



Australian Government

Department of Industry and Science



2015 OPERATIONAL REVIEW OF
THE NATIONAL OFFSHORE PETROLEUM
SAFETY AND ENVIRONMENTAL
MANAGEMENT AUTHORITY

Report for the Minister for Industry and Science

September 2015

2015 OPERATIONAL REVIEW OF THE NATIONAL OFFSHORE PETROLEUM SAFETY AND ENVIRONMENTAL MANAGEMENT AUTHORITY

Report for the Minister for Industry and Science

Noetic Solutions Pty Limited

ABN 87 098 132 024

September 2015

Noetic Solutions Pty Limited

ABN: 87 098 132 027

Alphen House, Level 3, 70 Druitt Street

SYDNEY NSW 2000 Australia

Phone +61 2 9264 2754

Fax +61 2 6232 6515

Web www.noeticgroup.com

This report was prepared for the Department of Industry and Science by Noetic Solutions Pty Ltd



30 JUNE 2015

LETTER TO THE MINISTER

The Hon Ian Macfarlane MP
Minister for Industry and Science
PO Box 6022
House of Representatives
Parliament House
CANBERRA ACT 2600

Dear Minister

2015 Operational Review of National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)

We are pleased to advise we have completed our review in accordance with the requirements of the Offshore Petroleum and Greenhouse Gas Storage Act 2006 and the Terms of Reference provided.

The appended report includes:

- + The Report
- + Our findings, recommendations and various attachments
- + Copies of written submissions provided to the Review Team

This letter is signed by all members of the Review Team.

Yours faithfully

A handwritten signature in blue ink, appearing to read "Ken Fitzpatrick".

Mr Ken Fitzpatrick

Chair

A handwritten signature in blue ink, appearing to read "D. Agostini".

Mr David Agostini

A handwritten signature in blue ink, appearing to read "P. Wilkinson".

Mr Peter Wilkinson

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ACKNOWLEDGEMENT

We would like to thank all the stakeholders for their contributions through written submissions or interviews with the Panel that conducted this review. We are most grateful for the cooperation and assistance of all the people we met with and with whom we worked during the review. We particularly thank the CEO of NOPSEMA Mr Stuart Smith and his staff for their considerable help. Ms Jayne Ballantyne of NOPSEMA worked closely with us during the review and provided invaluable information and contributions to the work of the Panel. And thanks to staff from the Department of Industry and Science and from AusIndustry in Perth, Sydney and Melbourne for granting access to their meeting facilities to support the review process.

1.0 EXECUTIVE SUMMARY

This is the first report on the operations of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). There have been two previous triennial reviews of the National Offshore Petroleum Safety Authority (NOPSA), the last covering the period from 2009 to 2011. From 1 January 2012, NOPSA's role was expanded to include environmental regulation in Commonwealth offshore waters and renamed NOPSEMA. As a result, this is the first review of NOPSEMA and covers the expanded regulatory remit of environmental management, well and facility integrity and safety legislation.

SCOPE OF THE REVIEW

The review was carried out in accordance with Section 695(2) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cwlth) (OPGGGS Act) and covers the period from 1 January 2012 to 31 December 2014. The review includes an assessment of NOPSEMA's operational effectiveness in bringing about improvements in:

- + The occupational health and safety (OHS)¹ of persons engaged in offshore petroleum operations or offshore greenhouse gas storage (GHS) operations.
- + The structural integrity of facilities, wells and well-related equipment.
- + Offshore petroleum environmental management including the effectiveness of the integration of environmental management into NOPSEMA's functions.
- + Offshore greenhouse gas storage environmental management.

The review also examines NOPSEMA's governance arrangements in accordance with the *Public Governance, Performance and Accountability Act 2013* (Cwlth) (PGPA Act); how NOPSEMA will respond to changes in industry and emerging issues; and NOPSEMA's interaction with external parties.

TERMS OF REFERENCE

The report is organised in accordance with the four elements of the Terms of Reference (ToR). These address:

- + ToR #1 Effectiveness of bringing about improvement in OHS of persons in offshore petroleum operations or offshore greenhouse gas storage operations, structural integrity of facilities, wells and well-related equipment, effectiveness of integration of environment management.
- + ToR #2 Governance in relation to the PGPA Act.
- + ToR #3 Emerging issues including new technology and well decommissioning.

¹ OHS in the oil and gas industry is outlined within the OPGGS Act, rather than the harmonised WHS Act 2012

- + ToR #4 Stakeholder engagement.

The full Terms of Reference are at Annex A.

THE REVIEW EXPERT PANEL

The Review Expert Panel ('the Panel'), comprising Mr Ken Fitzpatrick (Chair), Mr David Agostini and Mr Peter Wilkinson, presented this report, the *2015 Operational Review of the National Offshore Petroleum Safety and Environmental Management Authority*, to Minister Macfarlane on 30 June 2015. A short biography of the panel members can be found in Annex B.

SUMMARY OF FINDINGS

Integration of Environmental Regulations

The Panel found that the integration of environmental regulation into the newly formed NOPSEMA was the single most important event in the period under review and this proved challenging for all stakeholders, including industry and NOPSEMA. This topic forms the major part of this report. Difficulties operationalising the new Environment Regulations included the short time given to establish NOPSEMA, underestimating the amount of change required by industry to adapt to the single regulatory structure and systems, and the initially poor communications between NOPSEMA and stakeholders regarding the change to a more consistent standard of application of the existing Environment Regulations.

Notwithstanding these difficulties, which were most marked in the early part of the period covered by this report (to mid-2013), NOPSEMA has been effective in implementing the change in management of Environment Regulations in Commonwealth waters. The Panel heard evidence of significant improvements in identifying environmental risks and controls and in oil spill planning and preparedness by industry due in part to the work done by NOPSEMA, although some residual issues remain.

In the opinion of the Panel there are two issues which predominate and impact NOPSEMA's effectiveness in ToR #1. First, a perception of a lack of transparency in NOPSEMA's decision making (on environmental issues) as viewed by both industry and non-governmental organisations with an interest in environmental issues. Second, NOPSEMA's perceived emphasis on its independence was at the expense of clear communications and advice to industry. NOPSEMA's strong focus on maintaining independence from industry appears to have led to a persistent lack of shared understanding on the extent to which the concepts of *risk* and reducing risk to *as low as is reasonably practicable* (ALARP) may be used to describe the potential environmental impacts of oil and gas activities. Achieving an appropriate balance between regulation and advice is difficult, but important in a *goal setting* regulatory regime where there are relatively few prescriptive standards.

Both of these issues are important as they have potential to detract from ongoing community confidence in the regulatory regime. The Panel has characterised this as NOPSEMA's social licence to regulate and is discussed in more detail in Section 8.5. Ensuring NOPSEMA's social licence to regulate will require the regulator to consistently demonstrate that it takes community stakeholder priorities, concerns and issues into account when making decisions and to enforce industry compliance with regulations.

Safety and Well Integrity

On the safety side, perhaps due in part to greater organisational maturity on these topics, the Panel found that NOPSEMA was largely effective in discharging its functions in relation to health and safety, including addressing major accident event avoidance, wells and facility integrity. However, the Panel has identified some areas for further improvement which are discussed in the report.

Governance

The Panel found that NOPSEMA has effective internal controls and the organisational structure to ensure governance and compliance with legislation for a public sector body, risk management, information management systems and financial management. This finding is in the context of NOPSEMA's expanded functions and powers (ToR #2).

Response to Emerging Developments and Issues

The third ToR relates to NOPSEMA's capacity to respond to emerging developments and issues in industry (of which new technology is but one). The highest profile topic in this category and one specifically referred to in the ToR is floating liquefied natural gas and NOPSEMA's capability to respond effectively to this development. The Panel found that there has been effective engagement between the Duty Holder for this new technology and NOPSEMA over the past three years. The Panel found that NOPSEMA has handled this well and the planned legislative changes to specifically address early engagement of safety case issues at the design stage will enable an improved process.

Stakeholder Engagement

The inclusion of the environment portfolio into NOPSEMA's responsibilities has made the stakeholder landscape significantly more complex (ToR #4). With the inclusion of environment, the oil and gas industry becomes one of many stakeholders with an interest in offshore waters. Other stakeholders will continue to have concerns that the oil and gas industry will have a negative impact on their interest in common use areas. It has been noted that oil and gas activities may temporarily displace non-industry users/stakeholders from marine areas. There is a perception that NOPSEMA is ineffective at ensuring Duty Holders effectively engage with these other users (Note: Duty Holder will be used throughout the document as a collective term for operator, proponent and Titleholder).

The challenge when assessing environment plans is that NOPSEMA must ensure the oil and gas industry has access to explore in a reasonable manner while ensuring the oil and gas industry is cognisant of, and respects, the interests of other users. NOPSEMA now has the responsibility to regulate in a fair and transparent manner for all the sometimes competing interests. Improved maturity with regards to regulating in a multi-user space will see greater recognition that decisions by NOPSEMA has a wide ranging impact outside the oil and gas industry. A key component to this is NOPSEMA's transparency in communicating its decision logic for multi-user waters.

2.0 RECOMMENDATIONS AND FINDINGS

2.1 Recommendations

The following table summarises the recommendations made by the Panel in this report.

Recommendation 1: NOPSEMA should emphasise in its published documents the role it undertakes in the prevention of major accident events.
Recommendation 2: NOPSEMA should further analyse and publish trends based on data gathered on process safety to encourage greater emphasis on process safety, including major accident events.
Recommendation 3: NOPSEMA should consider developing or using lead indicators of major accident events performance such as those being developed by the International Association of Oil and Gas Producers (IOGP). ²
Recommendation 4: NOPSEMA should continue to invest in and improve the communications capability of its staff, with an emphasis on personnel who engage directly with stakeholders.
Recommendation 5: NOPSEMA should continue to identify and implement cost effective and tailored/targeted education activities that improve its capacity to engage with stakeholders in order to share lessons, provide guidance and share new information.
Recommendation 6: NOPSEMA should review adequacy of guidance notes and improve communication of the assessment process to ensure industry understands the importance of <i>nature and scale</i> within the risk assessment process. NOPSEMA should also workshop actual examples of high risks, assessed impacts and agreed controls and mitigations to demonstrate how the process works in reality and best practices.
Recommendation 7: NOPSEMA should review relevant guidelines in conjunction with relevant stakeholders (e.g. APPEA) to clarify the activities which require environment plans and oil pollution emergency plans.
Recommendation 8: The Department of Industry and Science should continue to review the scope of powers and authority that NOPSEMA requires for regulating activities associated with greenhouse gas storage.
Recommendation 9: The Department of Industry and Science should develop regulations regarding the Design Notification Scheme in collaboration with NOPSEMA and appropriate stakeholders.

² <http://www.iogp.org/>

Recommendation 10: NOPSEMA should prepare for increased decommissioning activity in the future by working with the Department of Industry and Science, industry stakeholders and relevant parties to develop guidance notes on decommissioning.

Recommendation 11: The Department of Industry and Science should clarify the appropriate mechanism to allow NOPSEMA to vary legacy environmental conditions and associated approvals granted prior to 1 January 2012 where appropriate.

Recommendation 12: NOPSEMA and AMSA should refresh their Memorandum of Understanding and in doing so seek clarity on their commitments and responsibilities under their respective Acts.

Recommendation 13: NOPSEMA should develop a mechanism to provide greater transparency of decision making and assessments to stakeholders.

Recommendation 14: NOPSEMA should continue to seek expert advice from the Board when necessary.

Recommendation 15: NOPSEMA and NOPTA should develop an appropriate mechanism (for example an MOU or charter of engagement) to identify the interfacing points and areas of cooperation between the agencies, and their respective responsibilities.

Recommendation 16: NOPSEMA should provide more engagement mechanisms to collaborate with the workforce and health and safety representatives.

2.2 Findings

This section summarises the findings made throughout the report. The findings are presented under the sections of the report in which they appear.

5.1.3 MAJOR ACCIDENT EVENT (MAE) FOCUS

NOPSEMA's operational practice is strongly focused on compliance with controls identified in safety cases and well operations management plans (WOMP) to minimise the risk of major accident events and in environment plans to prevent impacts on sensitive environment receptors. The focus on major accident events has become clearer in recent NOPSEMA published material. There is an opportunity for NOPSEMA to provide leadership on process safety by making use of whole-of-sector data to identify trends in process safety. NOPSEMA can leverage its membership of the International Regulators Forum, and other sector engagement (i.e. conferences), to identify developing process safety practices and learnings, and communicate those to its stakeholders.

5.2.3 STAKEHOLDER VIEWS ON CAPABILITY

NOPSEMA has made significant improvements in its operational capability since the last review. The extent and range of compliance or enforcement actions undertaken indicates that NOPSEMA is acting as an effective and capable regulator. The organisation has invested in the individual operational capability of its inspectors who demonstrate a breadth of experience and depth of knowledge appropriate for their role. NOPSEMA has recognised that it may need to seek additional expertise outside the organisation, and collaborate with appropriately knowledgeable agencies or organisations.

There is an opportunity for NOPSEMA to invest in improving the communications capability of its personnel. This includes 'softer' communications skills, for example, influencing and negotiating skills. Developing the communications capability of NOPSEMA personnel can directly contribute to NOPSEMA's ability to be seen as a competent regulator. This is an important part of the process of earning a social licence to regulate (as discussed in Section 8.5).

5.3.1 INSPECTIONS

The Panel found that NOPSEMA takes a pragmatic approach to inspections but could be more flexible in increasing or decreasing the number of inspections in regard to the operators' risk profiles. A more flexible approach could contribute to NOPSEMA's ability to act effectively by facilitating a more efficient allocation of NOPSEMA's resources. This would improve NOPSEMA's capacity to focus on high risk facilities.

5.3.2 A CONSULTATIVE APPROACH

NOPSEMA has not always engaged as effectively as possible with industry stakeholders to develop practical guidance. However, NOPSEMA has demonstrated that it understands the importance of effective engagement, and has demonstrated that it is undertaking improvements in this area.

5.3.3 CONSISTENCY

Comparable to the 2011 Triennial Operational Review of NOPSEMA, stakeholders consulted during this review have advised the Panel that inconsistencies exist between individual inspectors from the Environment and Safety sections.³ The Panel understands that NOPSEMA is addressing these inconsistencies. NOPSEMA has established a regular internal peer review process for safety cases, WOMPs, and environment plans with the aim of ensuring greater consistency between permissive document assessments. NOPSEMA is currently meeting its statutory timeline obligations for permissioning documents. NOPSEMA appear to understand the importance of

³ Chris Raper, Agu Kantsler and Robin Stewart Crompton, *Second Triennial Review of the Operational Effectiveness of the National Offshore Petroleum Safety Authority*, National Offshore Petroleum Safety and Environmental Management Authority, 2011, 3, <http://www.nopsema.gov.au/assets/Publications/Report-Second-Triennial-Review-of-NOPSA-text-and-submissions.pdf>

consistency, both from a process perspective, i.e. better consistency leads to better operational efficiencies, and through the lens of improving stakeholder perceptions. Notwithstanding the challenges of achieving total consistency in a goal setting regime, NOPSEMA is actively seeking to operate in a more consistent manner.

5.4 THE TRANSITION FROM NOPSA TO NOPSEMA

The Panel found a consensus exists with stakeholders that the transition to the new regime was challenging for both the industry and NOPSEMA. The Panel understands the challenges that impeded effectiveness have largely been resolved or that NOPSEMA is working to address them. Communication between NOPSEMA and industry has steadily improved. The working relationship between industry and NOPSEMA on environmental matters has improved, with more clarity on the responsibilities of each. Both industry and NOPSEMA has acknowledged that further improvement can be made. These are discussed in Section 8.3.1: The Regulated Entity – Industry.

5.4.2 INITIAL ASSESSMENTS OF ENVIRONMENT PLANS

Not all industry Duty Holders recognised the importance of the *nature* and *scale* of a risk in the preparation of environment plans as they relate to lower order impacts and risks. Industry routinely puts disproportionate effort into preparing content on low/medium impacts and risks. The majority of NOPSEMA's assessment findings related to higher order impacts and risks and the inconsistent application of proponents' risk assessment processes. Lower order impacts and risks are required to have controls identified, but it is more straightforward to demonstrate that they are managed to acceptable levels and ALARP (usually relevant standards for these such as the International Convention for the Prevention of Pollution from Ships (MARPOL))⁴, for sewage.

5.5.6 ENFORCEMENT VS EDUCATION

The Panel found NOPSEMA has an adequate set of enforcement tools available, and appears to be using those tools appropriately. The additional enforcement tools legislated in October 2014 are noted in the Table 6: NOPSEMA's Enforcement Tools. NOPSEMA has used a balanced approach to regulation using both enforcement and education. The Panel believes that NOPSEMA should take additional educational initiatives specifically to improve industry performance. The Panel recognises that education activities are resource intensive. Increasing the amount of compliance-related education will require NOPSEMA to work effectively within its current budget and identify the most cost effective education activities, for example, sharing industry-wide improvements in forums such as workshops.

⁴ International Convention for the Prevention of Pollution from Ships (MARPOL), International Maritime Organisation, [http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx)

5.6.2 ASSESSMENTS OF GREENHOUSE GAS STORAGE ACTIVITIES

The Panel noted that NOPSEMA has conducted a limited number of assessments of greenhouse gas storage seismic survey activities through delegation of authority from the Minister. To enable NOPSEMA to routinely carry out these functions in the future, the Panel believes that the Department of Industry and Science ('the Department') should give further consideration to the scope of NOPSEMA powers with respect to greenhouse gas storage operations.

6.2.4 QUALITY MANAGEMENT SYSTEM AND REGULATORY MANAGEMENT SYSTEM

The Panel found that NOPSEMA demonstrates an effective internal governance structure with appropriate policies and procedures. The Panel found that:

- + The internal corporate structure provides a governance arrangement that promotes independence, transparency, cost recovery and is appropriate to the organisation.
- + The number of stakeholders with environmental concerns is significantly larger than those with an interest in safety regulation. Consequently, stakeholder engagement with environmental stakeholders is considerably greater, and likely to be more resource intensive. This needs to be considered in future NOPSEMA resource planning.
- + NOPSEMA has an appropriate Freedom of Information management system.
- + NOPSEMA is supported by an appropriate Quality Management System and Regulatory Management System.
- + NOPSEMA has made improvement in the way it shares information (both inter agency and with external stakeholders).
- + Inter-agency collaboration is being undertaken with appropriate acknowledgement of risks which impact multiple agencies.

The Panel believes that the internal governance structure within NOPSEMA provides both the appropriate oversight and should support the future growth of the organisation, and the capacity to take on additional responsibilities in a way that does not impede or undermine its ability to conduct its current responsibilities.

6.3.4.1 REGULATOR PERFORMANCE FRAMEWORK

The Panel found that NOPSEMA's corporate risk is well managed. This includes an annual review of the risk register and ownership of risks and controls by key staff. The risks are identified, appropriate controls established and effectiveness monitored and rated. Overall, the corporate risk management framework is comprehensive and residual risk is managed effectively.

The Panel found that NOPSEMA engages daily with risk and risk assessments and analyses and assesses these risks by:

- + Implementing and maintaining an effective risk-based monitoring and compliance framework, and employing appropriate regulatory tools to ensure compliance and risk mitigation.
- + Maintaining a transparent and well documented systematic risk management framework to assist in the identification, evaluation and mitigation of regulatory risks and ensure that NOPSEMA resources are allocated to match identified priorities.
- + Undertaking the Comcover benchmarking survey to establish a risk management policy and framework.

6.4.1 NOPSEMA'S COMPLIANCE WITH THE PGPA ACT

The Panel has sighted NOPSEMA's internal audit systems and relevant documents, and is satisfied that the financial systems and controls in place are appropriate to ensure compliance with the *Public Governance, Performance and Accountability Act 2013* (Cwlth) (PGPA Act).

7.1.4 DESIGN NOTIFICATION SCHEME

New technologies are being developed by the oil and gas industry on a continuous basis and regulators need to be able to assess the risk analysis presented to them by industry in each case. The major emerging case in the Australian environment is Floating Liquefied Natural Gas (FLNG). The Panel has seen evidence of a process of early engagement with Shell as the Prelude FLNG project moved through various stages of its development. This has facilitated NOPSEMA's ability to access the risk management strategy proposed by Shell.

Duty holders that have participated in the early engagement process have commented positively on the value of the engagement with NOPSEMA at the design phase of a proposed production facility. However, operational experience has revealed that the Safety Regulations do not currently provide the necessary flexibility to allow NOPSEMA and Duty Holders to meaningfully discuss the technical complexities and design issues often associated with new technologies. The Panel supports the design notification scheme as an important early engagement mechanism.

7.2 DECOMMISSIONING OF FACILITIES

The Australian oil and gas industry is anticipating a large increase in decommissioning activity in the future. In preparation for this, additional resources will need to be identified by NOPSEMA to support the increased management of decommissioning activities. A pragmatic approach to the management of decommissioning activities may facilitate better management of the decommissioning of pipelines, wells and subsea equipment, with flexibility to address decommissioning on a case by case merit. However, a lack of clarity identifying the most appropriate mechanism to revise legacy environment approvals may constrain this.

7.3 SURRENDER OF TITLE AND LEGACY WELL ABANDONMENTS

In the past it had been difficult for NOPTA to obtain suitable advice regarding well abandonment in order to finalise its advice regarding Titleholder applications to surrender permits in good standing.

7.5 INDEPENDENT CUSTODIAN OF SCIENTIFIC DATA

The Panel found there is a need for a suitable agency (or agencies) to act as the custodian of independent environmental studies. This will help to ensure credibility of the studies for industry and community stakeholders.

