ways to provide industry with improved direction and clarity," she added.

The "Cradle to Grave: Planning for All Well Decommissioning" presentation is available on the NOPSEMA website.



Well Integrity Engineer Pauline Goh

Head of Safety and Integrity Division Derrick O'Keeffe



Spotlight on offshore mental health

The offshore industry is expected to put the safety of its workers at the forefront of all considerations, protecting not only the workforce itself but the reputation of the companies involved.

And as the issue of mental health becomes increasingly important in all areas of life, the mental and psychological wellbeing of workers in the offshore sector is now recognised to be just as important as their physical health.

Head of Safety and Integrity Division Derrick O'Keeffe said the safety of workers in the offshore sector is at the core of what NOPSEMA does.

"It's not only in our name, it's enshrined in the legislation under which we operate and a part of our very DNA. In addition to physical safety, this is increasingly referring to psychological wellbeing," Derrick said.

"We have noticed an uptick in injuries between 2020 and 2021 and are proactively engaging with industry bodies and their leaders, as well as working with psychologists to help identify and act upon possible causes."

One of the causes of injuries at work is occupational stress, defined as the physiological and psychological response experienced by a worker when they perceive their work demands exceed their resources and/or abilities to cope.

It is psychosocial hazards – the factors in the design or management of work that increase the risk of work-related stress – that can lead to psychological or physical harm.

PeopleSense psychologists and organisational consultants Kristiina Bedford and Shannon Kelly both said it is a complex issue.

"These hazards can include role overload, emotional demands, low job control, poorly defined roles, low recognition and reward, poorly managed change, interpersonal conflict, organisational injustice, low co-worker or supervisor support and environmental conditions," Shannon said.

"Exposure to these hazards can lead to workers feeling stressed and when prolonged, can lead to reduced mental health and poor health behaviours, psychological injury and physical injury or illness."

As in so many areas of life all around the world, the COVID-19 pandemic added complexities to this mix.

Kristiina said at the individual level, when there are increased demands and change, people may feel greater stress and may not respond effectively.

"The effect of the pandemic in the industry – longer rosters, organisational changes, staff and labour shortages, job insecurity, tightening labour conditions – may have impacted workers."

"When those changes are poorly communicated this can further impact worker wellbeing and becomes an additional stressor on the individual and may be driving factors to the increase in injuries," Kristiina said.

The COVID-19 pandemic may have also reduced the available resources for workers by impacting support levels and the autonomy within the role.

“Humans need connection and the social isolation experienced by some due to the mandatory shutdowns, border closures, long periods away from home and difficulties travelling home and arranging travel, can have an effect,” Shannon said.

This phenomenon was recently identified in industry sector research.

“Last year NOPSEMA, the unions, and APPEA commissioned some sector-wide research on offshore workers during the COVID-19 pandemic,” Derrick said.

“This sense of loneliness with fewer opportunities to socialise was identified in the research and can have a flow on negative effect through the impact it has on families and other relationships.”

When the demands of a job increase while resources remain static, workers can experience lower levels of wellbeing and higher levels of psychological distress and uncertainty which may influence work engagement.

The 2021 research found “the majority of offshore workers are experiencing either a ‘moderate’ or ‘high’ level of general psychological distress” during the COVID-19 pandemic.

This is higher than individuals in the general population, and for many it is at a level indicating mental health interventions are required.

“When distress is not addressed and continues over the long-term, burnout can occur, which obviously can increase the possibility of accidents, injury and safety non-compliance,” Kristiina said.

The effect of the interplay between job demands and resources on workers is well-documented and was noted in the study with some offshore workers reporting a lack of support from their employer during the pandemic and that greater autonomy over work tasks could have supported their wellbeing.

When a worker sees an increased in job demands at the same time as low control or decision latitude, they can experience job strain,” Shannon said.

“Conversely, greater job resources can lead to increased motivation.”

For more information see NOPSEMA’s Psychosocial Risk Guidance Note and also NOPSEMA-commissioned research, ‘Offshore Personnel Mental Health and Wellbeing during Covid-19 (2021).’

How can workers manage their stress:

- focus on what can be controlled and influenced instead of focusing time and energy on what cannot be controlled
- create and build support systems of co-workers, family, and friends
- maintain health through movement, nutrition, and sleep
- seek out professional assistance.