8.1 THE ROLE OF STAKEHOLDER ENGAGEMENT

The Panel have found that NOPSEMA's regulation of the oil and gas industry's access to marine areas may temporarily displace other non-industry users during the period of oil and gas activity. This may have a commercial impact on the other industries, i.e. ecotourism, fishing, recreational users. However, there is a perception that NOPSEMA is ineffective at ensuring Duty Holders effectively engage with other users. It is therefore critical that NOPSEMA regulates the oil and gas industry access to marine areas with awareness of how its decisions may impact other industries.

8.2 NOPSEMA STAKEHOLDER MANAGEMENT FRAMEWORK

NOPSEMA needs to balance stakeholder engagement without compromising its regulatory independence. The Panel has found a need for NOPSEMA to build a social licence to regulate, which is further discussed in Section 8.5: Toward a Social Licence to Regulate.

8.3.1 THE REGULATED ENTITY – INDUSTRY

NOPSEMA has a role in promoting continuous improvement in industry performance. The engagement with industry has resulted in improvements in risk identification, management and control in environment plans and oil pollution emergency plans.

8.3.2 AMSA

Similarly to the 2011 Triennial review the relationship between AMSA and NOPSEMA has been constrained by a lack of clarity on the touch points between the two agencies and their legislations. This has been slowly improving, to the extent that the Panel heard that the agencies cooperate well at an operational level. A proactive approach from both agencies and the policy departments could be useful in clarifying the interaction between the two agencies and the two pieces of legislation.

8.3.3 ENVIRONMENTAL NON-GOVERNMENT ORGANISATIONS AND COMMUNITY

NOPSEMA has achieved an increasing number of positive environmental outcomes since assuming responsibility for the new environmental regime. However, a significant lack of transparency and trust with environmental non-government organisations (NGOs) and community still exists. The Panel believes that NOPSEMA should, whenever appropriate, provide reasons for decisions to community and stakeholders. Acting transparently by sharing the reasons for decisions should contribute to building and improving trust with community and stakeholders.

8.3.4 NOPSEMA BOARD

In the past the Board has been under-utilised, however this has improved over the period of this review. The Panel found there is a formal mechanism for NOPSEMA to seek advice from the Board. The Panel expects this will improve the utilisation of the Board and its capacity to provide appropriate guidance.

8.3.5 NOPTA

During the initial period of operations of both agencies, NOPSEMA and NOPTA had limited cooperation, however this is improving. The Panel believes an opportunity exists to further improve cooperation. The most appropriate mechanism to facilitate this is the establishment of a Memorandum of Understanding. This will require review and refinement in order to expressly clarify the interfacing points between the agencies. If in the future NOPSEMA provides regular services to NOPTA, both agencies will need to clarify the supporting financial arrangements.

8.3.6 OTHER INDUSTRIES

NOPSEMA's regulation of the oil and gas industry's access to marine areas may temporarily displace other non-industry user's access during periods of oil and gas activities. This may have a commercial impact on the other industries. It is therefore critical that NOPSEMA regulates the oil and gas industry access to marine areas with awareness of how its decisions may impact other industries.

We found non-oil and gas companies that engage with NOPSEMA have minimal transparency over NOPSEMA's decision making process. In addition, they believe NOPSEMA does not understand the impact oil and gas activities may have on the commercial interests of other users.

As discussed in Section 8.1 (The Role of Stakeholder Engagement) and Section 8.3.3 (Environment Non-Government Organisations and Community), there is an opportunity for NOPSEMA to better share the reasons for its decisions as part of an improved education process, and to more effectively regulate oil and gas industry access to marine areas in a fair and balanced way.

8.3.8.1 HEALTH AND SAFETY REPRESENTATIVES

Given the central role to workplace consultation and the involvement of the workforce in safety case regulation, both APPEA and the Australian Council of Trade Unions (ACTU) are of the view more should be done to engage with the workforce and health and safety representatives. This could be through NOPSEMA's sponsorship or co-sponsorship and lead of the annual Health and Safety Representatives Forum, refreshing the Health and Safety Representative Guidance notes and other means of communication.

8.4 CONFERRAL OF POWERS

Conferral of powers is a complex issue. A major barrier is the lack of sufficient trust in NOPSEMA to appropriately regulate the environment, specifically the EPBC Act. The Panel found insufficient trust is an issue for state regulators, their respective ministers, the community and environment NGOs.

Each of the state and territory jurisdictions have different capabilities to carry out the regulation of offshore oil and gas activities independently. It is therefore likely that conferral will occur on a different timetable for each jurisdiction, and also less rapidly for conferral of environmental regulation than for safety and well integrity. The objective of full conferral will be facilitated by ensuring that the state and territory jurisdictions develop full confidence in NOPSEMA's capability to recognise the impacts on other users and balance their concerns and priorities when regulating oil and gas activities.

Industry stakeholders generally support conferral, in particular those stakeholders which have facilities that operate over multiple jurisdictions. Conferral to a single regulator would reduce the regulatory burden of compliance.

3.0 INTRODUCTION

3.1 Background

This report is the first operational review of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). NOPSEMA is the responsible authority for administering the offshore oil and gas industry in Australia under the *Offshore Petroleum and Greenhouse Gas Storage Act (2006)* (Cwlth) (OPGGs Act), associated legislation and other regulations.

The OPGGS Act requires a review of NOPSEMA's operations three years following its inception and subsequently every five years.⁵ The review has examined NOPSEMA's operations from its commencement on 1 January 2012 in relation to the Terms of Reference (ToR) outlined at Annex A. NOPSEMA's regulatory responsibilities are much greater than those of its predecessor, the National Offshore Petroleum Safety Authority (NOPSA). The two most significant additions are the incorporation of environmental management in Commonwealth offshore waters to NOPSEMA as the single regulator for safety and environment; and the streamlining of the environmental regulation under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act 1999).

This review has regard to the following previous reviews or reports:

- + The 2008 operational review of NOPSA by Ognedal, Griffiths and Lake, and the 2011 second operational review of NOPSA by Raper, Kantsler and Stewart-Crompton. Both reviews examined the offshore petroleum regulatory arrangements and the effectiveness of NOPSA as a regulator as outlined in the OPGGS Act. From their findings, both reports made recommendations for improvements.
- + The *Government Response to the Montara Commission of Inquiry 2010*. Over one hundred recommendations were made including recommendations regarding NOPSA's statutory powers, increasing its regulatory responsibility to include management of environmental affairs and its administrative practices.
- + The 2014 *Report into the Establishment and Administration of NOPSEMA* by the Australian National Audit Office (ANAO), examined the effectiveness of the governance and administration of NOPSEMA and its regulatory powers, making several findings and recommendations to improve its regulatory oversight of the industry.

The status of NOPSEMA's progress on the recommendations and findings of the ANAO and 2011 operational review are summarised in Annex C.

⁵ See s.695 of the OPGGS Act.

3.2 Aim

The aim of this report is to present the findings of the Panel's Operational Review of NOPSEMA. This includes the findings developed from the Panel's consultation with stakeholders, and research and analysis conducted by the review's Secretariat. A list of the organisations the Panel engaged with during the review process, and a list of organisations that provided written submissions can be found in Annex D and Annex E respectively. The aim of the review is to examine the regulatory arrangements, governance and operational environment of NOPSEMA to make recommendations to improve its effectiveness in bringing improvements to the oil and gas industry, governance arrangements, ability to respond to changes in industry and NOPSEMA's interactions with external parties.

3.3 Scope

The scope of this report is to assess the performance of NOPSEMA's legislated functions as set out in the Terms of Reference (ToR) (see Section 3.4). The report will examine the regulatory arrangements, governance and operational environment of NOPSEMA to make recommendations to improve its effectiveness in bringing improvements to the oil and gas industry, governance arrangements, ability to respond to changes in industry and NOPSEMA's interactions with external parties.

This report will detail recommendations that will lead to ongoing incremental improvement of the legislated functions of NOPSEMA. These recommendations will ensure that Australia's key offshore safety and environmental regulator is well positioned to implement continuous improvements.

3.4 Terms of Reference

In accordance with section 695(2) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cwlth)*, the 2015 Operational Review of NOPSEMA will give consideration to:

Terms of Reference	Term of Reference sub-section	Relevant Recommendation	Cross-Reference to Sections
1. The effectiveness of NOPSEMA in bringing about improvements in:	a. The occupational health and safety of persons engaged in offshore petroleum operations or offshore greenhouse gas storage operations.	Recommendation 1 Recommendation 2 Recommendation 3 Recommendation 4	Section 5
	b. The structural integrity of facilities, wells and well-related equipment.	Recommendation 5	
	c. Offshore petroleum environmental management including the effectiveness of the integration of environmental management into NOPSEMA's functions since 1 January 2012 (but not specific issues to be reviewed as part of the 2015 Review of the Environmental Streamlining Program).	Recommendation 6 Recommendation 7	Section 5.4
	d. Offshore greenhouse gas storage environmental management.	Recommendation 8	Section 5.6.2
This will include NOPSEMA's performance against its functions and powers as set out in the OPGGS Act and regulations and consideration of opportunities consistent with the Government's deregulation agenda.			
2. NOPSEMA's governance arrangements in the context of its expanded functions and the requirements of the Public Governance, Performance and Accountability Act 2013.		No Recommendations	Section 6
3. NOPSEMA's capacity to respond to changes in industry including emerging issues such as industry operations and new technologies.		Recommendation 9 Recommendation 10 Recommendation 11	Section 7

Terms of Reference	Term of Reference sub-section	Relevant Recommendation	Cross-Reference to Sections
4. NOPSEMA's interaction with external parties (including industry, Commonwealth, state and territory government bodies, other stakeholders and the NOPSEMA Advisory Board) to improve regulatory outcomes in an objectives-based regulatory environment.		Recommendation 12 Recommendation 13 Recommendation 14 Recommendation 15 Recommendation 16	Section 8

Annex A contains the Terms of Reference as delivered to the Panel.

4.0 OVERVIEW OF NOPSEMA 2012–2014

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) is an independent regulatory body established with the purpose of regulating all offshore petroleum facilities and activities in Commonwealth waters, as well as designated coastal waters where regulatory functions have been conferred. This mandate comprises oversight for the health and safety, well integrity and environmental management of offshore petroleum and greenhouse gas storage activities in Commonwealth waters. Established on 1 January 2012, following the Government's response to the Montara Commission of Inquiry in 2010, NOPSEMA's corporate vision is to promote a safe and environmentally responsible Australian offshore petroleum and greenhouse gas storage industry.

NOPSEMA's role as the single offshore regulator with oversight of activities in Commonwealth waters is a unique one, which has been in development since 1999 when the Commonwealth Government commissioned a review of offshore safety in Australia. The report, *Future Arrangements for Regulation of Offshore Petroleum Safety*,⁶ identified shortcomings in the existing model and recommended a national regulator to provide a consistent regulatory approach.

In 2002 the Ministerial Council on Mineral and Petroleum Resources reconfirmed its commitment to establishing a single regulator, the National Offshore Petroleum Safety Authority (NOPSA). NOPSA began its operations on 1 January 2005, pursuant to amendments to the *Petroleum (Submerged Lands) Act (2003)* (Cwlth) (PSL Act),

⁶ *Future Arrangements for the Regulation of Offshore Petroleum Safety*, Department of Industry, Science and Resources, 2001, <http://www.nopsema.gov.au/assets/document/Future-Arrangements-for-regulating-Offshore-Petroleum-Safety.pdf>

which was subsequently renamed in 2006 the *Offshore Petroleum and Greenhouse Gas Storage Act (2006)* (Cwlth).

The 2009 Montara blowout and the 2010 BP Macondo disaster once again put offshore oil and gas industry under scrutiny. The findings from the Montara Commission of Inquiry (2010) highlighted a number of design, operator and regulatory failures. It recommended that well operations and environmental management be added to the oversight of NOPSA. In 2011 several amendments to the OPGGS Act were incorporated to fulfil the recommendations of the Inquiry. The most significant of these include:

- + Firstly, the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011 (Cwlth) took effect from April 2011, which gave NOPSA the responsibility for the administration of 'Part 5 – Well operations management plans and approval of well activities'.
- + Secondly, the most significant recommendation was the inclusion in NOPSA's remit of environmental management activities in Commonwealth waters. The change in name, from NOPSA to NOPSEMA, reflected these additional regulatory responsibilities.
- + NOPSEMA's establishment coincided with the establishment of the National Offshore Petroleum Titles Administrator (NOPTA), responsible for the day-to-day administration of petroleum and greenhouse gas titles in Commonwealth waters. The concurrent creation of NOPTA and NOPSEMA meant there were naturally occurring interfaces between the agencies, the implications of which are discussed in Section 8.3.5.

Under the new arrangement, the states and the Northern Territory Government, which had previously conferred Occupational Health and Safety (OHS) regulatory oversight to NOPSA, would need to confer well integrity. This was to be done under the states' and Northern Territory's specific petroleum regulations. On 1 January 2012, the existing conferrals lapsed and the National Regulator amendments included a provision which gave the states and Northern Territory a year to amend their legislation to include integrity functions. Victoria was the only jurisdiction to do this prior to 1 January 2013. Up to this date, NOPSEMA remained responsible for administering the safety functions in the Northern Territory, South Australia, Queensland and Tasmania.

NOPSEMA operates under the guidance of its Corporate Plan 2012–2015 with the objective to independently and professionally regulate offshore safety, well integrity and environmental management. The authority recently underwent an organisational restructure to strengthen its abilities to fulfil its legislative mandate. Consequently, it now focuses on three core areas including Compliance, Improvement and Governance, the intent being to strengthen its approach to corporate governance, risk management, compliance monitoring and enforcement. Further, NOPSEMA also refined its internal management systems to ensure the effective and efficient delivery of its mandate and reinforced its integrated risk management framework. In September 2014, Stuart Smith was appointed Chief Executive Officer (CEO) of the organisation.

4.1 NOPSEMA and the Regulation of the Offshore Petroleum and Greenhouse Gas Storage Industry

NOPSEMA's powers are subject to jurisdictional limits extending to Commonwealth waters and state and Northern Territory waters where powers have been conferred within coastal water limits under the *State Petroleum (Submerged Lands) Act*.⁷ To date, only Victoria has conferred regulatory powers for OHS and well integrity to NOPSEMA. NOPSEMA is also charged with environmental management of offshore petroleum and greenhouse gas activities under the OPGGS (Environment) Regulations 2009.

On 28 February 2014, a new streamlined approach for environmental approvals for offshore petroleum and greenhouse gas activities commenced, establishing NOPSEMA as the sole designated assessor for these activities in Commonwealth waters. The Minister for the Environment has approved all petroleum and greenhouse gas activities in Commonwealth waters in accordance with the NOPSEMA environment management authorisation process under the OPGGS Act and associated Environment Regulations, with the exception of exclusions listed in the approval notice. This approval means that Duty Holders seeking to undertake these activities in Commonwealth waters will no longer need to refer those actions for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (EPBC Act), provided the activity is assessed in accordance with the NOPSEMA environment management authorisation process.

The table overleaf (Table 1) summarises the number of operators and facilities that NOPSEMA regulates.

⁷ See s.646a of the OPGGS Act.

Table 1: NOPSEMA regulated activities 2012 – 2014

Category	Type	2012 ⁸	2013 ⁹	2014 ¹⁰
Occupational Health and Safety	Facility operators	36	29	35
	Facilities	151	149	148
Well Integrity	Titleholders	25	28	31
Environmental Management	Duty Holders	36	42	26
	Activities	110	129	109
Greenhouse Gas Storage	Assessments	2 in review period		

4.2 Economic Importance of the Australian Oil and Gas Industry

The success of NOPSEMA as an organisation is extremely important to Australia's economy considering the value added by a smooth functioning oil and gas industry. There is an expectation that the sector will continue to grow at 4.4% annually from 2013 to 2030. For 2012–2013 the Australian oil and gas industry contributed \$32 billion directly to the national economy. This figure is expected to more than double to \$67 billion by 2029–2030, while the sector's contribution to the economy as a percentage of GDP is expected to increase by 0.5% to 2.62%.¹¹ Offshore oil and gas exploration expenditures accounted for nearly half of all Australia's exploration expenditures in 2014 at \$3.3 billion AUD. However, with the recent decline in oil and gas prices, exploration activity is likely to decrease.

⁸ *Annual offshore performance report 2012*, National Offshore Petroleum Safety and Environmental Management Authority, 2013, <http://www.nopsema.gov.au/assets/Publications/NOPSEMA-Report-2013-HR-Web-reduced-size-PDF.pdf>

⁹ *Annual offshore performance report 2013*, National Offshore Petroleum Safety and Environmental Management Authority, 2014, <http://www.nopsema.gov.au/assets/Publications/Annual-offshore-performance-report-2013-web.pdf>

¹⁰ *Annual offshore performance report 2014*, National Offshore Petroleum Safety and Environmental Management Authority, May 2015, <http://www.nopsema.gov.au/assets/Publications/Annual-offshore-performance-report-2014-15-LR.pdf>

¹¹ PwC, *Value-adding, Australian Oil and Gas Industry*, Australia Petroleum Productions & Exploration Association, 2014, <http://www.appea.com.au/wp-content/uploads/2014/11/PwC-Report-Oil-and-Gas-Industry-Sept-2014-FINAL.pdf>

Table 2: The Economic Significance of the Australian Oil and Gas Industry 2014¹²

Item	Value
Oil and Gas exports (2013–2014)	\$29.231 billion AUD
LNG Production/Exports	46.4 million tonnes/\$16.745 billion AUD
Oil Production/ Exports	17.5 million tonnes/\$11.415 billion AUD
Offshore Exploration Expenditures	\$ 3.3 billion AUD
Investment in Oil and Gas Projects (including LNG) ¹³	\$ 200 billion AUD

4.3 Industry Safety Initiatives

While NOPSEMA is responsible for enforcing regulations, industry bodies have responsibility for improving occupational health and safety practices in the oil and gas industry. The Australian Petroleum Production and Exploration Association (APPEA) has led a number of initiatives to improve safety for offshore petroleum activities, including:

- + **The Common Safety Training program (CSTP).** An initiative by the Australian Oil and Gas CEO Safety Leadership Forum to provide safety awareness and preparation for those involved with the oil and gas industry. The CSTP uses an immersive training and hands on approach to establish safety behavioural skills and culture.
- + **The Safe Supervisor Competence Program (SSCP).** Introduced in 2012, SSCP was created to develop supervisory skills in critical safety roles. While many supervisors have competent technical skills, the program helps to reinforce safety and leadership abilities. The program is particularly directed towards contract worker supervisors who have to deal with high staff turnover and changes in working environments.
- + APPEA has also coordinated a number of safety specialist groups to share lessons and understand best practices and a working group to simplify safety case permissioning documents. These groups include the

¹² Office of the Chief Economist, *Resources and Energy Quarterly: March Quarter 2015*, Department of Industry and Science: Australian Federal Government, March 2015, <http://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/Documents/reg/REQ-March15.pdf>

¹³ Bureau of Resources and Energy Economics, *Resources and energy major projects*, April 2015, <http://www.industry.gov.au/industry/Office-of-the-Chief-Economist/Publications/Documents/rempe/REMP-April-2015.pdf>

HSO Committee, APPEA Drilling Steering Committee, Human Factors Subcommittee and the Safety Performance Reporting Subcommittee (this is equivalent to the UK Step Change program).

- + **Stand Together for Safety.** Oil and Gas Industry Leadership Initiative. This is a leadership steering committee, made up of oil and gas industry leaders, contractors, workforce representatives and regulators. This initiative was formed in March 2014 to increase industry-wide discussions on process safety.

4.4 Main Developments Impacting NOPSEMA Since 2011

Since its formation, NOPSEMA has undergone significant change to its scope of responsibilities as result of legislative changes to the OPGGS Act and associated legislation. The Table 3 below summarises the changes.

Table 3: Legislative Changes to the OPGGS Act 2006 and Associated Legislation

Legislative Developments
October 2011: <i>Offshore Petroleum and Greenhouse Gas Storage Amendment (National Regulator) Act 2011</i>
October 2011: <i>Offshore Petroleum and Greenhouse Gas Storage Regulatory Levies Amendment (2011 Measures No.2) Act 2011</i>
December 2011: <i>Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009</i>
March 2013: <i>Offshore Petroleum and Greenhouse Gas Storage Amendment (Compliance Measures) Act 2013</i>
May 2013: <i>The Offshore Petroleum and Greenhouse Gas Storage Amendment (Compliance Measures No.2) Act 2013</i>
November 2013: <i>Offshore Petroleum and Greenhouse Gas Storage (Environment) Amendment (Financial Assurance) Regulations 2014</i>
February 2014: <i>Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009</i>
October 2014: <i>Regulatory Powers (Standard Provisions) Act 2014 (the Regulatory Powers Act)</i> The new powers are further outlined in Section 5.5: Enforcement.

A complete table with the specific provisions from each Act or Regulation can be found at Annex F.

4.5 NOPSEMA Stakeholder Engagement Activities

While NOPSEMA is focused on ensuring industry compliance with the relevant regulations and standards, the organisation is also actively involved in providing education and guidance to the industry. NOPSEMA publishes, hosts and attends workshops in an effort to clarify legislation and documentation, and to alert industry to the findings of its investigations or present pertinent information on industry changes. This is further discussed in Section 5.4: The Transition from NOPSA to NOPSEMA.

Table 4: Summary of NOPSEMA's Stakeholder Engagement Activities

Engagement Activity	Activities in Financial Year 2012–2013	Activities in Financial Year 2013–2014	Activities in Financial Year 2014–2015 (to 31/12/2014)
Safety Alerts Published	4	2	2
Newsletters published (the Regulator)	6	6	3
Key Industry Conference presentations	13	4	4
Annual offshore performance report	1	1	-
Workshops (hosted/participated)	8	15	
Forums/Conferences (hosted/participated)	16	13	10
Briefings (given by NOPSEMA)	2	-	5
Annual Operator Management presentations (CEO)	8	7	-
Annual Operator Liaison presentations	20	17	-

5.0 EFFECTIVENESS OF NOPSEMA

The ToR #1 provided to the Panel regarding NOPSEMA's effectiveness in bringing about improvements were specifically linked to four key categories. These are:

- a. The occupational health and safety of persons engaged in offshore petroleum operations or offshore greenhouse gas storage operations.
- b. The structural integrity of facilities, wells and well-related equipment.
- c. Offshore petroleum environmental management including the effectiveness of the integration of environmental management into NOPSEMA's functions since 1 January 2012 (but not specific issues to be reviewed as part of the 2015 Review of the Environmental Streamlining Program).
- d. Offshore greenhouse gas storage environmental management.

Section 5 provides the Panel's view on NOPSEMA's overall effectiveness. Each of the terms above has been reviewed and the Panel's findings and recommendations are described in the following sections. The Panel found that NOPSEMA is acting as an effective regulator. The Panel's view on NOPSEMA's effectiveness as a regulator goes beyond the narrow frame of reference described in the Terms of Reference. As a result, Section 5 contains discussion on the effectiveness of NOPSEMA on matters described in the Terms of Reference as well as elements which the Panel believes are important in an effective regulator. The Panel reviewed NOPSEMA's activities and documents provided by NOPSEMA and conducted engagement with stakeholders. This included reviewing staff capability and current training, NOPSEMA's tools and techniques and its consistency in applying those tools.

5.1 Overall Effectiveness

5.1.1 Introduction and Background to NOPSEMA

Assessing the effectiveness of a health, safety and environment (HSE) regulator's performance is difficult. To what extent does an industry's performance reflect the effectiveness of the regulator? As well as an effective regulatory body, effective regulation requires elements of goal setting and prescription. Understandably, companies credit good performance with their own actions and not to the actions of a regulator. The Panel associates good HSE performance with the *absence* of events which injure people and the environment, or which have the potential to do so.

The offshore oil and gas industry is susceptible to events which have a low frequency of occurrence but very high consequences. These types of risks are referred to in Legislation as major accident events or major accident hazards. The tools and techniques used to prevent these sorts of events are often referred to as *process safety*

management. When dealing with relatively infrequent events, such as major accident events, the absence of an event over a long period of time may not provide an accurate indicator of the probability of an event occurring. These high consequence events include incidents at facilities, incidents arising from diminished well integrity and incidents which cause environmental damage.

By contrast with these relatively rare but disastrous events, the most common type of safety incident is one which normally only affects one or two people at a time. This category of safety incident is referred to as personal safety. Popular measures of safety include frequency rates and severity rates of accidents based on personal injury such as lost time injury frequency rate. This focusses on the consequence rather than the cause. However, stakeholders have control over the cause of incidents, whether those are minor health and safety issues such as trips and falls, minor or catastrophic loss of containment accidents or incidents causing pollution.

Regulation in Australia requires those that create the risks described above to manage and control the risks. This was stimulated by the Piper Alpha tragedy in the United Kingdom's North Sea in 1988. In seeking good regulatory outcomes, NOPSEMA both sets goals and enforces prescriptive legislation. Broadly, NOPSEMA's goal setting is to reduce to as low as is reasonably practicable the incidence and severity of compliance breaches that cause injury or death or which cause harm to the environment. As well as regulating offshore occupational health and safety, NOPSEMA has responsibility for the regulation of environment and well integrity.

It should be noted that major accident events are not defined within the environment regime. NOPSEMA has a responsibility to ensure that activities that potentially impact the environment are carried in a manner consistent with the principles of ecologically sustainable development. This is in combination with the requirements to reduce risk to as low as is reasonably practicable, and ensure that the impact and risks is at an acceptable level. However, the principles of the risk management to identify the risk, assess the impact, identify controls and mitigations apply equally to the safety, well integrity and environment areas.

As part of its mandate to regulate well integrity NOPSEMA has moved away from the prescriptive based Designated Authority directions, as set out in the *Schedule of Specific Requirements as to Offshore Petroleum Exploration and Production*. Part 5 of that schedule was replaced by Part 5, of the *Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011* (Cwth) (RMAR). The RMAR allows well activities to be, "conducted in a non-prescriptive and objective based manner, consistent with government policy to move to regulate offshore petroleum activities through objective based regulations".¹⁴

¹⁴ *Management of Offshore Well Operations Plans*, National Offshore Petroleum Safety and Environmental Management Authority, 2011.

Goal setting regulation can be said to take: “the form of requiring the stated objectives to be met...rather than prescribing that detailed measures are to be taken”.¹⁵ Goal setting specifies the outcomes but not how they are achieved. Objective based goal setting allows for greater input by those complying with regulations. Underpinning NOPSEMA's goal setting is a set of prescriptive legislation that includes detailed and mandatory regulations that prescribe specific solutions. Prescriptive regulation defines exactly how an activity will be undertaken. For example, how plant equipment will be operated. Failure to follow the prescribed method (e.g., what techniques to use, the required qualifications, where/when the function may be performed) equals non-compliance with the regulation. A combination of goal setting and prescription may seem contradictory. What is important is the balance a regulator finds between using each appropriately.

5.1.2 Personal Safety and Process Safety Metrics

Personal safety is typically reported by lagging measures of injury and/or death. The most common tools for this are lost time injury frequency rates, total recordable injury frequency rates, total recordable case frequency or days away from work cases. However, there is no correlation between a low personal injury rate and a low risk from major accident events. In other words, it cannot be assumed that a low lost time injury frequency rate equates to a low risk of a major accident event. In addition, even if lagging personal injury data is used only to assess the performance of industry in relation to personal safety, there are difficulties in comparing Australian performance with personal safety performance in other parts of the world and with data produced by other organisations. Finally, it should be noted that lagging personal safety metrics are not an accurate measure of occupational health issues as opposed to safety issues.¹⁶

Despite these difficulties, the Panel has attempted to assess the personal and process safety performance of the industry. The evidence available to the Panel both from submissions and industry performance metrics indicates that the offshore petroleum industry has a relatively good personal safety performance as measured by these lagging indicators. Both the number of total recordable injuries and lost time injuries have declined, even though the industry has seen a significant increase in the number of hours worked. The severity and frequency of recordable injuries or fatalities has declined steadily since NOPSEMA's (NOPSA) commencement in 2005 from a total recordable case frequency of 13.07 in 2005 to 4.04 in 2014.¹⁷ This is the lowest on record.

¹⁵ William Cullen, *The Public Inquiry in the Piper Alpha Disaster*, Her Majesty's Stationary Office, London, 1990.

¹⁶ Peter Wilkinson, *Progress on Process Safety Indicators - Necessary but Not Sufficient?*, US Chemical Safety and Hazard Investigation Board, Noetic Risk Solutions, 2012.

¹⁷ *Annual Offshore Performance Report 2014*, National Offshore Petroleum Safety and Environmental Management Authority, 2015, <http://www.nopsema.gov.au/assets/Publications/Annual-offshore-performance-report-2014-15-LR.pdf>

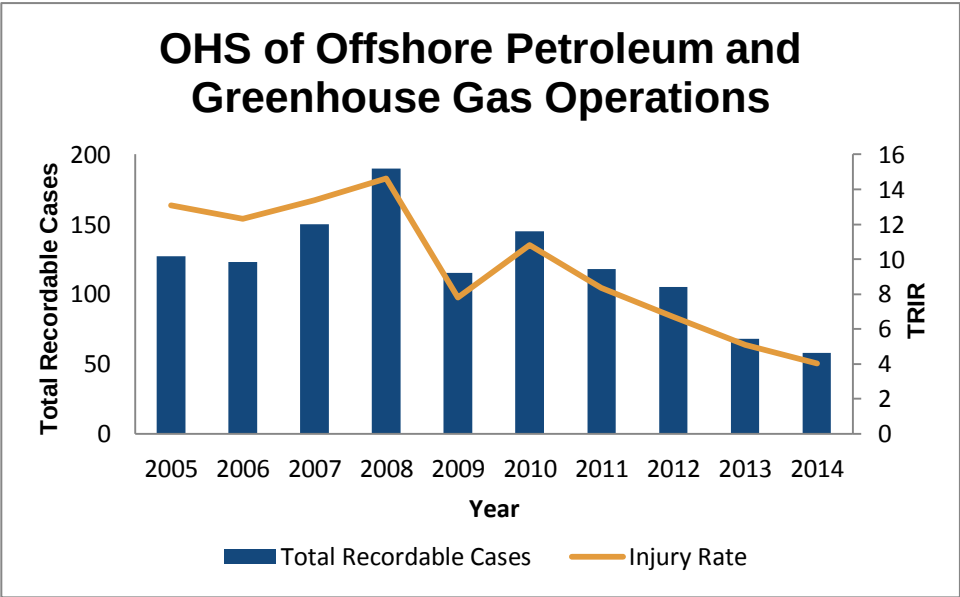


Figure 1: Occupational Health and Safety of Offshore and Petroleum Greenhouse Gas Operations

This trend highlights the work that has been done in improving the OHS outcomes for offshore oil and gas workers in Australia. The data for personal safety also compares well with other industries in Australia when compared with the national average serious injury rate of 6.7 (it should be noted that this rate does not include fatalities and is limited only to serious injuries which are defined by Safe Work Australia as causing one or more weeks away from work). More comparable industries would be construction and mining, which have serious injury rates of 8.4 and 4.9 respectively.¹⁸ However, when compared to the total recordable injuries rate for the United Kingdom, which has a comparable regulatory regime to Australia, the UK’s total recordable injuries rate of 2.54¹⁹ indicates a need for further improvement.

The Panel’s view is that NOPSEMA is effective in regulating personal safety, so far as the improving trend personal safety data can be taken as an indicator.

¹⁸ Key Work Health and Safety Statistics, Australia, 2015, Safe Work Australia, 2015, <http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/910/key-whs-stat-2015.pdf>

¹⁹ Safety Performance Indicators – 2013 Data, International Association of Oil & Gas Producers, 2014, <http://www.iogp.org/pubs/2013s.pdf>

5.1.3 Major Accident Event Focus

The industry's performance in preventing major accident events is much more difficult to assess, but important. One way of assessing process safety performance is to look at those events which precede a major accident event.

One example of this approach is to measure the numbers of losses of containment of hydrocarbons. Losses of containment refers to unintentional releases of hydrocarbons which could result in a fire, explosion and/or an environmental incident. Fewer losses of containment incidents would suggest that the risk of a major accident event is less. However, so far as the data allows there does not seem to be a discernible sustained reduction in the numbers of hydrocarbon releases and there is an upward trend in the reporting of damage to safety-critical equipment. APPEA reports that this is a global trend. Given the potentially high consequences in terms of safety and the environment impact of major accident events, this is of concern. The Panel believes this is an area which warrants further work.

One approach on which there is significant work around the world (including in Australia) relates to 'leading' indicators of potential major accident events. NOPSEMA collates and publishes a considerable amount of industry safety and environmental performance data. There is significant scope to analyse this information to identify performance improvement opportunities, and to share learnings with industry.

The Panel examined the extent to which NOPSEMA appropriately focuses on major accident event avoidance as an important determinant of NOPSEMA's effectiveness in both safety and environment regulation. NOPSEMA regulates the avoidance of major accident events using a variety of tools. For facilities such as production platforms and facilities, drilling rigs, pipelines and certain other types of facilities, the industry stakeholder must prepare a document which outlines how it plans to identify, manage and control the risks to safety, well integrity and the environment. These permissioning documents are variously called safety cases, environment plans, well operations management plans and pipeline management plans. Typically, NOPSEMA must accept (or approve) these documents before the industry stakeholder can undertake the activity. The NOPSEMA assessment of these documents typically leads to an improved demonstration that risk is being managed to as low as reasonably practicable before it is accepted. Once accepted, NOPSEMA carries out inspections to confirm that the industry stakeholder is effectively implementing the risk controls identified in the permissioning document.

The Panel examined a selection of routine documents (safety case assessments, well operation management plan assessments, facility inspection reports, the NOPSEMA Annual Report) as well as seeking the views of stakeholders to determine the extent to which NOPSEMA is appropriately focused on monitoring and compliance of major accident event avoidance.

The internal safety case assessment documents examined by the Panel all demonstrated a clear focus on major accident event avoidance, as well as an appropriate interest in personal safety. The same was true also for the facility inspection reports sighted. The Panel examined the Annual Report for 2013 and found that it lists the topic-based inspections NOPSEMA undertakes. Again, a strong focus on the prevention of major accident events was evident. Similarly, the subjects on which NOPSEMA has served Improvement Notices under the Enforcement Policy further supports the focus on prevention of major accident events.

Even so, the Corporate Plan would be improved by explicitly including major accident event avoidance as an objective. Given APPEA's comments, and these observations, the Panel concludes that NOPSEMA's role in regulating major accident events should be given greater prominence in its published material, including in the Corporate Plan.

Finding: NOPSEMA's operational practice is strongly focused on compliance with controls identified in safety cases and well operations management plans (WOMP) to minimise the risk of major accident events, and in environment plans to prevent impacts on sensitive environment receptors. The focus on major accident events has become clearer in recent NOPSEMA published material. There is an opportunity for NOPSEMA to provide leadership on process safety by making use of whole-of-sector data to identify trends in process safety. NOPSEMA can leverage its membership of the International Regulators Forum, and other sector engagement (i.e. conferences), to identify developing process safety practices and learnings, and communicate those to its stakeholders.

Recommendation 1: NOPSEMA should emphasise in its published documents the role it undertakes in the prevention of major accident events.

Recommendation 2: NOPSEMA should further analyse and publish trends based on data gathered on process safety to encourage greater emphasis on process safety, including major accident events.

Recommendation 3: NOPSEMA should consider developing or using lead indicators of major accident events performance such as those being developed by the International Association of Oil and Gas Producers (IOGP).²⁰

²⁰ <http://www.iogp.org/>

5.2 Organisational Capability

The effectiveness of a regulatory organisation is built in large measure on the capability of its personnel (including training and experience) and the tools and techniques they deploy. This section of the report discusses the capability of NOPSEMA personnel, the tools and techniques they use, including regulatory tools, the extent to which they work cooperatively and consultatively with those they regulate, and the consistency of NOPSEMA's actions.

5.2.1 Capability of Staff

Capability can refer to the operational capability of an organisation; for example, NOPSEMA has three core operational capabilities: safety, wells and environment. This taxonomy is reflected in the division breakdown of NOPSEMA. In a public service context, capability is often associated with the individual skills held by people in the organisation. The Panel's assessment of NOPSEMA's capability has focused on its staff and their skills.

Recent work undertaken by the Australian Public Service Commission (APSC) and the Australian National Audit Office (ANAO) has been focused toward building a framework for managing learning and development within the Australian Public Service.²¹ However, while the development of the capability of NOPSEMA's personnel largely aligns with the APSC/ANAO framework, those personnel undertake a very unique set of operational roles, requiring specific capabilities. It is these capabilities the Panel has focused on.

Judging the capability of the personnel in a regulatory organisation like NOPSEMA can be difficult. Regardless of the organisational empirical assessment of an individual's capability (i.e. NOPSEMA's assessment of its own personnel), stakeholders which engage with these personnel could have developed their own perception on capability levels. It is inevitable that these perceptions will be shaped by the experiences stakeholders have had with the regulator and the decisions that have impacted them, especially if those decisions were contrary to their views.

In the Panel's view, an effective regulator must be technically proficient in its industry and in the subjects it is required to regulate. Technical proficiency is essential, but a regulator must also be proficient in persuading those in its industry to reduce risks. This includes educating those with whom it comes into contact about the hazards, risks and control measures, and consulting and working with those affected by its regulatory 'footprint'. In addition it must make effective use of its regulatory powers.

²¹ Australian Public Service Commission, *Building Capability A framework for managing learning and development in the APS*, Australian National Audit Office, April 2003, http://www.apsc.gov.au/data/assets/pdf_file/0003/7257/capability.pdf

To assess capability, the Panel reviewed the technical background of inspectors, reviewed information on the training received by NOPSEMA personnel and canvassed the views of a variety of stakeholders. The Panel also interviewed a small number of senior NOPSEMA personnel, and reviewed some documentary material supplied by NOPSEMA concerning the training of staff.

Inevitably, the Panel’s conclusion is to an extent subjective, as it relies on the opinions of stakeholders including oil and gas companies, companies providing services to the industry, non-governmental organisations and trade unions.

The Panel has also commented on NOPSEMA’s flexibility in its workforce to source additional capabilities. This is discussed in Section 6.3.

5.2.2 Competency and Training

To support the Panel’s assessment of the competencies of NOPSEMA’s Environmental Inspectors, NOPSEMA provided information on its number of inspectors, their competencies and the level of competency. This is illustrated in Figure 2 below.

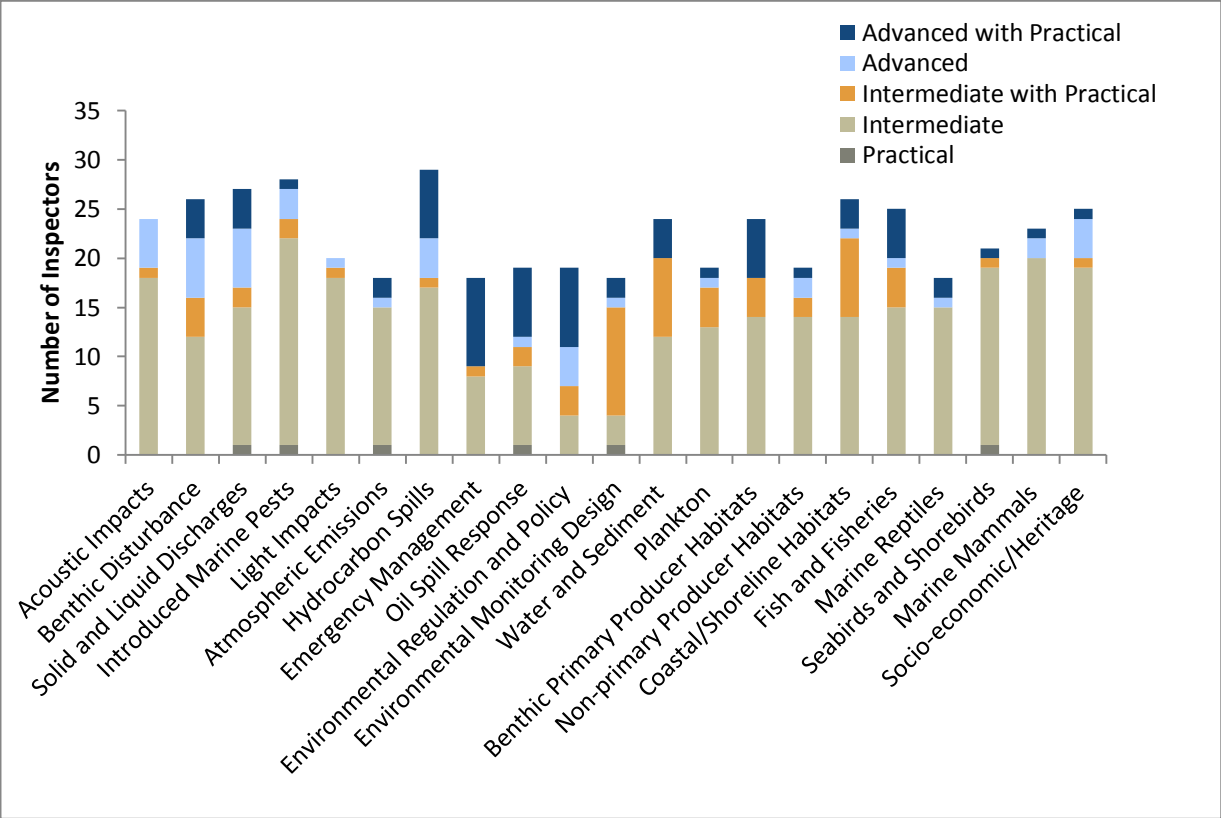


Figure 2: Environment Inspectors’ Areas and Levels of Expertise

Further to the above, the Panel reviewed the skills and competencies of NOPSEMA personnel in the context of ToR #3, with special attention paid to how NOPSEMA has addressed the challenges of new technology. The Panel was provided information about the knowledge, skills and experience of personnel in the context of floating liquefied natural gas. This information provided an additional and more detailed ‘window’ on the capabilities of NOPSEMA personnel more generally. It revealed that NOPSEMA safety inspectors have a rich mix of risk, marine and process engineering competencies, as well as operational experience. A picture of the overall level of experience of NOPSEMA safety inspectors is provided in Figure 3 below.