Case Study: Turning to aviation

In 2006, the European air traffic network manager EUROCONTROL identified a poor safety culture as a factor in serious aviation accidents and launched a program for its measurement, evaluation and improvement.

They steered away from traditional assessments and instead implemented a proactive approach to improve safety outcomes through a work-practice-focused project.

Between 2006 and 2008, a toolkit was created for identifying and measuring the components of a safe culture and a six-dimension conceptual model of safety culture was developed.

Since then, this approach has been adapted to the wider airline industry and to more than 30 national air navigation service providers, leading to changes in schedules and rosters, new training, and creating a peer support program.





Keep it down: Addressing the challenge of marine noise pollution

Our oceans have long been considered a place devoid of any sound. It was the Persian poet Rumi who wrote “Silence is an ocean” and even the name Pacific means calm and tranquil.

While life below the waves may appear to be quiet and serene, sound is just as crucial below the waves as it is above them.

Increasingly today, the underwater soundscape is being impacted by industrial activity, prompting an increase in scientific research on the impacts of noise on marine life, particularly in relation to the offshore petroleum industry and offshore wind farms.

NOPSEMA’s Acting Manager of Offshore Projects and Seismic Team Raquel Carter recently spoke in Berlin at the International Conference on the Effects of Noise on Aquatic Life and noted that noise in the seascape is increasing and placing more pressure on marine life.

“In the Australian marine environment human induced noise comes from multiple sources, including oil and gas activities, shipping and future construction of new offshore wind farms.

“And this means that NOPSEMA must continue to make decisions on activities that generate underwater noise to ensure the impacts on marine animals will be of an acceptable level,” Raquel said.

The impact of underwater noise on marine animals such as endangered whales is not fully understood, particularly in relation to the effects on feeding, breeding and communication and what this means for species recovery and conservation.

And so both monitoring and adaptive management is critical to ensure industry addresses the inherent scientific uncertainty in the effects of underwater noise on marine life in such a way that necessary precautions and controls can be implemented when necessary.

Raquel’s presentation – “Adaptive management is critical for effective underwater noise management of offshore activities” – advocated an approach to management that allows for new science and other relevant information to be taken into account in the post approvals stage so that adaptive management is hard-baked into project planning and execution phases.

“In the face of scientific uncertainty, it’s important that proponents can adapt their management measures to respond to new scientific information and in situations where there is an observed higher than anticipated density of sound sensitive animals, (such as whales), in the underwater noise footprint.

“It’s up to everyone who’s responsible for generating human-made underwater noise to implement management measures so that residual impacts do not impede the protection or recovery of threatened species listed under Environment Protection and Biodiversity Conservation Act,” Raquel said.

NOPSEMA takes a holistic approach in the assessment and the compliance of offshore projects.

The agency assesses the noise management case made in an environment plan and can hold companies to account by undertaking compliance monitoring and enforcement where warranted to ensure that adaptive management of underwater noise plays an effective part in the offshore energy regulatory regime.

Monitoring and adaptive management offers opportunities to undertake noise generating activities in the marine environment with a high degree of confidence that changes in the presence of sensitive fauna will be detected so more protective measures can be triggered and implemented.

“While overseas at the conference I received positive feedback on this element of NOPSEMA’s regulatory regime – the fact that NOPSEMA doesn’t operate under a ‘set and forget approach’ and instead goes with an environmental outcomes focus. The ability for proponents to take into account new science, technology and best practice as they arise, so that improvements can be made over time beyond the initial approval, strengthens the environmental protections afforded to marine life while allowing sustainable development to proceed,” Raquel said.

“And with NOPSEMA’s remit expanding with the establishment of the Offshore Infrastructure Regulator (OIR), which will regulate the construction and operation of offshore wind developments to come, we have the opportunity to bring this environmental outcomes focused approach in to the effective regulation of offshore renewable energy activities.”



Acting Manager of Offshore Projects and Seismic Team Raquel Carter

The issue of underwater noise impacts of offshore wind farm construction was a major focus at both the conference and also when Raquel spent a day in Hamburg with representatives from the German government's Federal Maritime and Hydrographic Agency, which has regulated the German offshore wind industry for two decades.

"I was able to network with some of the regulators who have a lot of experience in effective mitigation and monitoring frameworks for managing impacts of bird strike risk and underwater noise associated with windfarm construction," Raquel said.

"They put a lot of effort into sharing their knowledge with us around the regulation of offshore wind in the Baltic Sea and the processes, considerations, licence conditions and guidelines they use.

"It's great intel for Australia because we can learn from our international colleagues on the types of controls and mitigations that have worked in Europe, what aspects of offshore wind development have been challenging, and some approaches for environmental monitoring and impact verification."

This information can be shared and input into impact assessment guidance and processes we are working closely with DCCEEW in delivering for project assessments of windfarms under the EPBC Act.

"In some cases, Australia's emerging industry can potentially borrow what has worked in other parts of the world while also designing new technologies applicable to the environmental management of local offshore windfarms," Raquel said.

While Europe's mitigation and management may focus on smaller marine mammals such as the harbour porpoise, Australia will have to consider the effects of underwater noise on larger mammals such as blue whales and southern right whales, both of endangered species.

"There's a real opportunity for the oil and gas and offshore wind industries to work collaboratively in improving our understanding and management of the impacts of underwater noise on marine life," Raquel said.

"Both industries will have the same problem, it's just a different source of noise."

You can find Raquel's presentation "Adaptive management if critical for underwater noise management of offshore activities" on the NOPSEMA website.



What's happening offshore?

During Q2 2022, there were 41 fixed facilities, seven mobile offshore drilling units (MODUs), six vessels, 92 pipelines, eight sets of subsea infrastructure and two seismic activities within NOPSEMA's jurisdiction.

The number of offshore hours worked was 2,719,193, a slight increase compared to the same period last year.

However, there was a significant drop in mobile hours worked due to fewer active MODUs and vessels in Commonwealth waters.

Of the total number of facilities under NOPSEMA's regulatory oversight, ten fixed facilities, eight sets of subsea infrastructure, and 17 pipelines have ceased operations permanently and require timely decommissioning.

During Q2 2022, NOPSEMA undertook 31 inspections, the highest for a single quarter in more than a year.

We also commenced 47 assessments of key permissioning documents, comprising 14 new submissions and 33 revisions.

There were 15 injuries this quarter, the lowest number in more than a year.

The majority of the recorded injuries were medical treatment injuries, with one of these being of a serious nature.

This followed an initial notification of a medical injury being later classified as serious injury following confirmation of a broken foot.

There were six complaints this quarter, all relating to the Shell Prelude facility.

NOPSEMA issued four enforcement actions, which included two notices prohibiting facility operators from conducting specific scopes of work until NOPSEMA was satisfied that the risks to the health and safety of the workforce had been reduced to ALARP.

Two environment plans for exploration drilling have been published the NOPSEMA Consultation Hub for public comment, both of which have closed.

Regulatory guidance on 'Human Factors: Risk Migration' was also published for public comment.

Offshore activity Q2 2022

2,719,193

TOTAL HOURS WORKED OFFSHORE



1037

OFFSHORE ASSETS



0

FATALITIES

1

SERIOUS INJURIES



6

COMPLAINTS

Regarding duty holder performance



15

INJURIES

includes:
Alternative duties injuries: 2
Medical treatment injuries: 11
Lost time injuries: 1