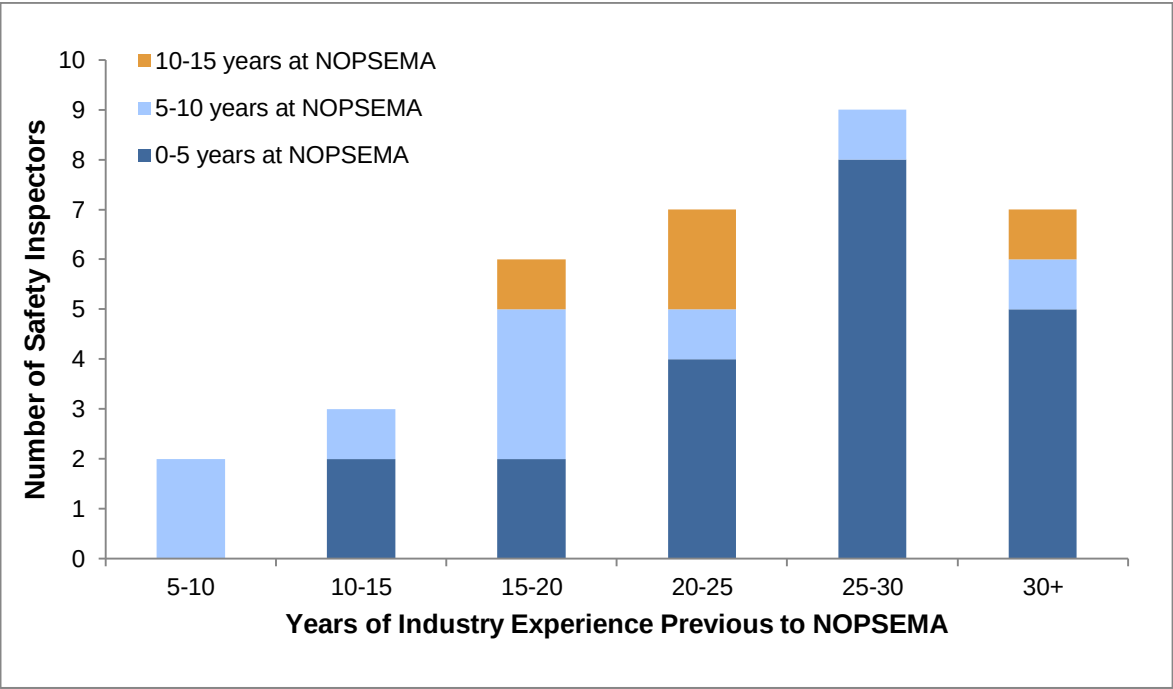


Figure 3: Experience of NOPSEMA Safety Inspectors

Taken with the broader competency information summarised in the Figure 2 and Figure 3 above, the Panel concludes that NOPSEMA’s personnel have the experience and knowledge expected of a regulator in the offshore oil and gas environment.

The Panel reviewed information on the training of NOPSEMA’s personnel. Training is provided by NOPSEMA in two ways: training for newly recruited personnel; and training for all staff in the period covered by this review. The training can be seen in Annex G.

One area for improvement is further training in influencing skills for staff with relevant roles and responsibilities for interfacing with stakeholders. This is discussed further in the following paragraphs and in Section 5.2.4 below.

5.2.3 Stakeholder Views on Capability

The Panel heard a wide variety of views from companies, trade unions, peak industry bodies and NGOs. These included positive comments from an operator about the robust challenges NOPSEMA inspectors provided; another commented on the outcome of well integrity inspections. “[The]...open dialogue approach has provided valuable interactions...and has delivered meaningful outcomes”. One operator commented favourably on both safety and environment inspectors. However, in the case of the latter there was a view that inspectors lack operational experience, being stronger on the science of environmental issues. One stakeholder said that inspectors lack knowledge in their sector of the industry. Other stakeholders commented that the experience of dealing with NOPSEMA depended on whom one had to interact with. This reflects a diverse set of views on NOPSEMA’s consistency.

The Panel heard that NOPSEMA personnel display a consistent approach to those they regulate. This was characterised by some stakeholders as an overly legalistic approach lacking in pragmatism. In the case of oil pollution emergency plans, the Panel is of the view that the consistently rigorous approach taken by NOPSEMA when responsibility for this area of regulation was transferred to NOPSEMA was both necessary and effective as it has led to tangible improvements. Conversely, the Panel heard how NOPSEMA deals with the issues presented by floating liquefied natural gas. It was reported to the Panel that there is a need to create a consistent approach to this issue. Stakeholders felt that this could be achieved by developing policy and processes that support early engagement with a company in advance of a formal safety case being submitted. In addition, this was supported by the change in the regulations to allow for an early engagement safety case in June 2010.

These examples represent a small sample of the diversity of opinions the Panel received. Given the variety of views, they are difficult to reconcile. However, after examining all the information available, the Panel’s view is that NOPSEMA has competent personnel and is an effective regulator. However, as one operator put it, “there were improvements needed in a number of areas”. These include technical areas, such as in the operational aspects of environmental matters; in drilling safety (but not in well engineering); and improving consistency. The Panel heard that the style and quality of NOPSEMA’s communications need to improve, both at an individual and organisational level. These areas for improvement are discussed in the next sections.

Finding: NOPSEMA has made significant improvements in its operational capability since the last review. The organisation has invested in the individual operational capability of its inspectors. NOPSEMA’s inspectors demonstrate a breadth of experience and depth of knowledge that is appropriate for their role. NOPSEMA has recognised that it may need to seek additional expertise outside the organisation, and collaborate with appropriately knowledgeable agencies or organisations.

Finding: There is an opportunity for NOPSEMA to invest in improving the communications capability of its personnel. This includes communications skills that could be seen as ‘softer’ skills, for example,

influencing and negotiating skills. Developing the communications capability of NOPSEMA personnel can directly contribute to NOPSEMA's ability to be seen as a competent regulator. This is an important part of the process of earning a social licence to regulate (as discussed in Section 8.5).

Recommendation 4: NOPSEMA should continue to invest in and improve the communications capability of its staff, with an emphasis on personnel who engage directly with stakeholders.

5.2.4 NOPSEMA Intra-Department Cooperation

As discussed earlier in this report (in Section 4.4: Main Developments Impacting NOPSEMA since 2011), NOPSA underwent a significant change in its scope of responsibilities following the Montara Commission of Inquiry in 2010 with inclusion of the wells/integrity responsibility in April 2011 and the subsequent inclusion of responsibilities for environment on 1 January 2012, when it became NOPSEMA.

The Panel understands that at an operational level, efficiency between NOPSEMA's divisions has been hampered by a lack of communication. The Panel understands that each of the divisions (Safety and Integrity, and Environment) has a strong focus on its own operation and meeting assessment timeframes. As noted in APPEA submission, NOPSEMA's timeframes for assessment and acceptance are reported on its website and they are within the accepted timeframes set out by regulations. There is however, more work that could be done to provide greater consistency across the inspectorate and to provide a more integrated approach where appropriate between these three key permissioning areas. NOPSEMA appears to be aware of the issue and is working to identify and improve the linkages between divisions. Improving intra-department cooperation is expected to result in productivity gains for NOPSEMA personnel and their stakeholders. For example, it could potentially decrease the regulatory burden for stakeholders that answer queries on the multiple permissioning documents they submit to the different divisions within NOPSEMA.

5.3 Tools and Techniques

5.3.1 Inspections

The Panel considered the frequency with which NOPSEMA carries out inspections of facilities. Inspections are an important activity to encourage compliance. However, they are only one part of the broader means by which NOPSEMA carries out its regulatory activities. Other important activities include assessing permissioning documents (discussed below) and examining (amongst other activities) the extent to which risk controls are monitored by senior managers in the Duty Holder's office. As part of the broader approach, inspections provide a way for industry to see NOPSEMA taking a proactive regulatory role.

NOPSEMA has advised the Panel of its existing policy and practice of visiting each manned production or drilling facility twice per year. Inspecting facilities is a vital regulatory activity and achieves more than simply checking how risk controls are applied in practice. It ensures that NOPSEMA has a visible presence, and is providing a visible deterrent to non-compliance. Inspectors demonstrate that NOPSEMA is conducting enforcement activities as well as providing an opportunity to engage the workforce. While the Panel has found that inspectors are effective, consultation with stakeholders identified some areas for improvement.

APPEA said that industry has had mixed experience in the depth and significance of NOPSEMA's inspections in terms of preventing major accident events. APPEA reported examples of too much focus on relatively trivial issues and inadequate in-depth challenging of the relevance and effectiveness of performance standards for critical barriers. However, other operators reported that the depth and significance was appropriate and that NOPSEMA provides appropriate challenge to the effectiveness of their standards. Overall, the Panel found that operators felt NOPSEMA is effective in how it carries out inspections. There was particular praise for the process by which NOPSEMA plans for and gives feedback from inspections.

It is recognised that NOPSEMA takes a pragmatic approach to topic based inspections on the risk profile of the Duty Holder and the Panel believe these are appropriate. However, comments from operators suggest that NOPSEMA could be more flexible in its approach. For example, NOPSEMA seek to reduce the number of facility inspections for Duty Holders who have a consistently appropriate risk profile. If appropriate, reducing the number of facility inspections will reduce the regulatory burden for both NOPSEMA and Duty Holders responsible for multiple facilities, whilst still ensuring Duty Holder's compliance with permissive documents. This is consistent with the findings in the ANAO 2011 report. We also heard NOPSEMA could consider joint safety and environment inspections where mutually agreed to be appropriate.

Finding: The Panel found that NOPSEMA takes a pragmatic approach to inspections but could be more flexible in increasing or decreasing the number of inspections in regard to the operators' risk profiles. More flexibility could contribute to NOPSEMA's ability to act effectively by facilitating a more efficient allocation of its resources. This would improve NOPSEMA's capacity to focus on high risk facilities.

5.3.2 A Consultative Approach

An important role for NOPSEMA, as set out in the 'Objects' section of the legislation, Schedule 3, which governs NOPSEMA's activities, is to support "...the development of a consultative relationship between all relevant persons concerning health, safety and welfare..."²² (The Panel notes that there does not seem to be an

²² *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (No 14)* (Cwlth) as amended taking into account amendments up to *Offshore Petroleum and Greenhouse Gas Storage Amendment (Miscellaneous Matters) Act 2015* (Cwlth), <https://www.comlaw.gov.au/Series/C2006A00014>

equivalent section in the Objects of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cwth), nor the *Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011* (Cwth).) Whilst the focus here is the effectiveness of NOPSEMA, the Panel notes that the development of a consultative approach requires all parties (not just NOPSEMA) to engage effectively. In turn, this requires good interpersonal skills.

An important element of an effective consultative relationship is the provision of effective advice on what constitutes the appropriate standards to be achieved. Put simply this is 'what good looks like'. As APPEA and others have pointed out, NOPSEMA has "...a unique whole of industry view..." of what is going on in health, safety and the environment (HSE) practices, enabling it to provide feedback on the standards being achieved in practice – to the benefit of the overall HSE system.

A key question is to what extent does the regulator have a role to play in promoting best practice through providing best practice education and guidance? The Panel believes that this is an essential role of an effective regulator in a goal setting legislative framework, a view shared by many stakeholders. By engaging with its stakeholders on safety matters, NOPSEMA becomes part of the ongoing safety debate, and has the opportunity to take a leading role in shaping that debate. Offering credible advice through education is one way that NOPSEMA can earn its social licence to regulate.

Industry believes NOPSEMA needs to play a larger part in promoting best practice. This was expressed by some stakeholders as an opportunity to provide greater leadership on HSE issues than is currently the case. As the APPEA written submission states, "there is far more NOPSEMA could do to apply the insights and learnings they gain from their overview of all of industries operation, and from their interactions with global regulators'. A number of other individual stakeholders made similar comments.

The Panel heard examples of how NOPSEMA is successfully approaching this consultative relationship. One example, at an industry-wide level, is provided by the workshop held on the subject of performance standards for safety critical elements in the drilling industry. We also heard examples of good consultative work by NOPSEMA in relation to individual companies. The method adopted for the development of the Guidelines for Financial Assurance was cited as a good approach. APPEA also commented on the continuous improvement in the timeliness and effectiveness of stakeholder consultation its members have seen.

However, the Panel heard repeated criticisms about insufficient information being forthcoming from NOPSEMA. For example, APPEA commented on the little information available on well integrity inspections. We also heard of insufficient use made of information assumed to be available to NOPSEMA as a result of its unique, pan-industry perspective. Furthermore, a number of stakeholders noted that NOPSEMA adopts an overly legalistic approach to regulation and communication. Stakeholders feel that NOPSEMA is not engaging adequately on establishing

guidance on what represents 'good practice' or changes to guidance (notwithstanding the exceptions discussed above). However, there is anecdotal evidence that this has been improving in 2015.

The Panel concludes that NOPSEMA does collaborate with others. The Panel also heard evidence that consultation and collaboration is an improving trend but that more could be done. Industry bodies believe this represents a missed opportunity for driving significant improvements by engaging across industry. The reasons for the variability in the apparent performance of NOPSEMA in relation to this topic are not clear. However, the Panel is aware of the significant change agenda NOPSEMA faced to integrate the environmental regulatory responsibilities in the period covered by the review, which is discussed elsewhere in this report. It is inevitable that the work to integrate these responsibilities and other changes will have occupied a significant amount of resources. This may have resulted in a less than optimum consultative approach, especially in the early stages of the integration.

One opportunity for better collaboration could be through joint industry/NOPSEMA workshops. Numerous stakeholders commented on the importance of NOPSEMA providing more timely sharing of lessons from serious incidents, particularly those that have the potential to contribute to major accident events and environmental risks; and working collaboratively to review guidance documents (and specifically operational documents as raised by the International Marine Contractors Association). The Panel supports this and recommends that these successes (and the reasons for these successes) are built upon in the future.

Finding: NOPSEMA has not always engaged as effectively as possible with industry stakeholders to develop practical guidance. However, NOPSEMA has demonstrated that it understands the importance of effective engagement, and has demonstrated that it is undertaking improvements in this area.

Recommendation 5: NOPSEMA should continue to identify and implement cost effective and tailored/targeted education activities that improve its capacity to engage with stakeholders in order to share lessons, provide guidance and share new information.

5.3.3 Consistency

A perceived lack of consistency in NOPSEMA's approach was raised by stakeholders throughout the Panel's review. Stakeholders from across the sector have advised the Panel that inconsistencies exist between individual inspectors from the Environment and Safety sections. The Panel received this feedback from operators, drillers and peak industry bodies, indicating a broad consensus that this is an issue for NOPSEMA to address. This appears to be a recurrent issue as similar findings were made in the 2011 review.

The Panel was made aware of broad industry agreement regarding the goal setting approach (supported by prescription in some areas) which underpins the regulatory regime. Goal setting explicitly requires Duty Holders

to identify and 'own' risks and the controls to reduce risks to a level as low as is reasonably practicable. For the most part there is no *one* way in which this has to be done. It is up to industry stakeholders to determine the most effective manner in which to reduce risk to as low as reasonably practicable in the knowledge that NOPSEMA inspectors can require Duty Holders to show how they are managing the risks.

The Panel was informed by NOPSEMA staff and stakeholders that there is consistency with the approval timelines for permissioning documents. The fact NOPSEMA consistently delivers within its statutory timelines is a positive reflection on the effectiveness of the organisation. In addition, the Panel understands to ensure consistency between the assessments of permissive documents, NOPSEMA has a regular internal peer review process for safety cases, WOMPs, and environment plans. However, the Panel heard from multiple stakeholders that although there have been inconsistencies between the assessments of permissive documents, this has improved.

NOPSEMA is aware of the need for consistency, and notwithstanding the challenges of achieving total consistency in a goal setting regime, seeks to undertake its activities in a consistent manner.

Finding: Comparable to the 2011 Triennial Operational Review of NOPSEMA, stakeholders consulted during this review have advised the Panel that inconsistencies exist between individual inspectors from the Environment and Safety sections.²³ The Panel understands that NOPSEMA is addressing these inconsistencies. NOPSEMA has established a regular internal peer review process for safety cases, WOMPs, and environment plans with the aim of ensuring greater consistency between permissive document assessments. NOPSEMA is currently meeting its statutory timeline obligations for permissioning documents. NOPSEMA appear to understand the importance of consistency, both from a process perspective, i.e. better consistency leads to better operational efficiencies, and through the lens of improving stakeholder perceptions. Notwithstanding the challenges of achieving total consistency in a goal setting regime, NOPSEMA is actively seeking to operate in a more consistent manner.

5.3.4 Reducing Regulatory Burden

NOPSEMA recognises the benefits of refining and streamlining regulations to improve performance and reduce the regulatory burden for industry. The Panel is aware that as part of the deregulation agenda initiated by the Department of the Prime Minister and Cabinet, the Department of Industry and Science conducted a Portfolio Regulation Audit. NOPSEMA contributed to this audit through the development of a Forward Work Program. This Program identified several potential opportunities to reduce compliance costs. These include:

²³ Chris Raper, Agu Kantsler and Robin Stewart Crompton, *Second Triennial Review of the Operational Effectiveness of the National Offshore Petroleum Safety Authority*, National Offshore Petroleum Safety and Environmental Management Authority, 2011, 3, <http://www.nopsema.gov.au/assets/Publications/Report-Second-Triennial-Review-of-NOPSA-text-and-submissions.pdf>

Table 5: Mechanisms to Reduce Regulatory Burden

Mechanism to Reduce Regulatory Burden	Description
Conferral	NOPSEMA will continue to work with the Department regarding the Government's pursuit of conferral of regulatory powers for safety, well integrity and environment management functions in state and territory designated coastal waters. A single national offshore petroleum and greenhouse gas storage regulator would reduce the overall regulatory burden on industry through consistent application of regulation. NB: Conferral is further discussed in Section 8.4
Upgrade of the Wells Regulations	NOPSEMA considers that the existing Wells Regulations lack sufficient clarity and dilute the Duty Holders duty to control well integrity hazards, resulting in a transfer of risk to the regulator. This situation contributes to poor quality well operations management plan submissions that undermine regulatory assurance. The proposal to amend these Wells Regulations include: + Adopting the principle of reducing risks to well integrity to 'As Low As Reasonably Practicable' (ALARP) as part of a new separate Object for the wells regulations, replacing 'good oil field practice' in relation to wells. + Introducing a notification regime, instead of specific well activity approvals. + Introducing a requirement to describe measures and arrangements that will be used to regain well control if there is a loss of well integrity. + Introducing a new standalone requirement to notify, report and record well-related reportable incidents. More information on the Wells Regulations is at Section 7.4.1 Currently the Department is working through the issues identified and finalising the policy responses. The key outcomes include: + Ensuring the remit of the regulatory regime now encompasses the entire life of a well, not just standalone well activities.

Mechanism to Reduce Regulatory Burden	Description
	+ Making the WOMP the sole permissioning document through which the Duty Holder is required to demonstrate how risks to well integrity will be controlled in an objectives-based regime. + Increasing consistency between the process for regulating well activities under the Wells Regulations and the processes set out in the Safety and Environment Regulations, where appropriate. + Allowing greater flexibility for industry on how it achieves compliance and ensure regulation can adapt to changing technology and innovation by maintaining an objectives-based approach to regulation.
Design Notification Scheme	An early stage concept review provides capacity for the regulator to encourage <i>'inherent safety in design'</i> sufficiently early to positively influence concept selection. The proposal would require the proponent of a production facility to submit design concept details to the regulator, and would replace the current voluntary early engagement safety case process. NOPSEMA notes that these particular amendments are likely to have a neutral impact on the day-to-day regulatory burden of proponents of offshore production facilities. The potential regulatory burden reduction associated with this policy reform opportunity should arise from the reduced risk of capital expenditure loss incurred by proponents who commit to design/construction of a production facility prior to the submission of a safety case. If the proponent has not engaged with the regulator at the design stage and the safety case is subsequently rejected due to design-related problems, the proponent may be faced with significant remedial costs or abandonment of the project.
Notification and Reporting	Opportunities currently being considered include the streamlining of occupational health and safety (OHS) and environmental incident notification and reporting, including online reporting.

5.4 The Transition from NOPSA to NOPSEMA

From 1 January 2012, NOPSA's role was expanded to include environmental regulation in Commonwealth waters and was renamed NOPSEMA. NOPSEMA is the sole regulator responsible for safety, environment and integrity (including wells) in Commonwealth waters as previously undertaken by State and Territory Designated Authorities.

NOPSA was under significant time pressure to prepare for the transition due to the late passing of the legislation. The text of the *Offshore Petroleum and Greenhouse Gas Storage Amendment (National Regulator) Bill 2011* was passed in both Houses in September 2011, leaving a three month window for NOPSA to officially prepare for the transition and in particular to recruit capable staff in the lead up to 1 January 2012. Resourcing the Environment group commenced in August 2011 five months prior to commencement of operations and staff numbers increased in the lead up to 1 January 2012. The legislation gave no flexibility for NOPSEMA to have a soft start with industry and NOPSEMA was expected to be ready to assess all environment plans as normally undertaken by Designated Authorities on 1 January 2012.

However, although the Bill was not passed until September 2011, NOPSA had the ability to plan for regulation of environmental management from the time that a formal policy decision was made to transfer regulatory responsibility from the Designated Authorities to NOPSEMA. The Department of Industry and Science closely consulted with NOPSA on development of the legislative and regulatory amendments in the months leading up to introduction and passage of the Bill.

Furthermore, transitional arrangements in the Environment Regulations provided for all environment plans that had previously been accepted by the Designated Authorities to continue in force after transfer of regulatory responsibility to NOPSEMA. NOPSEMA was responsible for immediately assessing any plans that had been submitted, but a decision not yet made, before commencement, and new plans submitted after commencement. There was no requirement for NOPSEMA to immediately assess, and seek revision of, plans that had previously been accepted by the Designated Authorities.

In the lead up to the establishment of NOPSEMA, NOPSA focused heavily on ensuring the organisation was internally prepared to undertake its additional environment management responsibilities by the 1 January 2012 deadline. NOPSA's quality management system allowed the additional environment responsibilities to be integrated into the system. Through the transition period and focus on organisational readiness, NOPSEMA underestimated the step change in regulatory compliance and impact on industry compared with previous requirements of the State and Territory Designated Authorities. Simultaneously, parts of industry did not anticipate the step change and were slow to respond to the need for increased compliance. NOPSEMA had increased scrutiny on environment plans, and thus industry stakeholders were critical of NOPSEMA's environment performance in the first 12 to 18 months.

Throughout 2012, NOPSEMA had in excess of 150 consultations with industry stakeholders on the new environmental regime, released a total of 8 guidelines and had 26 meetings over the review period 2012 – 2014. NOPSEMA held 565 Duty Holder liaison meetings. Industry felt this communication and engagement was ineffective as NOPSEMA had a “tendency to communicate from behind a wall of primarily legislative and at times highly confusing language.”²⁴ This disconnect was recognised by NOPSEMA, but the intervention was delayed and improvements were not seen until mid-2013. The industry perspective was that NOPSEMA itself was unclear on the requirements for compliance, and in addition provided incomplete and inconsistent assessment comments during 2012.