109

ASSESSMENTS

Includes:
47 key permissioning documents
62 other assessments



31

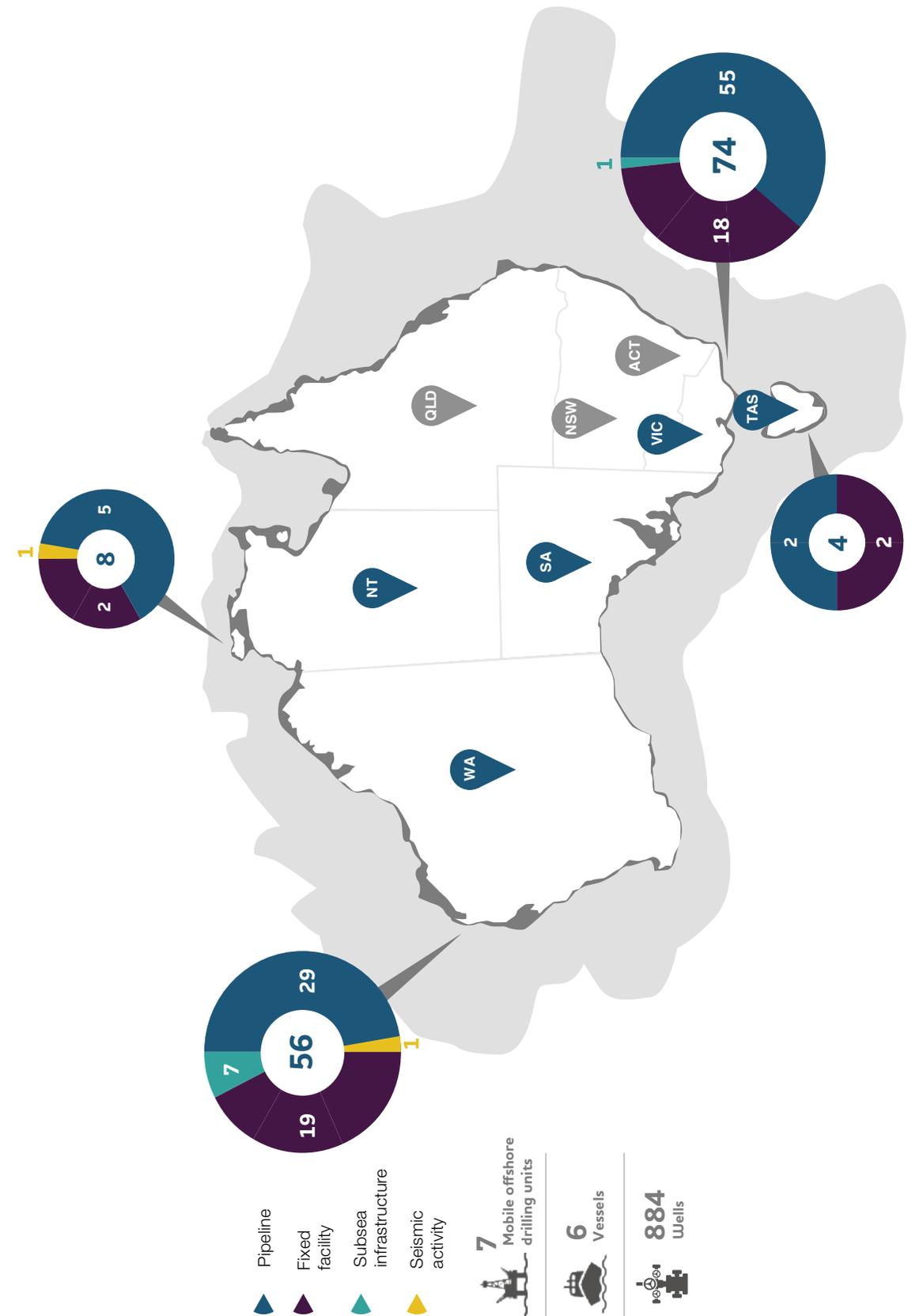
INSPECTIONS



4

ENFORCEMENT ACTIONS





It's blowing in the wind

Moves are underway to enable the development of a new Australian offshore renewable energy industry with the announcement of six proposed regions offering world-class offshore wind energy potential.

Busy times lie ahead for the NOPSEMA's new Offshore Infrastructure Regulator (OIR) function.

Australia's energy needs are increasing, and when coupled with targets for reducing greenhouse gas emissions, the importance of renewable energy is clear.

To meet our emissions reduction goals for the electricity network alone, the Australian Energy Market Operator predicts renewable energy generation will need to increase nine-fold by 2050.

The project lead for NOPSEMA's new Offshore Infrastructure Regulator (OIR) Owen Wilson said new technology will be the key.

"Electricity usage from the grid is expected to nearly double in this same period and renewable technologies will need to be deployed at scale to meet this demand."

A recent surge in public announcements for proposed offshore renewable energy projects has now been followed with the Australian Government's announcement of six proposed regions with high offshore renewable energy development potential – Gippsland, Hunter, Illawarra, Portland, Northern Tasmania and Perth/Bunbury.

Making the announcement, Climate Change and Energy Minister Chris Bowen said: "Unlocking the offshore wind industry is an exciting new chapter for Australia and we want to build a platform of community collaboration and support around it.

"We have some of the best wind resources in the world – just one rotation of one offshore wind turbine provides as much energy as an average rooftop solar installation generates in one day.

"Many other countries have been successfully harvesting offshore wind energy for years, and now is the time for Australia to start the journey to firmly establish this reliable and significant form of renewable energy."

Having come into effect in June this year, the expansion of NOPSEMA's oversight to include the offshore renewables industry is timely, given the expected rapid expansion in the sector.

"Since its formation, NOPSEMA's been constantly evolving and diversifying its areas of oversight and regulation," Owen said.

"First came the inclusion of offshore safety, followed by well integrity in 2011, environmental management in 2012, greenhouse gas storage responsibilities in 2020, and now the offshore renewables industry.

"This new role is a natural evolution for NOPSEMA, which follows approaches taken internationally with offshore oil and gas regulators' oversights also extended to include offshore renewables."

Under the Offshore Electricity Infrastructure Act 2021 (OEI Act), NOPSEMA will oversee work health and safety, infrastructure integrity, environmental management, and financial security for all offshore infrastructure activities.

"NOPSEMA is well regarded as a diverse and agile regulator, highly experienced in regulating offshore infrastructure activities in Australia's unique marine environment," Owen said.

"We'll be able to leverage and build on our existing specialist skills and expertise in regulating large-scale offshore energy projects.

"The OIR is very well placed to maintain oversight of the offshore renewables sector."

A consultation period for Gippsland, the first area declared for offshore renewables in Australia is now underway. For more information visit <https://consult.industry.gov.au/oei-gippsland>



Offshore Renewables Project Lead Owen Wilson



Taking ownership for safe decommissioning

A note from NOPSEMA's Head of Environment, Renewables and Decommissioning Division Cameron Grebe.

Decommissioning continues to be a hot topic with the offshore industry collaborating on many fronts to discuss challenges and opportunities associated with upcoming work.

With that increasing focus comes a reminder from NOPSEMA to ensure the validity and accuracy of safety case submissions.

When utilising contractors to decommission offshore infrastructure, titleholders must ensure that adequate provisions, including assurance and oversight, are in place to meet the requirements under the Offshore Petroleum and Greenhouse Gas Storage Act and the associated regulations.

NOPSEMA has recently seen several examples of safety case submissions where titleholders have pushed the decommissioning risk and regulatory responsibilities onto the operators being contracted to do the work.

It appears in these instances that operators are unaware of their responsibilities as the safety cases are submitted without a removal methodology being adequately engineered or described, which is typically provided by the titleholder.

This passing of the buck can potentially lead to contractors being saddled with decommissioning responsibilities without the proper knowledge and practices to carry out the work.

As a result, safety case submissions from contractors are being submitted to NOPSEMA in which decommissioning activity is included in the scope at only a high level, with no detailed description of the activity, methodology or assessment of the associated hazards and risks.

The risks and responsibilities lie with the contractors undertaking the activities – decommissioning activities introduce a degree of uncertainty by nature of the facility

Titleholders should be involved in ensuring workplace safety, whether designing wells or maintenance of property and equipment, these are all duties on the titleholder for any property and equipment in the title area, including their contractors.

NOPSEMA is aware of several key changes in decommissioning methods (most notably in relation to lifting and towing of property) that have occurred relatively late in the planning process.

A major concern is that detailed engineering and design for decommissioning activities is being deferred and therefore neither the titleholders or operators have the information they need to be appropriately informed of relevant risks when safety cases are being submitted.

All operators need to be aware that if something goes wrong, they will be held accountable and understand what risks they are responsible for under the OPGGS Act.

Just in case: the importance of risk assessment

NOPSEMA's Head of Safety and Integrity Division Derrick O'Keeffe shares his thoughts.

Following a number of safety cases being rejected in which hazards that could cause a major accident event (MAE) had not been appropriately considered, we are reminding operators to remain vigilant in their risk assessment processes.

In some cases, the hazards were omitted from the formal safety assessment descriptions on the basis they were not considered to be "credible" due to the control measures already in place.

Operators may be tempted to exclude major accident events because they're perceived to be extremely unlikely because the existing controls are deemed to be highly effective.