Finding: The Panel found a consensus exists with stakeholders that the transition to the new regime was challenging for both industry and NOPSEMA. An understanding now exists that the challenges that impeded effectiveness have largely been resolved or that NOPSEMA is working to address them. Communication between NOPSEMA and industry has steadily improved. The working relationship between industry and NOPSEMA on environmental matters has improved, with better clarity on the responsibilities of NOPSEMA and of industry. Both industry and NOPSEMA acknowledge that further improvement can be made. These are discussed in Section 8.3.1: The Regulated Entity – Industry.

5.4.1 Improvements Under NOPSEMA’s Regime

5.4.1.1 BACKGROUND

The initial implementation of the new environmental regulatory regime administered by NOPSEMA posed challenges for both NOPSEMA and its stakeholders. The Panel has heard the early stages of the implementation were constrained by ineffective communication between NOPSEMA and industry. However, this issue, along with others that arose during the early days of NOPSEMA, appear to have been largely resolved. NOPSEMA’s management of the new regulatory regime has been effective in bringing improvements to occupational health and safety (OHS) and to the environmental management of offshore petroleum activities. This section recognises improvements to both the safety and environment spaces that NOPSEMA has made over the course of this review, however, the Panel recognises some improvements still need further work to achieve their full potential.

5.4.1.2 ENVIRONMENT IMPROVEMENTS

This section outlines NOPSEMA’s environment improvements. However, all changes come with criticism, review and refinement. These include:

- + increased scrutiny on environment plans

²⁴ APPEA written submission.

- + publishing guidance for industry
- + improved sharing of information
- + improved oil spill preparedness.

Increased scrutiny of environment plan assessments. NOPSEMA has effected a positive change by increasing scrutiny of Duty Holders' proposed management of environmental impacts and risks. Duty Holder environment plans are assessed and tested to a strict interpretation of the regulations to determine if activities will reduce risk to ALARP. The Panel understands that from January 2012 environment plan assessments were more rigorous and consistent with a greater onus on the Duty Holders to demonstrate that the risk is reduced to ALARP. For example, NOPSEMA has placed greater scrutiny on assessments of impacts from discharge of produced formation water, i.e. environmental assessments must consider the full suite of contaminants from discharges, supported by in-situ testing to confirm predictions. Produced formation water management frameworks are now required for all production facility environment plans. If an environment plan does not reduce risks to a satisfactory level, or the evidence to support the case is inadequate, the titleholder must revise its submission to address the deficiency.

Publishing guidance for industry. NOPSEMA now publishes guidance on the content of environment plans and other technical areas to assist industry stakeholders. The Panel heard from a number of stakeholders that the guidance notes could be reviewed to contain clearer language and developed in conjunction with relevant stakeholders to achieve a common understanding of what is required. Despite this criticism, the Panel has heard examples of Duty Holders re-examining technical proposals, improving engineering and achieving better environmental outcomes.

Improved sharing of information. NOPSEMA has made information more readily available to potentially affected stakeholders by requiring a more extensive stakeholder/Duty Holder engagement. Examples include:

- + Guidance for stakeholder engagement has been published for both Duty Holders and other marine users, making access to information regarding petroleum activities more readily available to communities (e.g. Submission and Summaries web pages).
- + NOPSEMA has undertaken communication with stakeholders on specific emerging issues, with the environmental impact associated with acoustic discharges being one example. NOPSEMA has actively engaged Duty Holders to demonstrate risk reduction relating to acoustic discharges to ALARP levels.
- + NOPSEMA has advocated for greater understanding of existing scientific research and scientific collaboration in identified information gaps. Impacts have been reduced through specific controls including temporal/spatial avoidance or exclusions, reduction in array volume, the use of passive acoustic monitoring and aerial surveillance.

Stakeholders expressed concerns regarding the impact of seismic surveys on wildlife and that industry has been slow to adopt new, quieter technology. Industry participants have advised new seismic air gun technology is not yet developed to the point of field deployment. Once this technology is readily available commercially, then Duty Holders will be required to reduce risk to ALARP.

Improved Oil Spill Preparedness. Engagement with industry stakeholders has also had positive improvements on Australia's national capability to respond to oil spills. As a result of education delivered by NOPSEMA, Duty Holders better understand the severity and extent of impacts from oil spills, resulting in improved oil pollution emergency plans, (previously oil spill contingency plans), which must be accepted by NOPSEMA as a part of an environment plan prior to commencement of activities. There is also a greater clarity of the roles and responsibilities of NOPSEMA, industry and other government agencies for preventing and mitigating oil spills. NOPSEMA has actively collaborated with the Australian Marine Safety Authority (AMSA) on the *National Plan for Maritime Environmental Emergencies* (National Plan²⁵). This plan establishes responsibilities for each agency during oil spill response efforts. It is also aligned with the *Australian Government Coordination Arrangements for Maritime Environmental Emergencies*. This ensures better interfacing with other existing emergency incident response plans.

Working with NOPSEMA, the Australian Marine Oil Spill Centre (AMOSC) has established the First Response toolkit with a dedicated subsea dispersant stockpile. AMOSC has also established training courses to address identified industry capability gaps such as aerial surveillance and oiled wildlife response. These improvements will allow for more a more organised response, with a greater understanding of timeframes for implementing response plans and result from the centralised assessment process undertaken by a single regulator. Duty Holders must also demonstrate financial assurance to respond to an oil spill prior to the acceptance of an environment plan.

5.4.1.3 SAFETY AND WELL INTEGRITY IMPROVEMENTS

The transition from NOPSA to NOPSEMA saw a continuation of monitoring and inspection activities designed to improve offshore safety for people working in the offshore oil and gas sector. In the review period, NOPSEMA has undertaken a number of initiatives aimed at improving safety and well integrity outcomes and reducing the risks posed by a major accident events through education, guidance and enforcement activities by:

- + promoting and securing compliance with permissioning documents through monitoring, enforcement and engagement with stakeholders

²⁵ *National Plan for Maritime Environmental Emergencies*, Australian Maritime Safety Authority, March 2014, http://www.amsa.gov.au/forms-and-publications/publications/national_plan.pdf

- + assessing management plans
- + implementing risk base monitoring.

NOPSEMA has used the findings from its inspections to promote better safety practices throughout the sector. Deficiencies in the performance standards and major accident event controls identified through inspections are used to develop new guidance material, which is then disseminated to stakeholders. Findings from 2013/14 inspections have resulted in 70 recommendations and five improvement notices. Examples include joint workshops on performance standards with International Association of Drilling Contractors, improved assumptions for lifeboat weight limits; control of ignition sources, equipment performance standards, improvements associated with hyperbaric rescue craft manning, helicopter operations, use of American Petroleum Institute Standard 53 for blow out preventers and well control equipment, and improved fire and blast protection in well testing scenarios

Using lessons learnt from identified deficiencies is one example of NOPSEMA's efforts to encourage compliance through education prior to enforcement becoming necessary. NOPSEMA has also used focused topic-based inspection campaigns when it has identified contributing factors to major international incidents. The findings from the Montara Commission of Inquiry prompted NOPSEMA to provide guidance on the risks associated with having vessel facilities in proximity to hydrocarbon activities. Despite NOPSEMA making these improvements, industry stakeholders comment that NOPSEMA could do more to share findings from inspections to promote better safety practices, share lessons learnt, and develop clearer guidance material. This has been further discussed in Section 8.3.1: The Regulated Entity – Industry.

NOPSEMA has continued to strengthen its capacity to undertake OHS-related work and it is encouraging to identify that NOPSEMA has also focused on improving the management of safety and well integrity.

5.4.2 Initial Assessments of Environment Plans

The integration of environmental management was challenging for both industry and NOPSEMA (as previously discussed in Section 5.4: Transition from NOPSA to NOPSEMA). Throughout the review, the Panel heard that understanding NOPSEMA's requirements for environment plans is a major challenge for industry stakeholders. NOPSEMA relies heavily on the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Environment Regulations) to guide industry's response to environment plans. The regulations require Duty Holders to identify and address *all* environmental impacts and risks within an environment plan.

Thus high risk-low probability events are required to be assessed for potential impact on and risk to relevant receptors. In addition lower order impacts and risks also need to be identified and evaluated. Impact and risk management through identification of controls to reduce impacts and risks to acceptable levels and ALARP is also required. However, the degree of detail and effort required is able to be adjusted to reflect the nature and

scale of that impact or risk. When assessing a risk or an event, the probability and cause of the impact is to be assessed and the potential impact on receptors assessed. This is a well-established risk management approach: identify the risk, assess the impact, assess the probability and identify mitigation actions and controls. When identifying controls, the lower order impact and risks can more readily be addressed given fewer controls are required to reduce the impacts and risks to acceptable and ALARP.

Finding: Not all industry Duty Holders recognised the importance of *nature and scale* in the preparation of environment plans as they relate to lower order impacts and risks. Industry routinely puts disproportionate effort into preparing content on low to medium impacts and risks. The majority of NOPSEMA's assessment findings related to higher order impacts and risks and the inconsistent application of Duty Holders' risk assessment processes. NOPSEMA still requires lower order impacts and risks to have controls identified, however not to the same extent as higher risks. It may be more straightforward to demonstrate the risks are ALARP and at acceptable levels through use of relevant standards, for example the International Convention for the Prevention of Pollution from Ships (MARPOL),²⁶ for sewage.

Recommendation 6: NOPSEMA should review adequacy of guidance notes and improve communication of the assessment process to ensure industry understands the importance of *nature and scale* within the risk assessment process. NOPSEMA should also workshop actual examples of high risks, assessed impacts and agreed controls and mitigations to demonstrate how the process works in reality and best practices.

²⁶ International Convention for the Prevention of Pollution from Ships (MARPOL), International Maritime Organisation, [http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx)

5.5 Enforcement Process

5.5.1 Background

NOPSEMA aims to promote safe and environmentally responsible offshore petroleum and greenhouse gas industries. NOPSEMA's mission is to "independently and professionally regulate offshore safety, well integrity and environmental management".²⁷ It aims to achieve this mission by ensuring industry is effectively managing OHS, well integrity and environmental risks. It promotes industry compliance through monitoring and enforcement. This process is intended to provide assurance to communities and stakeholders that industry is meeting requirements and complying with legislation (the *Commonwealth OPGGS Act*, and the *Victorian Offshore Petroleum and Greenhouse Gas Storage Act 2010* (Vic) (Victorian OPGGS Act)).

NOPSEMA inspectors conduct inspections and investigations to investigate compliance with legislation, associated regulations and the respective permissioning documents. They also provide advice and guidance to industry to support risk management. NOPSEMA's powers and respective enforcement tools (shown in Table 6) enable inspectors to enforce compliance by compelling industry to undertake remedial action to rectify breaches. Inspectors can also undertake enforcement action by issuing notices or recommending prosecution. Inspector's powers include the right to enter and search a facility and other premises to locate documents that relate to a facility or operations. A warrant can be obtained if necessary.

It should be noted that for the most part NOPSEMA does not need to use its formal powers to ensure regulated entities comply with the law. Regulated entities mostly comply with the law knowing that inspectors scrutinise permissioning documents and respective obligations on routine scheduled inspections. NOPSEMA will take enforcement action in the case of a breach when it identifies non-compliance with obligations imposed by the OPGGS Act and associated legislation, or when it identifies the need for improvements in a Duty Holder's OHS, well integrity or environment management performance.²⁸ NOPSEMA has received graduated enforcing tools under the *Regulatory Powers (Standard Provisions) Act 2014* (Cwlth) (the Regulatory Powers Act) which came into operation 1 October 2014.

²⁷ *About us: Vision, Mission, Values*, Website of National Offshore Petroleum Safety and Environmental Management Authority, accessed 20 June 2015, <http://www.nopsema.gov.au/about/vision-mission-values/>

²⁸ *NOPSEMA Policy N-05000—PL0067 Revision 12, April 2015*, National Offshore Petroleum Safety and Environmental Management Authority, <http://www.nopsema.gov.au/assets/Policies/PL0067-Enforcement-Rev-12-April-2015.pdf>

5.5.2 The NOPSEMA Compliance and Enforcement Principles

NOPSEMA compliance monitoring and enforcement actions are guided by the enforcement strategy and principles described in the NOPSEMA Enforcement Policy, revised on the 12 April 2015.²⁹ The policy articulates an approach for enforcement through the transparent, efficient, and consistent use of powers. The policy directs enforcement activities so that they align with the objective of improving safety outcomes for the industry. NOPSEMA achieves this by:

- + active engagement with industry and other stakeholders to provide guidance on means of compliance with the legislation
- + assessing risks posed by non-compliance
- + addressing risks posed by non-compliance, in a fair and consistent manner, and in proportion to the offence or non-compliance.

NOPSEMA ensures Duty Holders meet legislative requirements by being:

- + outcome focused
 - + proportional and responsive
 - + informed
 - + transparent and consultative
- + consistent
 - + targeted
 - + subject to probity
 - + aligned with the principles of ‘due process’ and ‘natural justice’.

5.5.3 Current Enforcement Tools

The Table 6 overleaf summarises NOPSEMA’s current suite of enforcement tools.

Table 6: NOPSEMA Enforcement Tools

Enforcement Tool	Exercisable Body	OPGGS Act
Power to take possession of plant and samples	NOPSEMA Inspector	Yes
Do not disturb notices	NOPSEMA Inspector	Yes

²⁹ Ibid.

Enforcement Tool	Exercisable Body	OPGGS Act
Prohibition notices	NOPSEMA Inspector	Yes
Improvement notices	NOPSEMA Inspector	Yes
Directions	NOPSEMA	Yes
Request to revise a permissioning document	NOPSEMA	Regulations in support of OPGGS Act
Withdrawal of acceptance of a permissioning document (including safety cases, diving safety management systems, well operations management plans, and environment plans)	NOPSEMA	Regulations in support of the OPGGS Act
Infringement notices	NOPSEMA – CEO or Inspector	Yes
Injunctions*	Court	Yes
Prosecution	Court	Yes
Civil penalties	Court	Yes
Adverse publicity orders*	Court	Yes

* Additional enforcement tools NOPSEMA gained under the *Offshore Petroleum and Greenhouse Gas Storage Amendment (Compliance Measures) Act 2013* and commenced on the date which the *Regulatory Powers (Standard Provisions) Act 2014* (Cwlth) (the Regulatory Powers Act) came into operation 1 October 2014.

5.5.4 Enforcement Actions in 2012–2014

Figure 4 below depicts the number of enforcement actions used by NOPSEMA between 2012 and 2014. Under NOPSA, enforcement actions were in relation to OHS violations only, until 2011 when NOPSA gained oversight of well integrity. Unfortunately the data for that year does not differentiate between enforcement related to well integrity and to OHS. Enforcement of Environmental Regulations came under the remit of NOPSEMA in 2012.

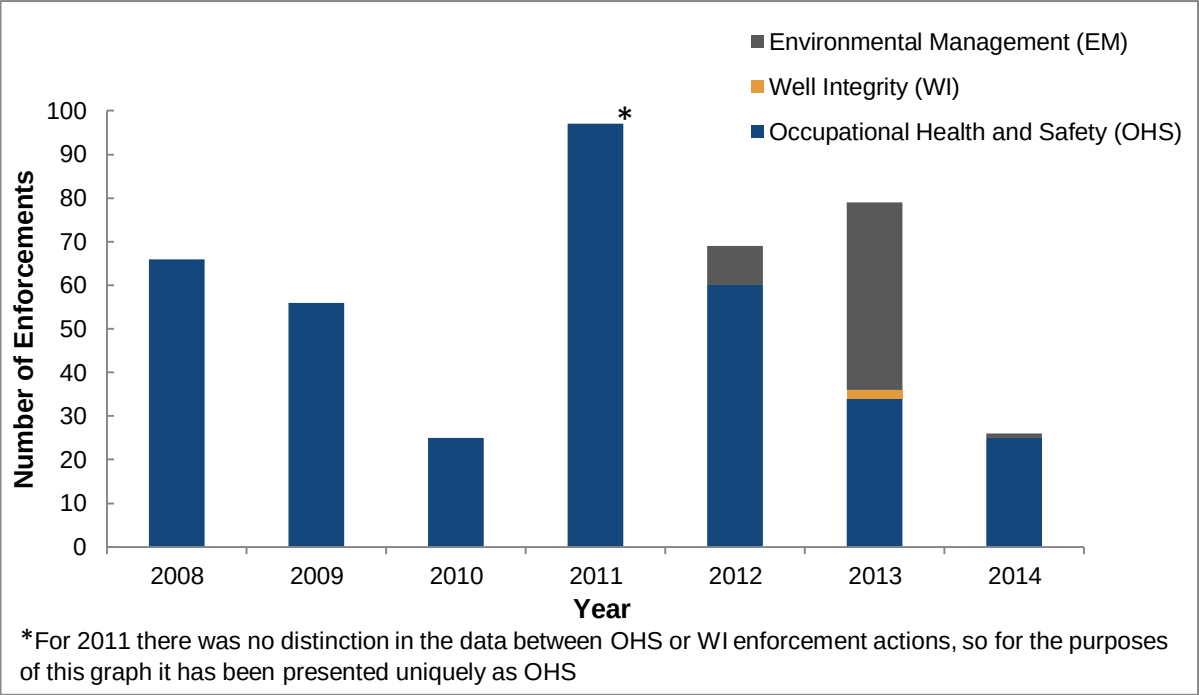


Figure 4: Enforcement Actions by NOPSA (2008–2011) and NOPSEMA (2012–2014)

Figure 4 does not indicate any general trends in enforcement, but does show a significant drop in enforcement related to environmental matters in 2014. The type of enforcements used by NOPSEMA can be seen in Table 7, overleaf.

Table 7: NOPSEMA Enforcement Actions 2012 - 2014

	2012	2013	2014
Prosecution Brief	0	1	2
Prohibition Notice	1	3	4
Improvement Notice	49	27	13
Written Advice	14	13	7
Request for a Revised Safety Case	1	2	0
Request for a Revised Environment Plan	4	32	0
Intent to Withdraw Environment Plans Acceptance	0	1	0
Intent to Withdraw Well Operations Management Plan Acceptance	0	1	0

NOPSEMA tailors the use of enforcement to suit the circumstances and varies from year to year. Of the 25 OHS enforcements in 2014 there were 2 prosecution briefs, 4 prohibition notices, 13 improvement notices, and 7 written advice or warnings (9 related to floating production storage and offloading facility, 9 to vessels, 6 to mobile offshore drilling units (MODU), and 1 to a fixed platform.) NOPSEMA also investigated 46 dangerous occurrences in 2012 and 2013, which were pursued by 79 Prohibition Notices and Improvement Notices.

The single largest contributor to the total number of enforcements in 2013 was environment plan revisions. While there were 32 enforcements for environment plan revisions in 2013, there were none for 2014. This reflects NOPSEMA's efforts with industry to clarify the environment plan approval process through workshops and improved briefing documents from the middle of 2013 onwards.

There was broad stakeholder agreement that the current enforcement protocols are operating efficiently and provide NOPSEMA with appropriate avenues for enforcing compliance. Stakeholder views remain largely unchanged from the 2011 review, with NOPSEMA generally regarded as professional, constructive and competent in promoting and securing compliance. Beyond this general agreement, NOPSEMA was subject to some critical feedback. The ACTU, for example, perceives that "NOPSEMA fails to use the full suite of regulatory

tools at its disposal”,³⁰ and suggests that NOPSEMA should consider using a wider range of regulatory tools, such as Improvement Notices, official warnings, enforceable undertakings, random audits and educational campaigns. This is not supported by the above Table 7 indicating the wide range of enforcement and education undertaken by NOPSEMA in past 3 years and 14 Duty Holders receiving an enforcement notice in 2014³¹.

5.5.5 Prosecutions

The view of the Panel is that NOPSEMA has an adequate set of enforcement tools and policy guidance and is selecting the most effective and appropriate enforcement tools for the circumstances.

The Panel understands when the decision to make a prosecution occurs, the incident must pass the ‘public interest test’ for the Commonwealth Director of Public Prosecutions to take on the prosecution. This asks whether a prosecution is in the interests of the community and whether it is worth allocating additional workload to the prosecution system and government resources as opposed to undertaking alternative enforcement action. An example of an alternative enforcement action is the issuing and publishing of a prohibition notice on NOPSEMA’s website, as has been done since October 2014 (at the time of this report there were seven notices online).

In 2014 there were two prosecution briefs relating to:

- + The death of two offshore workers in August 2012 during drilling operations on the Stena Clyde mobile offshore drilling unit.
- + A diving incident in 2011 relating to the import and supply of a high pressure underwater spray gun. This led to the successful prosecution of Technip Oceania Pty Ltd in July 2014 and an ongoing case against the equipment manufacturer, Hammelmann Australia Pty Ltd.

In August 2012 the prosecution of PTTEP Australasia relating to the 2009 Montara incident was completed.

The Panel understands industry is responding promptly to deadlines associated with improvement or prohibition notices. In large part this is due to the adverse commercial impact on companies when required to mitigate safety breaches. NOPSEMA is appropriately flexible in allowing time extensions on improvement notices, if the circumstances for a time extension are reasonable, beyond control of the operator and the risk is tolerable (for example, delays to equipment delivery or installation and commissioning delays).

³⁰ ACTU written submission.

³¹ *Annual offshore performance report 2014*, National Offshore Petroleum Safety and Environmental Management Authority, May 2015, <http://www.nopsema.gov.au/assets/Publications/Annual-offshore-performance-report-2014-15-LR.pdf>

5.5.6 Enforcement vs Education

The Panel supports the idea put forward in the APPEA's submission, which recognises the importance of transparency in regulatory information sharing. Information sharing has an important role in education and can be a valuable mechanism to encourage industry improvement.