However, we know from experience that existing controls are not always adequate enough to provide appropriate levels of protection or risk reduction.

A recent example of this involved an operator claiming structural failure from jet fire penetration on a production platform was not expected to occur – and therefore not an MAE – due to emergency shutdown systems (ESD) and inventory isolation.

However, structural integrity failure due to jet fire is known to occur in the offshore oil and gas industry even when technical controls such as inventory isolation and ESD are implemented.

Another operator believed the risk of a high-speed collision between a vessel and a platform was not credible because it would require the failure of multiple controls.

As experience shows, such controls have been known to fail with the resulting potential impact energy being sufficient to damage both the vessel and the platform, leading to a loss of hydrocarbon containment and loss of stability.

It doesn't matter how small the likelihood of these outcomes, they must be taken into consideration and not dismissed out of hand.

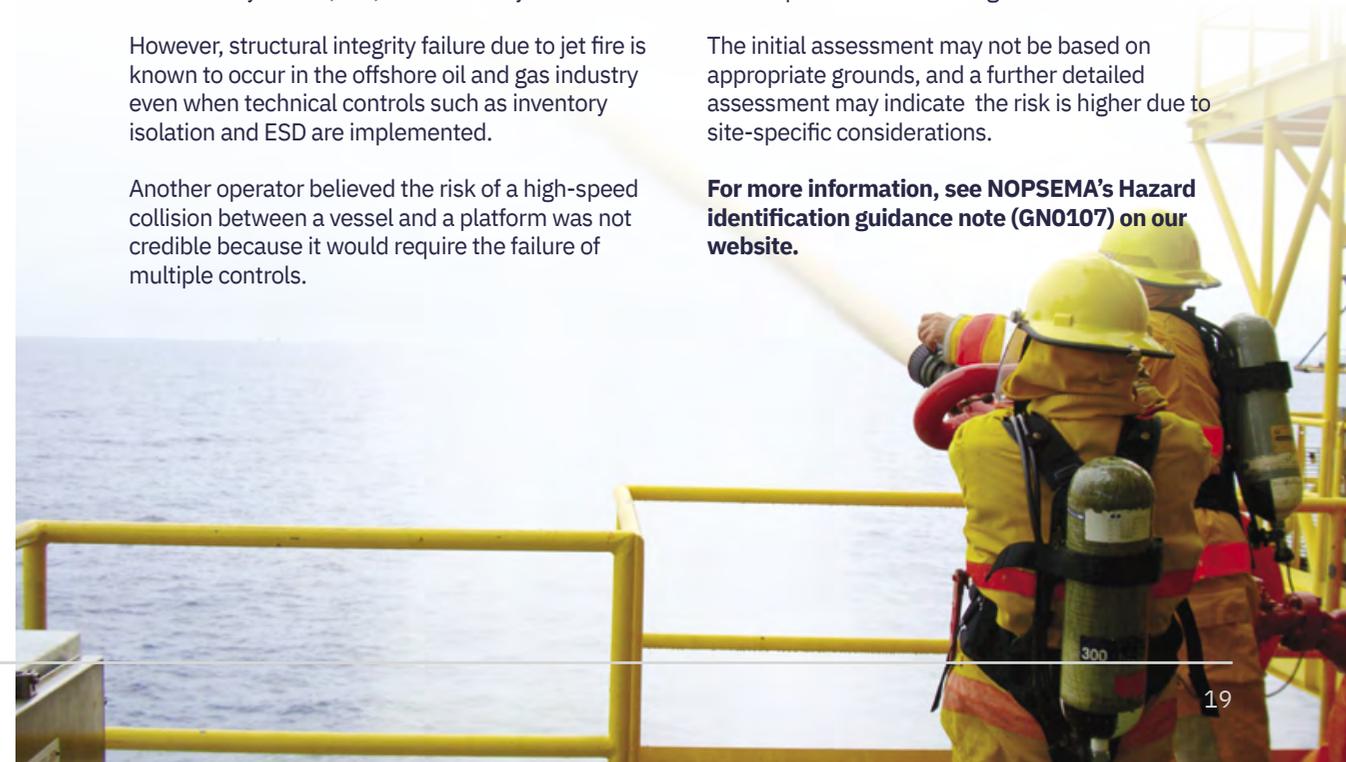
It's a central tenet of both the safety case concept and the objectives-based offshore petroleum safety regulatory regime that operators identify hazards and demonstrate sufficient controls are in place to reduce the risks associated to as low as reasonably practicable (ALARP).

Controls that are thought to eliminate the risk can deteriorate over time and the effectiveness of new controls is often unproven.

NOPSEMA guidelines also note the effectiveness of technical controls should be regularly tested, where practicable, and may not be adequately managed if their importance is not recognised.

The initial assessment may not be based on appropriate grounds, and a further detailed assessment may indicate the risk is higher due to site-specific considerations.

For more information, see NOPSEMA's Hazard identification guidance note (GN0107) on our website.



New industry information on emissions reduction

With an increase in global awareness surrounding the issue of climate change – coupled with an ever-increasing, international focus on greenhouse gas (GHG) emissions targets – reducing emissions from petroleum activities is an area of increased focus for NOPSEMA and the industry globally.

Consequently, new information relevant to oil and gas industry emissions continues to be released on a frequent basis.

NOPSEMA has a role to ensure industry efforts support the government's policy to reduce GHG emissions by 43 per cent by 2035 and work towards the goal of net zero by 2050.

Just recently, the International Petroleum Industry Environmental Conservation Association (IPIECA), the International Association of Oil and Gas Producers (IOGP) and the World Bank – the constituent members of the Global Gas Flaring Reduction partnership (GGFR) – released new flaring management guidance for the oil and gas industry.

While a large part of the guidance is aimed at providing a framework to drive the phasing out of the routine flaring, there are also elements relating to new project design, the improved management of safety flares as well as the reduction of non-routine flaring.

A collection of case studies has also been included where emissions have been significantly reduced or re-purposed by petroleum companies around the world.

In collaboration with the World Business Council for Sustainable Development, the IPIECA has also released a Sustainable Development Goals (SDG) Roadmap for the oil and gas sector which identifies impact opportunities against the UN's 17 climate SDG.

What you need to know about cyber security

Titleholders have been urged to review their cyber security policies and procedures, following the introduction of a new set of incident reporting rules.

Under Security of Critical Infrastructure (Application) rules (LIN 22/026) 2022, critical infrastructure owners and operators are now required to report a cyber security incident to the Australian Cyber Security Centre (ACSC) if they are captured by the asset definitions as of 8 April 2022.

These new cyber security incident reporting obligations are in addition to, and do not replace, existing obligations under the Offshore Petroleum and Greenhouse Gas Storage Act (OPGGGS Act).

This means a cyber security incident associated with an accident or dangerous occurrence may need to be reported to both NOPSEMA and the ACSC.

As of 8 July 2022, it became mandatory to report any cyber incidents concerning critical infrastructure to the ACSC.

Contact the ACSC on 1300 272 524 or enquiries@CISC.gov.au to learn more about this new obligation, and where and how to report a cyber security incident.

To notify NOPSEMA of an accident, dangerous occurrence or cyber security incident, call 1300 674 472. If in doubt, notify NOPSEMA.

Updated guidance on safety case content and level of detail

NOPSEMA recently updated an important guidance note regarding safety cases as part of push to clarify expectations.

As a result, the “Safety case content and level of detail” guideline regarding the application of standards under Regulation 2.7 of the Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations now includes the following text:

“Specified or listed standards have been (or will be) applied in their entirety (for operations and design), without exception, unless specifically stated otherwise in the safety case. In such cases, the deviation from the standard should also be justified, to demonstrate that safety risks are reduced to a level that is as low as reasonably practicable.”

This update has been made after NOPSEMA inspectors observed some operators deviating from aspects of the standards specified in their safety case without written justification or risk assessment.

Operators are expected to follow the standards specified in their safety case without deviation unless there is a reasonable and risk-assessed justification to do so which is also provided.

Standards generally represent current industry good practice in the context for which they are written. By consensus, industry accepts these standards contribute to reducing safety risk to a level that is as low as reasonably practical (ALARP).

For more information see the “Safety case content and level of detail” guidance note.





nopsema.gov.au

**National Offshore Petroleum Safety and
Environmental Management Authority (NOPSEMA)**

ABN 22 385 178 289