NOPSEMA is currently producing and disseminating a range of regulatory and compliance information. This includes making improvement and prohibition notices available online. Education materials (guidance notes, notices etc.) are important tools which enable communication and transparency between NOPSEMA and industry on serious issues and risks. NOPSEMA has made improvements in the way that it facilitates communication and how it highlights areas of concern that may have broader application to Duty Holders and industry generally.

Enforcement notices are important tools for NOPSEMA to ensure compliance with legislation and permissioning documents. While prohibition notices are used as a serious enforcement tool, improvement notices should be seen as 'education tools as much as enforcement tools, and generally retain the outcome focus on the regulatory regime'. Stakeholders identified the need to balance education and enforcement as essential in bringing about industry improvements in the most effective way. In the past NOPSEMA has placed an emphasis on the legislation and its independence as a regulator. Engagement that focuses on initial education and support is critical to ensuring that stakeholders can meet their regulatory obligations, and avoid inadvertent non-compliance before enforcement actions become necessary.

The Panel is aware that NOPSEMA currently publishes a range of educative material on its website including, but not limited to, advice on legislation and regulations, safety and well inspection information and NOPSEMA's role in environmental management, including key policies, guidance notes and guidelines. While NOPSEMA appears to be providing sufficient online material, some stakeholders felt that there was a missed opportunity for more face-to-face education. They felt that sharing information on changes in regulations, improvements in safety or environmental management through small forums would present an opportunity to identify issues and facilitate collaborative development of solutions. As outlined in Section 4.5, NOPSEMA conducted a range of stakeholder engagements between 2012 and 2014. These comprised over 20 workshops (hosted or participated), 29 forums/conferences (hosted/participated), and a range of briefings including those undertaken by the CEO. This suggests that NOPSEMA understands the value of engagement through a number of forum types.

Findings: The Panel found NOPSEMA has an adequate set of enforcement tools available, and appears to be using those tools appropriately. The additional enforcement tools legislated in October 2014 are noted in the Table 6: NOPSEMA's Enforcement Tools. NOPSEMA has used a balanced approach to regulation using both enforcement and education. The Panel believes that NOPSEMA should take additional educational initiatives specifically to improve industry performance. The Panel recognises that education activities are resource intensive. Increasing the amount of compliance-related education will require

NOPSEMA to work effectivity within its current budget and identify the most cost effective education activities, for example, sharing industry-wide improvements in forums such as workshops.

Recommendation: As per Recommendation 5, NOPSEMA should continue to identify and implement cost effective and tailored/targeted education activities that improve its capacity to engage with stakeholders in order to share lessons, provide guidance and share new information.

5.6 Regulation Review

5.6.1 Petroleum Activity

All petroleum exploration and production activities undertaken offshore must have permits and licences that comply with the Environmental Regulations. They are required to prepare, and have 'accepted' an environment plan for all 'petroleum activities', as defined in the Environmental Regulations (*OPGGS (Environment) Regulations 2009*). Petroleum Activity means,

*'any operations or works in an offshore area carried out for the purpose of: (a) exercising a right conferred on a petroleum Titleholder under the Act by a petroleum title; or (b) discharging an obligation imposed on a petroleum Titleholder by the Act or a legislative instrument under the Act.'*³²

The effect of this is to require an environment plan (in which a subset is an oil pollution emergency plan) for vessels for which a number of stakeholders (both Titleholders and seismic companies) did not consider pose a significant pollution risk. The net result is an unnecessary and burdensome requirement to develop oil pollution emergency plans for low risk vessels, including seismic, geotechnical and geophysical vessels. It should be noted that these stakeholders were not suggesting that seismic activities should be excluded, rather that the seismic vessels themselves did not warrant separate oil pollution emergency plans as they were already covered by existing marine oil spill prevention legislation, and the National Plan. The Panel understands the definition of petroleum activity was reviewed during the streamlining of the Environment Regulations. However the Panel's consultations indicate a clear lack of clarity amongst stakeholders regarding activities that require an environment plan (and an oil pollution emergency plan).

³² *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (Cwlth.) (No. 228) Regulations as amended, up to *Offshore Petroleum and Greenhouse Gas Storage (Environment) Amendment (Financial Assurance) Regulation 2014*, <https://www.comlaw.gov.au/Details/F2015C00069>

Recommendation 7: NOPSEMA should review relevant guidelines in conjunction with relevant stakeholders (e.g. APPEA) to clarify the activities which require environment plans and oil pollution environment plans.

5.6.2 Assessments of Greenhouse Gas Storage Activities

The first ToR includes a review of the 'effectiveness of bringing about improvements in offshore greenhouse gas environmental management'. NOPSEMA has completed three assessments for seismic survey activities undertaken by Geoscience Australia since 2013. These assessments were carried out under temporary arrangements via delegation of authority from the Minister for Industry and Science. However, the remainder of legislation and provisions for compliance and enforcement functions and powers has not been implemented.

Finding: The Panel noted that NOPSEMA has conducted a limited number of assessments of greenhouse gas storage seismic survey activities through delegation of authority from the Minister. To enable NOPSEMA to routinely carry out these functions in the future, the Panel believes that the Department of Industry and Science ('the Department') should give further consideration to the scope of NOPSEMA powers with respect to greenhouse gas storage operations.

Recommendation 8: The Department of Industry and Science should continue to review the scope of powers and authority that NOPSEMA requires for regulating activities associated with greenhouse gas storage.

5.7 Conclusion on the Effectiveness of NOPSEMA

It is the Panel's view that NOPSEMA is demonstrating the characteristics of an effective regulator. After the transition from NOPSA to NOPSEMA, the organisation has continued to make a positive impact on occupational health and safety for persons engaged in offshore petroleum operations or offshore greenhouse gas storage operations. While not definitive, the decline in the number of total recordable injuries and lost time injuries point to NOPSEMA's effectiveness in encouraging and enforcing compliance. With regard to major accident events, NOPSEMA continues to undertake effective inspections of facilities with a view to monitoring the controls in place to reduce the risk of major accidents.

NOPSEMA has effectively managed the well integrity responsibilities during the review period which have led to improved performance in a number of areas relating to well testing, blow out preventers and performance standards.

NOPSEMA's effectiveness as an environmental regulator has been largely assessed through the improvements made since the transition from NOPSA to NOPSEMA. Assessment of environmental plans has improved, with a greater duty on Duty Holders to demonstrate that the risk is reduced to ALARP. NOPSEMA is providing better guidance to stakeholders on environmental compliance, part of an overall improvement in the way that

NOPSEMA engages with its stakeholders. The Panel believes that NOPSEMA is aware of, and proactively working to resolve, the key areas where improvement opportunities have been identified.

6.0 CORPORATE GOVERNANCE

This section of the report provides an overview of NOPSEMA's governance arrangements in the context of its expanded functions and the requirements of the *Public Governance, Performance and Accountability Act 2013* (Cwlth) (PGPA Act), which took effect from July 2014.

6.1 Background to the PGPA Act

The PGPA Act is part of the public management reform agenda that has modernised the Australian Government's financial framework. This Act aims to support high quality resource management and future performance. The PGPA Act was initiated by the Department of Finance in place of the *Financial Management and Accountability Act 1997* (Cwlth) and the *Commonwealth Authorities and Companies Act 1997* (Cwlth).

Under the PGPA Act, NOPSEMA became a corporate Commonwealth entity in which NOPSEMA's CEO is the Accountable Authority. The Accountable Authority is the person responsible for, and with control over, the entity's operations and ensuring compliance with the PGPA Act. The Accountable Authority has a number of responsibilities, duties and obligations including promoting high standards of accountability and performance.³³ This includes:

- + **Governance.** Reporting and accountability of a Commonwealth entity and its use and management of public resources.
- + **Corporate Risk Management.** Establishing and maintaining systems relating to risk and control, encouraging cooperation with others, managing administrative requirements imposed on other parties, and keeping relevant ministers informed.
- + **Financial Management.** This includes the management of the entity's budget and compliance with reporting requirements.

The PGPA Act supports the efficient, effective, economical and ethical use of public resources at entity level and across the Commonwealth generally. In particular, four guiding principles are encompassed within the PGPA Act:

- + government agencies should operate as a whole
- + a standardised set of functions to ensure consistency in the handling of resources between government entities

³³ *Resource Management Guide No. 200: General Duties of Accountable Authorities*, Department of Finance: Australian Federal Government, 2014, <http://www.finance.gov.au/sites/default/files/RMG-200-General-duties-of-accountable-authorities.pdf>

- + performance of the public sector is more than financial
- + engaging with risk is a necessary step in improving performance

This section first discusses the effectiveness of NOPSEMA's overall governance arrangements. It then discusses NOPSEMA's compliance with the PGPA Act in three sections, namely Governance, Financial Management and Corporate Risk Management.

6.2 Governance in relation to the PGPA Act

Under the PGPA Act, NOPSEMA is to comply with governance, reporting and accountability of the use of public resources and management. Section 15(1) requires the Accountable Authority to promote the:

- + proper use and management of public resources
- + achievement of the entity's purposes, NOPSEMA's being to "independently and professionally regulate offshore safety, well integrity and environmental management"
- + financial sustainability of the entity

6.2.1 The NOPSEMA Corporate Structure

Governance of an organisation stems directly from its corporate structure. The most appropriate corporate structure is unique to the purpose of the organisation. An effective corporate structure should include a cohesive and effective leadership team, facilitate decision making through appropriate roles and accountabilities, and have the capacity to change and continuously evolve.

The Panel found NOPSEMA underwent internal structural changes with the integration of well integrity in 2011. The integrating of environmental management in 2012 saw further large scale organisational changes. These included changes to management reporting arrangements to ensure that internal policies and procedures were consistently implemented. These changes were challenging for both industry and NOPSEMA (further discussed in Section 5.4: The Transition from NOPSA to NOPSEMA). However, the Panel has received consistently positive support for a single regulator for safety, environment and wells. It is worth noting that previous reviews of NOPSEMA (including independent audits of NOPSEMA's compliance with the PGPA Act conducted by the ANAO and PwC) found compliance with the PGPA Act was good.

Since March 2014, NOPSEMA has undertaken further internal restructuring intended to balance operational and corporate functions; this new structure is at Figure 5: NOPSEMA Organisational Chart below. This includes establishing the major investigations branch for enforcements as well as new committees described below.

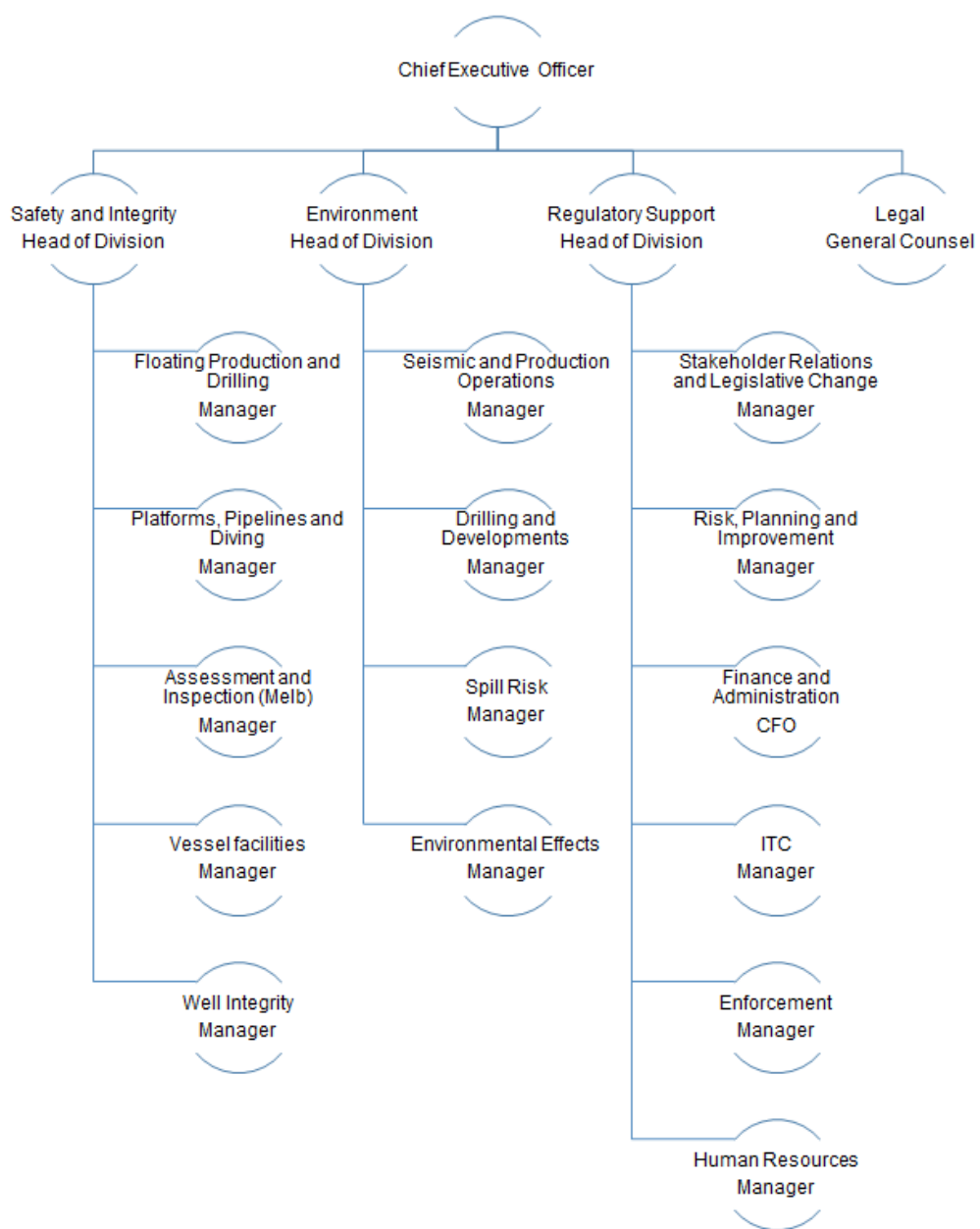


Figure 5: NOPSEMA Organisational Chart

The NOPSEMA committees include the:

- + **NOPSEMA Leadership Team (NLT).** The NOPSEMA Leadership Team consists of the NOPSEMA CEO, Division Heads and General Counsel. This committee meets monthly to consider strategic issues affecting NOPSEMA (including agency performance, priorities and planning approach to Regulator Performance Framework (RPF)). The NOPSEMA Leadership Team also approves new projects that require large investments.
- + **Corporate Support Committee (CSC).** The CSC considers operational and transactional corporate support issues, including monitoring performance of projects approved by NOPSEMA Leadership Team (NLT) and reporting to NLT where appropriate.
- + **Compliance Committee.** The Compliance Committee meets fortnightly to review data on regulatory performance and priorities, all compliance actions taken (including education/liaison/speaking engagements, enforcement actions taken) and to oversee enforcement actions on more serious matters.

The existing committees comprise:

- + **Audit Committee.** Established by the Accountable Authority (in this case, the NOPSEMA CEO), the Audit Committee provides independent assurance and advice to the Accountable Authority on NOPSEMA's internal control mechanisms, financial and business risks, and compliance with its statutory obligations under the PGPA Act, PGPA Rules and Finance Minister's Orders. The Audit Committee also provides a forum for communication between senior management and internal and external auditors. More details on the Audit Committee can be found in Section 6.2: Corporate Risk Management.
- + **Risk Committee.** Established by the Accountable Authority to assist with carrying out of duties and statutory obligations under the PGPA Act related to the establishment and maintenance of systems relating to risk and control. The Risk Committee provides assurance and advice to the Chief Executive Officer and advises the Audit Committee on NOPSEMA's internal control mechanisms, fraud, financial and business risks, and compliance with its statutory obligations under the PGPA Act and Rules. The committee members have appropriate levels of expertise and public sector experience with regards to financial reporting, governance and strategic risk management.
- + **Crisis Management Committee.** Responsible for the Crisis Management Plan. The plan has been developed to respond to a suite of potential risk situations as identified in NOPSEMA's annual risk review. This includes overseeing the three phases of the plan: activation, operation, and demobilisation.

As a public entity NOPSEMA must fulfil its other obligations under the PGPA Act. This includes regular reporting to the Minister of Industry and Science and the Finance Minister. This arrangement is designed to ensure oversight of the governance arrangements are visible to the Commonwealth. NOPSEMA regularly reports information and relevant documents to the ministers, including information on current activities and proposed changes to the organisation. The Panel has sighted numerous internal documents provided by NOPSEMA and is

satisfied that regular reporting to the ministers occurs, and that NOPSEMA is in compliance with the obligations required by the PGPA Act.

6.2.2 Cooperation and Risks Associated With Other Commonwealth Entities

NOPSEMA collaborates with a number of government organisations such as NOPTA and AMSA in its day-to-day workings. The PGPA Act recognises collaboration of government agencies and that corporate risks can impact multiple agencies. In the context of promoting proper use and management of public resources, NOPSEMA must assess not only its internal risk, but take into account the effect of its decisions on public resources generally. In addition, NOPSEMA must encourage “officials of the entity to cooperate with others to achieve common objectives”.³⁴

As described in this report (Section 5.2.1: Capability of Staff and Section 8.0: Stakeholder Engagement), the Panel understands that NOPSEMA has improved its capability and capacity to engage with appropriate stakeholders. This includes the entities impacted by NOPSEMA’s operations.

6.2.3 Sharing of Information

Sharing information across agencies is complicated by technology and by pre-existing arrangements, including relevant legislation. These complexities have impacted NOPSEMA’s ability to share information. Section 82 of the PGPA Act enables the making of rules for sharing of information between Commonwealth bodies and state and territory ministers. However, there are remaining prohibitions for sharing of certain data under the OPGGS Act that have to be adhered to. Non-government entities are restricted to requests for information through the *Freedom of Information Act 1982* (Cwlth) (FOI Act).³⁵ To assist with public access to information, NOPSEMA has a FOI coordinator and a FOI disclosure log on its website.³⁶ The Panel understands that when commercial-in-confidence material is requested, NOPSEMA contacts all relevant stakeholders whose interests may be affected by a decision to release information prior to publication.

6.2.4 Quality Management System and Regulatory Management System

NOPSEMA has developed an efficient and reliable quality management system (QMS) and regulatory management system (RMS). The Panel has sighted many of NOPSEMA’s internal documents and is of the view that the QMS and RMS are appropriate. The baseline NOPSA QMS has been updated and revised to account for

³⁴ *Ibid.*

³⁵ *Freedom of Information Act 1982* (Cwlth), Office of the Australian Information Commissioner: Australian Federal Government, <http://www.oaic.gov.au/freedom-of-information/freedom-of-information-act/the-freedom-of-information-act>

³⁶ *FOI Disclosure Log*, Website of National Offshore Petroleum Safety and Environmental Management Authority, 2015. Accessed 20 June 2015, <http://www.nopsema.gov.au/resources/foi/disclosure-log/>

the integration of the well integrity responsibilities in 2011 and the subsequent integration of environmental responsibilities in 2012. The Panel believes the relative ease of integration of these two regulatory responsibilities is a reflection of the effectiveness of the management system. Improvements to the management system are managed via a suggestion scheme available to all staff. A committee reviews the improvement suggestions regularly.

Findings: The Panel found that NOPSEMA demonstrates an effective internal governance structure with appropriate policies and procedures. The Panel found that:

- + **The internal corporate structure provides a governance arrangement that promotes independence, transparency, cost recovery and is appropriate to the organisation.**
- + **The number of stakeholders with environmental concerns is significantly larger than those with an interest in safety regulation. Consequently, engagement with environmental stakeholders is considerably greater, and likely to be more resource intensive. This needs to be considered in future NOPSEMA resource planning.**
- + **NOPSEMA has an appropriate Freedom of Information management system.**
- + **NOPSEMA is supported by an appropriate quality management system and regulatory management system.**
- + **NOPSEMA has made improvements in the way it shares information (both inter-agency and with external stakeholders).**
- + **Inter-agency collaboration is being undertaken with appropriate acknowledgement of risks which impact multiple agencies.**

The Panel believes that the internal governance structure within NOPSEMA provides appropriate oversight and should support the future growth of the organisation as it takes on additional responsibilities in a way that does not impede or undermine its ability to conduct its current responsibilities.

6.3 Corporate Risk Register Management Framework

NOPSEMA manages its corporate risks, financial risks and internal risks through a number of mechanisms. These mechanisms are guided by NOPSEMA's compliance as a corporate Commonwealth entity under the PGPA Act. This section discusses NOPSEMA's compliance for its risk management against its obligations as outlined under the PGPA Act.

6.3.1 Overview of PGPA Act Requirements for Corporate Risk Management

Under the PGPA Act, NOPSEMA is required to manage its corporate risk. This includes establishing an appropriate system to maintain risk oversight and management, and a system for internal control. The PGPA Act requires the Accountable Authority to ensure:³⁷

- + an appropriate system of risk and oversight management.
- + a corporate plan that details NOPSEMA's risk management framework.
- + an appropriate system of internal controls for the entity.
- + an audit committee.
- + a fraud control framework.
- + measures directed at ensuring officials comply with finance law.

6.3.2 Corporate Risk Management Register

NOPSEMA has an extensive risk report that includes corporate risk. The Risk Committee is largely responsible for oversight of internal risks and produces the annual risk report. The corporate risk register has 23 categories, and each category aligns to a number of threat elements. Each threat element can then be managed by one or more controls. Each risk area has an effectiveness rating. An overall rating is given to the effectiveness of the controls. A risk matrix is then used to assign the priority for each of the controls, and lines of accountability are clearly set out.

The Panel understands the NOPSEMA Leadership Team regularly reviews the actions undertaken by both risk owners and control owners. This provides oversight of the risks and of the activities undertaken to control them.

6.3.3 NOPSEMA Corporate Risk Oversight

Within NOPSEMA, the Audit Committee, Risk Committee and NOPSEMA Leadership Team give oversight to risk management and provide assurance and advice to the CEO.

The Panel understands NOPSEMA has developed policies, processes and established these committees to identify, measure, manage and report risks. This includes taking a strategic view of the organisation, in which strategic risks, obligations and opportunities are managed. NOPSEMA's audit and risk committees also manage

³⁷ *Resource Management Guide No. 200: General Duties of Accountable Authorities*, Department of Finance: Australian Federal Government, 2014, <http://www.finance.gov.au/sites/default/files/RMG-200-General-duties-of-accountable-authorities.pdf>

internal control and reporting processes that gives oversight to projects. The Panel found the risk management governance structures in place promote understanding of the requirements of finance law.

6.3.3.1 AUDIT COMMITTEE

The Audit Committee has existed prior to 2014, however in early 2014 it was reviewed and made to reflect upcoming PGPA requirements. The Audit Committee provides independent assurance to the Accountable Authority and advice on NOPSEMA's internal control mechanisms, financial and business risks. The Panel understands the committee members manage risk based on guidance provided by the Department of Finance, and have appropriate levels of expertise, such as financial reporting, governance and strategic risk management. Members of the committee include internal staff and external audit members. NOPSEMA has developed an Audit Committee Charter to ensure the committee reviews the integrity of the financial statements and provides assurance on compliance requirements. More details on the Audit Committee are included in Section 6.2.1.

6.3.3.2 RISK COMMITTEE

The Risk Committee assists with the carrying out of duties and the statutory obligations under the PGPA Act related to the establishment and maintenance of risk and control systems. The committee advises the Audit Committee on NOPSEMA's internal control mechanisms, fraud, financial and business risks, and compliance with its statutory obligations under the PGPA Act and Rules. The Panel understand NOPSEMA has also developed a Risk Committee Charter that outlines the purpose, scope, membership, key functions and responsibilities of NOPSEMA's Risk Committee, as part of the overall governance structure of the organisation.

6.3.4 Fraud Control

As a regulator NOPSEMA is understandably concerned with managing the risk of regulatory capture, that is, in which NOPSEMA's independence may be compromised to support the commercial or special concerns of interest groups that dominate the industry.

The Panel understands NOPSEMA has recently strengthened its anti-fraud planning mechanisms and has a fraud control policy, appropriate staff training and conflict of interest declaration processes. We understand NOPSEMA has introduced a fraud control policy, have appropriate staff training and conflict of interest declaration processes.

The Panel found NOPSEMA has successfully established internal control processes that appropriately address fraud control.

6.3.4.1 REGULATOR PERFORMANCE FRAMEWORK

The Commonwealth Government released the Regulator Performance Framework (RPF) in 2014, which will apply from 1 July 2015. The framework's primary objective is to improve the performance of regulators and their interaction with stakeholders. It is an important part of the Government's commitment to reducing the cost of unnecessary or inefficient regulation imposed by organisations such as NOPSEMA. The framework requires:

- + development of measures
- + stakeholder consultation measures
- + approval of measures
- + self-assessment reporting
- + stakeholder validation
- + report publication.

The Regulator Performance Framework comprises six key performance indicators (KPIs) that articulate the Australian Government's overarching expectation of regulator performance. These KPIs are listed below:

- + KPI 1 Regulators do not unnecessarily impede the efficient operation of regulated entities.
- + KPI 2 Communication with regulated entities is clear, targeted and effective.
- + KPI 3 Actions undertaken by regulators are proportionate to the risk being managed.
- + KPI 4 Compliance and monitoring approaches are streamlined and coordinated.
- + KPI 5 Regulators are open and transparent in dealings with regulated entities.
- + KPI 6 Regulators actively contribute to the continuous improvement of the regulatory frameworks.

The Panel has reviewed a number of internal NOPSEMA documents and has found governance measures are appropriate to address the six areas of the RPF as outlined in the draft Corporate Plan.

Findings: The Panel found that NOPSEMA's corporate risk is well managed. It includes an annual review of the risk register and ownership of risks and controls by key staff. The risks are identified, appropriate controls established and effectiveness monitored and rated. Overall, the corporate risk management framework is comprehensive and residual risk is managed effectively.

The Panel found that NOPSEMA engages daily with risk and risk assessments and analyses and assesses these in the following ways:

- + **Implementing and maintaining an effective risk based monitoring and compliance framework, and employing appropriate regulatory tools to ensure compliance and risk mitigation.**
- + **Maintaining a transparent and well documented systematic risk management framework to assist in the identification, evaluation and mitigation of regulatory risks and ensure that NOPSEMA resources are allocated to match identified priorities.**
- + **Undertaking the Comcover benchmarking survey to establish a risk management policy and framework.**

6.4 Financial Management

Under the PGPA Act, NOPSEMA is required to ensure effective financial management. In particular the PGPA Act requires NOPSEMA to ensure it:

- + Promotes proper use and management of public resources
- + Ensures financial sustainability of the entity. This includes ensuring medium to long term planning and budgeting and financial management strategies that accommodate resourcing and revenue fluctuations
- + Complies with reporting requirements

6.4.1 NOPSEMA's Compliance with the PGPA Act

NOPSEMA operates on a full cost recovery basis from industry levies and fees in accordance with the *Australian Government Cost Recovery Policy*.³⁸ NOPSEMA has a Cost Recovery Impact Statement (CRIS) in which levies are set on a three year cycle. The Panel understand the CRIS ensures levies are appropriately set to support the current level of industry activity and ensure NOPSEMA operates on a breakeven basis. In addition, NOPSEMA has incentives to control costs, including mechanisms such as relevant KPIs.

The Panel understands NOPSEMA retains the flexibility to maintain full time employees (FTE). The Panel is of the view that the total staff numbers within the organisation are appropriate. At the time of the review, NOPSEMA had 115 FTE and an approved headcount of 140 FTE. NOPSEMA maintains the flexibility to employ contractors for short assignments when necessary to increase capability and is able to respond to changes in work loads if necessary.

³⁸ *Australian Government Cost Recovery Guidelines: Resource management Guide No. 304*, Department of Finance: Australian Federal Government, 2014, <http://www.finance.gov.au/sites/default/files/australian-government-cost-recovery-guidelines.pdf>

Staff have the necessary competency and technical proficiency to fulfil regulatory responsibilities, noting however that the number of stakeholders with environmental concerns is significantly larger than those with an interest in safety regulation. Engagement with environmental stakeholders consequently requires greater input and is therefore likely to be more resource intensive. This needs to be considered in future NOPSEMA resource planning, including ensuring that staff have the capability to appropriately engage with stakeholders with environmental concerns.

The Panel was informed that financial risks are monitored by the Risk Committee (described in the governance arrangements in Section 6.2.1 NOPSEMA Corporate Structure). The NOPSEMA Leadership Team approves projects and is monitored by the Corporate Support Committee. Projects also have oversight by the Audit Committee. The decision making process for the use of resources is robust, and the structure provides adequate control processes for expenditure of money. This process is also linked to the corporate risk management framework. We were also told that NOPSEMA reports frequently to the Minister for Industry and Science.

If NOPSEMA is receiving ongoing requests from the same agency, it could be useful to discuss a fee-for-service regime. This relates to the inter-agency requests to share information between NOPTA and NOPSEMA. This relationship is discussed in Section 8.5.3: NOPTA.

Finding: The Panel has sighted NOPSEMA's internal audit systems and relevant documents, and is satisfied that the financial systems and controls in place are appropriate to ensure compliance with the PGPA Act.

6.5 Conclusion on Corporate Governance

On governance issues (ToR #2), consistent with the findings of the Australian National Audit Office review and PricewaterhouseCoopers review, the Panel found that NOPSEMA has effective internal controls covering compliance with the PGPA Act. We found that the regulator is suitably funded, is competent to ensure regulation due to its strong internal processes and is able to demonstrate outcomes on the Regulator Performance Framework.

7.0 EMERGING ISSUES

This section of the report discusses NOPSEMA's capacity to respond to emerging issues such as changes in industry operations and new technologies. The Terms of Reference (ToR #3) specifically directed the Panel to look at emerging issues, in particular floating liquefied natural gas technology. The Panel looked at the specific example of how the introduction of this technology has worked within the regulatory system administered by NOPSEMA.

The emerging issues we identified include:

- + New technology and early engagement
- + Decommissioning
- + Surrender of the title and legacy well abandonments
- + Well Regulations
- + Identifying an appropriate custodian of scientific data.

The emerging issues were raised by stakeholders who require confidence in NOPSEMA's capability to manage current and future issues. The Panel has included findings where relevant.

7.1 New Technology and Early Engagement

7.1.1 Background

The oil and gas industry is continually developing new techniques and technology. One recent example is the development of floating liquefied natural gas technology (FLNG). This is an example of a particularly significant technological change amongst more frequent, routine incremental changes in equipment, processes and managerial systems. Emerging technology often has implications for the relevancy of current regulations.

One concern raised by stakeholders was regarding the impact of seismic surveys on wildlife and that industry has been slow to adopt new, quieter technology. Industry participants have advised that new seismic technology is not yet developed to the point of field deployment.

7.1.2 Early Engagement

Under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* and associated regulations, it is an offence for a person to construct or install an offshore facility in Commonwealth waters unless there is a safety case in force for that facility. However the safety case is often submitted after the proponent of the facility has

committed to a specific facility design. This may in some cases bias major accident event risk management toward 'add on' or procedural controls which can be costly and subject to failure.

Amendments to the Safety Regulations and the (then) *Offshore Petroleum and Greenhouse Gas Storage (Safety Levies) Regulations 2004* in June 2010 provided NOPSA, now NOPSEMA with the ability to engage with industry regarding design issues for proposed facilities, and to recover the cost of that engagement. The amendments established an early engagement safety case regime by providing for (although not requiring) an operator to submit a proposed safety case for a proposed facility. Both NOPSEMA and the proponents of new production facilities supported these amendments, as they allowed engagement earlier in the safety regulation approval process.

These amendments followed a request from Shell to engage with NOPSEMA in the design stage of the Prelude FLNG facility. Without that engagement, there would be additional risk around the very large investment in such a project, utilising new technology, given the regulatory uncertainty about whether or not the design would be acceptable to the regulator. The Safety Case submission generally takes place after the design of a project is almost complete thereby removing the possibility of early engagement between the company and the regulator.

From a safety perspective, it is well accepted that getting the design right in the first place makes a major contribution to eradicating or minimising safety issues. At present the opportunities for early engagement between the regulator and the proponent of a project to address safety issues at a sufficiently early period in the design are limited to the early engagement safety case process. NOPSEMA has developed and published on its website a policy on the early engagement safety case.

The Panel found that NOPSEMA had over 25 meetings with Shell in relation to the Prelude Floating Liquefied Natural Gas (FLNG) facility since 2008. These meetings covered the design, construction and operation of the proposed FLNG facility. . The process was initially awkward, with NOPSA (now NOPSEMA) uncertain about how best to effectively engage with a project proponent on a novel technology, as time went on experience was gained, it appears to have proved effective in practice.

The current pragmatic approach to early engagement discussions is an example of NOPSEMA working constructively with industry to achieve improved safety outcomes in the concept select phase of field development.

7.1.2.1 NOPSEMA STAFF COMPETENCIES

To help assess the effectiveness of this informal process, the Panel also enquired about the knowledge, skills and experience of the personnel in NOPSEMA in the context of floating liquefied natural gas. The Panel heard that existing NOPSEMA personnel had substantial industry experience in relevant fields including:

- + floating production storage and offloading vessel operations
- + liquefied natural gas plant operation
- + marine vessel operations including liquefied petroleum gas tankers
- + process plant design and operation.

7.1.4 Design Notification Scheme

The NOPSEMA Annual Report 2014–2015 identified poor equipment design as the root cause for the majority of the notified dangerous occurrences from 2010–2014. In 2012, the Commonwealth Government accepted the recommendation of the *Second Triennial Review of the Operational Effectiveness of NOPSA* that the safety case system be strengthened by including provisions for a Design Notification Scheme along the lines of that established under the British Offshore Safety Case Regulations (Recommendation 7). In September 2014, the (then) Department of Industry and NOPSEMA agreed on the broad policy principles that would underpin a mandatory Design Notification Scheme for the offshore petroleum industry, and the case for regulatory change to implement the policy. The Department of Industry and Science has since engaged with APPEA to test these principles prior to consulting more broadly with industry as part of the regulatory impact assessment process.

The Design Notification Scheme is an early stage concept review that provides capacity for NOPSEMA to encourage ‘inherent safety in design’ to positively influence concept selection of production facilities using principles such as facility layout, inventory reduction and process simplification. The Panel understands the Design Notification Scheme would replace the current voluntary early engagement process and require the operator of the proposed production facility to formally submit design concept details to NOPSEMA. The benefit of early engagement is that the Design Notification Scheme would provide a basis for ongoing dialogue with NOPSEMA regarding major accident event controls and would transition into the submission of a safety case. The Design Notification Scheme encourages early engagement and would provide a mechanism for:

- + The Duty Holder to formally engage with NOPSEMA at an early stage in the design and concept selection for a proposed offshore production facility beyond the current safety case content requirements.
- + NOPSEMA to challenge the concept selection and proposed design of a production facility in order to be assured that the safety risks that will need to be reduced to ALARP have been recognised.

Finding: New technologies are being developed by the oil and gas industry on a continuous basis and regulators need to be able to assess the risk analysis presented by industry in each case. The major emerging case in the Australian environment is floating liquefied natural gas (FLNG). The Panel has seen evidence of a process of early engagement with Shell as the Prelude FLNG project moved through

various stages of its development. This has facilitated NOPSEMA's ability to access the risk management strategy proposed by Shell.

Finding: Duty Holders that have participated in the early engagement process have commented positively on the value of the engagement with NOPSEMA at the design phase of a proposed production facility. However, operational experience has revealed that the Safety Regulations do not currently provide the necessary flexibility to allow NOPSEMA and Duty Holders to meaningfully discuss the technical complexities and design issues often associated with new technologies. The Panel supports the Design Notification Scheme as an important early engagement mechanism.

Recommendation 9: The Department of Industry and Science should further develop the regulations regarding the Design Notification Scheme in collaboration with NOPSEMA and appropriate stakeholders.

7.2 Decommissioning of Facilities

The decommissioning of offshore petroleum exploration and production installations will become a key issue for industry in the future. Decommissioning is defined as ‘...in relation to a facility, means activities conducted to remove a facility from service. Note that for some facilities there may not be a decommissioning stage – e.g. construction or accommodation vessels^{39, 40}. There are over 3,000 wells in Australia’s offshore water, with a mix of exploration and production wells. In the coming years an increasing number of facilities and wells will approach or reach the end of their life cycle. This will result in decommissioning.

Ensuring facilities and wells are safely and effectively decommissioned under the requirements of a safety case and environment plan is essential. Ensuring this gives the Commonwealth confidence that decommissioned wellbores will not leak in the future, leading to environmental damage and potential financial liabilities.

Legacy approvals from State and Commonwealth Ministers prior to January 2012 include conditions attached to decommissioning of facilities. The decommissioning of producing assets, for example, facilities, pipelines and wells, subsea equipment, may require complete removal of equipment from the sea floor. There are some circumstances where this may not be the best environmental option. Allowing decommissioned equipment to remain on the sea floor may have benefits to the environment. The Panel believes NOPSEMA should review guidance for decommissioning facilities, pipelines, wells and subsea equipment in a pragmatic way, with flexibility to address decommissioning on a case by case basis. However, there is a lack of clarity as to the mechanism to revise legacy environment approvals in circumstances where revision is appropriate.

The Panel understands that industry is addressing the potential for increased decommissioning activity. APPEA have formed a subcommittee focused on developing a consistent approach by industry to the issues associated with decommissioning facilities, pipelines, wells and subsea equipment.

Finding: The Australian oil and gas industry is anticipating a large increase in decommissioning activity in the future. In preparation for this, additional resources will need to be identified by NOPSEMA to support the increased management of decommissioning activities. A pragmatic approach to the management of decommissioning activities may facilitate better management of the decommissioning of pipelines, wells and subsea equipment, with flexibility to address decommissioning on a case by case

³⁹ NOPSEMA Guidance Note N04300-GN0087 Revision 5, December 2012, National Offshore Petroleum Safety and Environmental Management Authority, <http://www.nopsema.gov.au/assets/Guidance-notes/N-04300-GN0087-Safety-Case-Lifecycle-Management.pdf>

⁴⁰ J Mathonnier, *Decommissioning: Striking the Right Balance*, 2014, <http://oilprice.com/Energy/Energy-General/Decommissioning-Striking-the-Right-Balance.html>

merit. However, a lack of clarity identifying the most appropriate mechanism to revise legacy environment approvals may constrain this.

Recommendation 10: NOPSEMA should prepare for increased decommissioning activity in the future by working with the Department of Industry and Science, industry stakeholders and relevant parties to develop guidance notes on decommissioning.

Recommendation 11: The Department of Industry and Science should clarify the appropriate mechanism to allow NOPSEMA to vary legacy environmental conditions and associated approvals granted prior to 1 January 2012 where appropriate.

7.3 Surrender of Title and Legacy Well Abandonments

In the event Titleholders advise NOPTA of their intention to relinquish an oil and gas permit or licence, NOPTA requires independent assurance that the wells drilled in life cycle of the permit have been appropriately abandoned.

The task of examining legacy well records and preparing a judgement on the adequacy of well abandonment should logically be conducted by the Commonwealth agency best equipped to undertake the work. The Panel believes this is best tasked by NOPSEMA, perhaps on a fee for service basis. NOPSEMA currently has the capability to undertake this role. The Panel understands in the past it had been initially difficult for NOPTA to obtain suitable advice regarding well abandonment in order to finalise its advice regarding Titleholder applications to surrender permits in good standing. NOPSEMA currently has access to expertise to undertake appropriate analysis. Formalising this role under NOPSEMA's management would allow NOPSEMA to make an informed judgement and advise NOPTA appropriately.

As discussed in Section 8.3.3, the inter-agency relationship between NOPTA and NOPSEMA has been characterised by limited, but improving cooperation. This has been due in part to the legislative barriers preventing the sharing of information between NOPTA and NOPSEMA.

The Panel has also recognised the information sharing between NOPTA and NOPSEMA may be further enabled by the proposed *Amendments to Part Five of the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011* (more information is at Section 7.4):

“A new provision is proposed to facilitate sharing of information relating to wells between the National Offshore Petroleum Titles Administrator and NOPSEMA for the purpose of the administration of the OPGGS Act and the Wells Regulations.”⁴¹

Finding: In the past it has been difficult for NOPTA to obtain suitable advice regarding well abandonment in order to finalise its advice regarding Titleholder applications to surrender permits in good standing.

Recommendation: As per Recommendation 15, NOPSEMA and NOPTA should develop an appropriate mechanism (for example an MOU or charter of engagement) to identify the interfacing points and areas of cooperation between the agencies, and their respective responsibilities.

⁴¹ *Amendments to Part Five of the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011, Explanatory Document*, Australian Government, 9, <http://www.industry.gov.au/resource/UpstreamPetroleum/OffshorePetroleumSafety/Documents/Review-of-Part-5-of-the-RMAR-Explanatory-Document.pdf>

7.4 Wells Regulations

The recent proposed amendments to existing Wells Regulations undertaken by the Department of Industry and Science will impact NOPSEMA's operations as a regulator. This section provides some detail on the changes to regulations. The regulations covered in this section include:

- + Amendments to Part Five of the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011.
- + National Greenhouse and Energy Reporting (Measurement) Amendment Determination 2015 (No 2).

7.4.1 Amendments to Part Five of the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011 (OPGGS RMAR Part 5 (2011))

The purpose of reviewing the *OPGGS RMAR Part 5 (2011)* (the 'Wells Regulations') has been to ensure that regulation of the integrity of offshore petroleum and greenhouse gas storage wells, and well activities in Commonwealth waters, reflects leading practice and objective-based regulation. The review was approved in the response to recommendations made in the Montara commission of Inquiry.

In conducting the review of the Wells Regulations, the Department undertook a series of public consultations – firstly, through the development of an Issues Paper (which scoped policy, legal and operational issues impacting the regulation of wells); and secondly, through the development of a Policy Framework (which outlined the Government's position and desired policy outcomes for the Wells Regulations).

Key proposed regulatory amendments include:

- + Introducing a separate object specific to the Wells Regulations: "the maintenance of the integrity of offshore petroleum and greenhouse gas wells by ensuring that risks to well integrity are reduced to as low as reasonably practicable", including the use of the principle ALARP in place of 'good oil field practice' in regards to wells.
- + Making the well operations management plan (WOMP) the sole permissioning document for well and well activities by introducing a notification scheme for well activities in place of the current well activity approval requirement for specific well activities. This will introduce a new content requirement that will require Titleholders to describe their arrangements for suspension and abandonment of a well upfront in their WOMP, and introduce a new content requirement that will require Titleholders to describe measures and arrangements that will be used to regain well control in the event of a loss of well integrity.

- + increasing the consistency between the process for regulating well activities under the Wells Regulations and the processes set out in the Safety and Environment Regulations, where appropriate, by streamlining the decision making process for a WOMP with the processes set out in the Safety and Environment Regulations, including a provision for requesting further information on a submitted WOMP equivalent to that within the Safety and Environment Regulations, and introducing a new standalone requirement for titleholders to notify, report and record well-related reportable incidents.

The Panel supports the implementation of the Wells Regulations, particularly as streamlining the WOMP with ALARP will align WOMPs with NOPSEMA's other permissioning documents. The Panel believes this will improve cooperation between NOPSEMA and NOPTA.

7.5 Independent Custodian of Scientific Data

The Panel was advised of a number of ongoing studies into the impact of the petroleum industry on the marine environment and several independent studies have been commissioned by industry proponents. The credibility of these studies is often challenged by stakeholders who remain sceptical of the independence of the researchers. There is a need to separate the genuinely independent studies from industry-influenced studies in the minds of stakeholders. For this reason, the custodian and publisher of data associated with such studies needs to be an independent entity in which there is no perception of a conflict of interest.

Finding: The Panel has found there is a need for a suitable agency (or agencies) to act as the custodian of independent environmental studies. This will help to ensure credibility of the studies for industry and community stakeholders.

7.6 Conclusion on Emerging Issues

It is the Panel's view that NOPSEMA has managed emerging issues well. The emerging issues discussed above – new technology, changes in regulations, the decommissioning of wells and so on – represent the diversity of issues that NOPSEMA can expect to be managing in the future. Looking ahead, the Panel is confident that NOPSEMA exhibits the characteristics of an organisation that can manage as yet unknown emerging issues. NOPSEMA appears to be flexible and capable of undertaking appropriately rapid decisions on emerging issues.

In the past years NOPSEMA has improved its capacity to collaborate with other organisations, and with stakeholders. Consequently, NOPSEMA has demonstrated that it can identify risks in partnership with stakeholders, a key part of managing any future issues. This positions NOPSEMA well to manage future issues as it can be reasonably expected that some issues will require input from other agencies or stakeholder groups or may require NOPSEMA to form multi-disciplinary teams that incorporate personnel from NOPTA, AMSA or other parts of government. Improvements at an organisational capability level should position NOPSEMA to continue to effectively manage future issues.

8.0 STAKEHOLDER ENGAGEMENT

This section of the report reviews NOPSEMA's interaction with external parties to improve regulatory outcomes in an objective-based regulatory environment. This section discusses stakeholders including: industry (oil and gas), workforce, environmental NGOs and community, Commonwealth agencies (such as NOPTA and AMSA), unions, state and territory government bodies, the NOPSEMA Advisory Board and other industries (commercial fishers and pearlers).

8.1 The Role of Stakeholder Engagement

Under the OPGGS Act, NOPSEMA is responsible for promoting safety, well integrity, and environmental management. A key part of this role is the provision of advice to industry and other stakeholders. Stakeholder engagement is a critical element of the Safety and Environmental Regulations and is essential in an outcomes-based regulatory system. Consultation with industry and other stakeholders groups must be meaningful. While engagement is mandated by the regulation, it should not be prescriptive or undertaken on a pro forma basis. Stakeholder consultation plays an important part in gathering information, and as such is integral to NOPSEMA's ability to understand the perceptions and viewpoints of those individuals and organisations who are affected by the oil and gas industry.

By maintaining productive relationships with stakeholders, NOPSEMA can be confident that it will receive important information in a timely manner, staying aware of trends in the offshore environment. However, providing information is an equally critical part of NOPSEMA's role, and effective engagement with its stakeholders is an important part of building a social licence to regulate, and being seen as a trusted partner.

The inclusion of the environmental management powers and functions into NOPSEMA's operations has made the stakeholder landscape significantly more complex. With its inclusion, environmental NGOs, community and other industries became stakeholders with a vested interest in offshore waters. These stakeholders will continue to hold concerns that the oil and gas industry will have a negative impact on their interests in common use areas. NOPSEMA now has the responsibility to regulate in a fair and transparent manner for all of those interests, which are sometimes competing. While NOPSEMA provides advice and guidance to the oil and gas industry on safety and regulatory compliance (with a view to improving industry's ability to operate commercially), it will need to balance its obligations to all stakeholders. There will be a continuing need for NOPSEMA to engage with both communities and to build confidence in its regulatory role as an effective agent in protecting interests.

Balancing NOPSEMA's traditional role with its environmental management role means building trust, and building lasting and meaningful relationships. NOPSEMA needs to be cognisant of the fact that the number of stakeholders with environmental concerns is significantly higher than those with an interest in safety regulation. Engagement with environmental stakeholders consequently requires greater input and is therefore likely to be

more resource intensive. This has become an even greater need since the environmental powers from the streamlining of the EPBC Act into NOPSEMA. This needs to be considered in future NOPSEMA resource planning.

Finding: The Panel have found that NOPSEMA's regulation of the oil and gas industry's access to marine areas may displace other non-industry users temporarily during the period of oil and gas activity. This may have a commercial impact on the other industries, i.e. ecotourism, fishing, recreational users. However, there is a perception that NOPSEMA is ineffective at ensuring Duty Holders effectively engage with other users. It is therefore critical that NOPSEMA regulates the oil and gas industry access to marine areas with awareness of how its decisions may impact other industries.

8.2 NOPSEMA Stakeholder Management Framework

In order to ensure consistent stakeholder engagement processes, NOPSEMA developed a Stakeholder Engagement Framework. This framework identifies key stakeholder groups, the communication mechanism most relevant to NOPSEMA's legislated function and the associated interactions with stakeholders.

The framework provides guidance to NOPSEMA personnel on the management of stakeholders who have competing political, economic and social interests. NOPSEMA rightly expects to come under close scrutiny from these stakeholders and other stakeholders who have a vested interest in reporting underperformance. Effective stakeholder consultation, as discussed previously, is a critical component of any approach that aims to build trust in a regulator and build a social licence to regulate (see Section 8.5).

The content of the framework is relevant and applicable to the role of NOPSEMA as a regulator. It identifies the principles under which NOPSEMA engages with stakeholders. These include:

- + NOPSEMA will engage with stakeholders in a way that meets and optimises the fulfilment of its legislated functions.
- + NOPSEMA will conduct stakeholder engagement in a professional, transparent and independent manner.

Comparison with other guidance on stakeholder engagement indicates that NOPSEMA's framework is appropriate to its role.

NOPSEMA regularly engages with its key external stakeholders. The framework identifies target stakeholder groups and communication mechanisms relevant to these legislated functions and guides NOPSEMA's interactions with them. NOPSEMA identifies stakeholders on a tiered basis, prioritised according to their level of influence. This accords with standard practice for categorising and defining a stakeholder environment. The contact list is extensive, comprising 3700 registered parties. However, the current categorisation of key

stakeholders, based on the influence matrix, may no longer be applicable. In recognition of the size and complexity of those stakeholders with an interest in the environment, those stakeholders will require additional engagement. A summary of the stakeholders and type of engagement is in Annex H.

NOPSEMA has improved its policies and practices as recommended in the 2011 triennial review. NOPSEMA is conducting regular engagement with its key external stakeholders. Its consultation and engagement processes are reported to have steadily improved in the period of this review. Communication has improved with Duty Holders. NOPSEMA has recently started to conduct ad hoc specific topic-based workshops which are supported by industry, for example the recent performance standard workshops held in conjunction with the International Association of Drilling Contractors.

Although the framework is based on the appropriate principles of professional, transparent, independent engagement, stakeholders have reported that further targeted stakeholder engagement by NOPSEMA is needed.

NOPSEMA needs to balance the extent to which it can reasonably engage stakeholders without compromising its regulatory independence and its commitment to a best practice regime. Similar concerns are raised in the 2011 triennial Review, with advice that NOPSEMA should increase its advisory functions by improving engagement with industry. NOPSEMA understandably has concerns about any actual or perceived regulatory capture, where its independence may be compromised. Issues with regulatory capture may relate to the perception that individuals who work across the private and public sectors may be unduly influenced by their previous commercial interest.

Special interest groups from a range of areas (industry, environment, industrial) may be perceived to have inappropriate influence on NOPSEMA's agenda. The Panel found no indication of any regulatory capture during this review. The independence of the regulator is not in question. Effective stakeholder consultation that builds trust, promotes transparent communication and grows the social licence to regulate (see Section 8.5), is a key control to any perception of regulatory capture.

Finding: NOPSEMA needs to balance stakeholder engagement without compromising its regulatory independence. We found a need for NOPSEMA to build a social licence to regulate, which is further discussed in Section 8.5: Toward a Social Licence to Regulate.

8.3 Specific Stakeholder Findings

8.3.1 The Regulated Entity – Industry

One of the challenges NOPSEMA faces is balancing the extent to which it can reasonably engage stakeholders without compromising its regulatory independence and its commitment to a best practice regime. The difficulty is

finding the balance that allows NOPSEMA to satisfy its statutory objectives whilst providing guidance, advice, education and feedback

The regulator has a unique whole-of-industry perspective on issues and areas for improvement. This begs the question: to what extent does the regulator have a role to play in promoting best practice through education and guidance?

Industry believes NOPSEMA should play a larger part in promoting best practice. The APPEA written submission states “there is far more NOPSEMA could do to apply the insights and learnings it gains from its overview of all of industry’s operations, and from its interactions with global regulators”. The submission recognises NOPSEMA does communicate some findings of topic-based inspections, however the observations and findings from its inspections are written at a very high level in a “once a year lag report” published annually in May the following year. The Panel also heard that topic-based inspections were positively viewed by members from industry. In addition, the APPEA’s written submission pointed out that NOPSEMA could do more to “ensure timely and effective sharing of learnings from serious incidents and investigations across the industry” to aid the prevention of major accident events.

The Panel heard from APPEA that there is a “missed opportunity” for driving significant improvements by engaging with the whole industry, possibly through a joint APPEA/NOPSEMA workshop. However, the Panel also heard NOPSEMA is conducting workshops in June 2015 directly with industry on the reference case for use of dispersants in oil spill preparedness. In addition, we heard from across industry that NOPSEMA’s engagement has improved, an example of which is the improvement in oil spill preparedness over the period of this review.

The Panel agrees there is a role for NOPSEMA in promoting continuous industry improvements and best practice due to its whole-of-industry perspective, and that NOPSEMA has started to recognise and act in this capacity. As prevention of major accident events is one of NOPSEMA’s primary concerns, there is a particular need to share lessons from serious incidents with industry.

Finding: NOPSEMA has a role in promoting continuous improvement in industry performance.

Engagement with industry has resulted in improvements in risk identification, management and control in the environment plan and oil pollution emergency plans.

Recommendation: As per Recommendation 5: NOPSEMA should continue to identify and implement cost effective and tailored/targeted education activities that improve its capacity to engage with stakeholders in order to share lessons, provide guidance and share new information.

8.3.2 AMSA

The Australian Maritime Safety Authority (AMSA) is one of the federal government agencies that NOPSEMA engages with in order to fulfil its mandate. AMSA is responsible for promoting maritime safety and protection of the marine environment, preventing and combating ship sourced pollution in the marine environment, providing infrastructure to support safe navigation in Australian waters, and providing a national search and rescue service to the maritime and aviation sectors.

Vessels engaged in oil and gas activities in Australia often move between AMSA and NOPSEMA jurisdictions and therefore the responsibility for regulating activities transfers between the two agencies. In addition, some oil and gas facilities, such as floating production storage and offloading units, are floating vessels that can be classified as either a 'facility' under the OPGGS Act when being operated, or a 'vessel' under the Navigation Act at other times. It is essential AMSA and NOPSEMA work collaboratively to ensure effective management of maritime safety around oil and gas facilities.

AMSA and NOPSEMA also collaborate in:

- + Ensuring maritime safety. AMSA accords very high priority to the safe navigation in Australian waters, and collaborates with NOPSEMA to ensure the location of oil and gas facilities are known and vessels pass around obstacles in a safe manner.
- + Oil spill response planning under AMSA's National Plan for Maritime Environmental Emergencies (National Plan).⁴² Industry stakeholders now have agreements in place with AMSA to respond to an oil spill. Some state governments have similar arrangements with AMSA to respond to an oil spill if it drifts onshore.

The Panel understands that over the last three years there has been limited collaboration in the working relationship between AMSA and NOPSEMA, although this has recently been improving. AMSA and NOPSEMA display good cooperation at the operational level. There have been improvements in oil spill preparedness and in articulating agreements between proponents and AMSA, due to NOPSEMA's environmental management regime.

However, the Panel was advised of a number of issues which relate to a lack of clarity in the touch points between the OPGGS Act and the Navigation Act. These include:

- + A lack of clarity of which regulator has control over a ship close to a facility.
- + A lack of clarity when a vessel swaps from a facility to a ship and the transfer of control on and off the riser.

⁴² *National Plan for Maritime Environmental Emergencies*, Australian Maritime Safety Authority, March 2014, http://www.amsa.gov.au/forms-and-publications/publications/national_plan.pdf

The Panel also understands NOPSEMA and AMSA have previously held joint inspections of vessels' certification, however we understand these have now ceased. This is of concern. AMSA needs to ensure ongoing certification of vessels to comply with its obligations under the Navigation Act and International Maritime Organisation (IMO) standards. Certification involves AMSA inspectors boarding an offshore facility, such as a floating production, storage and offloading unit to ensure the facility's maintenance is sufficiently adequate for certification when it ceases operation and again becomes a vessel, at which point responsibility changes from the OPGGS Act to the Navigation Act.

The ending of joint inspections limits AMSA's ability to ensure vessels maintain certification when stationary and means that AMSA cannot rely on the safety case to ensure maintenance will meet the certification standards.

The Panel understands that AMSA has made recommendations to proponents to use specific automatic identification system (AIS) technology to ensure nearby vessels can navigate safely around facilities, however NOPSEMA has provided minimal feedback on whether AMSA's advice has been acted upon.

However, at an operational level NOPSEMA and AMSA have been working collaboratively, particularly in regard to the National Plan exercise that was held in May 2015. We cannot comment on the success of this plan as it was outside the scope of this review.

The relationship between AMSA and NOPSEMA has continued to improve but lack of clarity on the touch points between the two agencies and the two pieces of legislation remains.

Finding: Similarly to the 2011 Triennial review the relationship between AMSA and NOPSEMA has been constrained by a lack of clarity on the touch points between the two agencies and their legislations. This has been slowly improving, to the extent that the Panel heard that the agencies cooperate well at an operational level. A proactive approach from both agencies and the policy departments could be useful in clarifying the interaction between the two agencies and the two pieces of legislation.

Recommendation 12: NOPSEMA and AMSA should refresh their Memorandum of Understanding and in doing so seek clarity on their commitments and responsibilities under their respective Acts.

8.3.3 Environmental Non-Government Organisations and Community

As discussed above, the inclusion of the environment portfolio into NOPSEMA's operations has made the stakeholder landscape significantly more complex. With its inclusion, the oil and gas industry becomes one of many stakeholders with a vested interest in offshore waters. Other stakeholders will continue to hold concerns that the oil and gas industry will have a negative impact on their interest in common use areas.

This concern is due, in part, to the fact that on 28 February 2014, a new streamlined approach for environmental approvals for offshore petroleum and greenhouse gas activities commenced, establishing NOPSEMA as the sole designated assessor for these activities in Commonwealth waters. The Minister for the Environment had approved all petroleum and greenhouse gas activities taken in Commonwealth waters in accordance with the NOPSEMA environment management authorisation process under the OPGGS Act and associated Environment Regulations, with the exception of exclusions listed in the approval notice. This approval meant that Titleholders seeking to undertake these activities in Commonwealth waters would no longer need to refer those actions for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (EPBC Act), provided the activity is assessed in accordance with the NOPSEMA environment management authorisation process. Some stakeholders feel that this has diminished the available channels of appeal, in particular appeals to the Commonwealth Minister for the Environment and State Environment Ministers. The Panel understands that channels of appeal still exist. Any stakeholder who wishes so can appeal to the Commonwealth Environment Minister regarding the class approval. However, the ability to influence the Minister on individual activity decision has been reduced. Beyond the Commonwealth Environment Minister, any party can appeal directly to the Federal Court in the *Administrative Decisions (Judicial Review) Act 1977*. For activities in Commonwealth waters, the State Environment Minister is not formally involved in decision making. As such, there was no previous avenue for appeal pre or post the streamlining process being undertaken in Commonwealth waters.

NOPSEMA must be perceived as Independent, Competent and Transparent to build a relationship of trust with environmental Non-Government Organisation (NGO) and communities. This is essential to build the foundation for the possible future conferral of state and territory powers and functions for OHS, integrity and environmental management on NOPSEMA in designated coastal waters, as state and territory ministers need to be confident that NOPSEMA is cognisant of community concerns.

Through consultation with some environmental NGOs, the Panel understands there is a lack of trust that NOPSEMA is cognisant of community and environmental NGOs concerns. As outlined in the Wild Migration submission, “NOPSEMA operate without any ethical considerations about community and stakeholder concerns”, and the regulator has a “role in ensuring environmental management (as defined by the EPBC Act) ... in this area we believe NOPSEMA has failed since January 2012”.

However, other feedback suggests that industry’s capability to respond to environmental issues has improved considerably. NOPSEMA has driven improvement in industry preparedness to respond to oil spills, capacity to cover costs and expenses associated with response and clean up measures, and improved environmental risk assessments. In addressing these stakeholder concerns, NOPSEMA recognised the need to build trust with environmental NGOs and the community and has “taken proactive and strategic approach to address the need

for more public transparency and stakeholder consultation triggered by undertaking the OPGGS (Environment) Regulations and EPBC Act compliance”.⁴³

Transparency is an essential part of NOPSEMA’s strategy to build trust, particularly in relation to building a social licence to regulate. We heard from many environmental NGOs that there is a “current lack of transparency and accountability that compromises environmental protection” as outlined in the submission from The Wilderness Society from South Australia. Transparency concerns include the decision making process of NOPSEMA the reasoning for acceptance of permissioning documents and the level of detail in the permissioning documents made available to the public.

For example, upon evaluation of an environment plan, the Environment regulations require Duty Holders to submit a summary of the EP for publication by NOPSEMA. The Panel heard from environmental NGOs and communities that they are not satisfied with the detail of the documents, and are concerned that the timeliness of release of these documents does not allow sufficient time for communities to appeal decisions.

A number of environmental NGOs stated there is a clear opportunity to publicise environment plans, performance standards and decision making. Under the previous EPBC Act, a significant portion of information was made available before approvals were given. As such the community could seek a ‘Statement of Reasons’ from the Minister that carefully detailed reasons behind decisions after they were made. Feedback from environmental NGOs during this review stated that currently “NOPSEMA fails an equivalency test in this respect”. The Panel understands that NOPSEMA publishes a statement of reasons policy on their website for the information of stakeholders, and has done so prior to the period under review. The policy outlines how NOPSEMA prepares and issues statements of reasons under the *Administrative Decisions Judicial Review Act 1977 (Cwth)* (ADJR Act) for decisions made under OPGGS Act and associated regulations. Many stakeholders see the process associated with accessing information on NOPSEMA’s decision making as onerous. There is a perception that NOPSEMA does not sufficiently communicate how decision making has incorporated community concerns, and does not make its reasoning easily available. As such, many stakeholders identified the need for NOPSEMA to improve how it communicates its decisions.

Environmental NGOs feel that the lack of transparency is a “serious issue that represents a breach of public trust in Commonwealth regulation of the offshore oil and gas industry operations and related environmental protection; and a failing with the integration of environmental management responsibilities into NOPEMA’s functions.”⁴⁴

⁴³ APPEA written submission.

⁴⁴ Wilderness Society (South Australia). Written submission.

The Panel understands that NOPSEMA is currently undertaking work to remediate the perceptions held by some environmental NGOs. For example, NOPSEMA has recently sent representatives to speak with environmental NGOs and communities in highly environmentally sensitive areas such as the Great Australian Bight. In addition, APPEA has recognised “NOPSEMA’s approach (to stakeholder consultation) has balanced the objective of building public and stakeholder confidence in the rigour and transparency of NOPSEMA’s regulatory decision making process, whilst also addressing sensitive and complex nature of highly technical and ALARP arguments”.⁴⁵

Finding: NOPSEMA has achieved an increasing number of positive environmental outcomes since assuming responsibility for the new environmental regime. However, a significant lack of transparency and trust with environmental NGOs and community still exists. The Panel believes that NOPSEMA should, whenever appropriate, provide reasons for decisions to community and stakeholders. Acting transparently by sharing the reasons for decisions should contribute to building and improving trust with community and stakeholders.

Recommendation 13: NOPSEMA should develop a mechanism to provide greater transparency of decision making and assessments to stakeholders.

8.3.4 NOPSEMA Board

As part of the establishment of NOPSEMA, the Board was established to provide advice to the NOPSEMA CEO, the Commonwealth and state and Northern Territory ministers and the COAG Energy Council. The Board functions are set out under the OPGGS Act in Section 654, which are to focus on providing advice and recommendations to the CEO regarding, “operational policies and strategies to be followed by NOPSEMA in the performance of its functions”; it is also to advise the relevant ministers on the performance of the CEO and Authority, as well as the CEO.

The Board provides advice on the effectiveness and performance of NOPSEMA with regard to its functions, policy and operational policy and strategic matters. Comprising six members and a Chairman, the Board meets four times a year. Current Board members bring experience from the domestic and international petroleum industry, academia, the public service, and a range of risk, process and personal safety knowledge.

The Board provides a mechanism for the CEO and ministers to seek impartial advice. This advice enables and supports effective and appropriate decision making. Feedback from stakeholders indicates that the Board was underutilised in the past. The Panel understand this to be changing and there is a new mechanism in place to

⁴⁵ APPEA written submission.

draw on the Board's advice on specific matters. We also understand that NOPSEMA regularly briefs the Board on financial tracking and staffing and discusses when appropriate the organisation's corporate risk and emerging risks.

Stakeholder feedback indicates that the Board could continue to add value by providing advice on industry practice, industry trends and on current and emerging issues. For example, the Board is supportive of the Design Notification Scheme, the revised Wells Regulations, conferral of powers from the states and simplification of the OPGGS Act. In addition, the Board is supportive of NOPSEMA's adequate use of enforcement tools and believe they are used appropriately. The Board is cognisant of stakeholder concerns regarding the need for greater transparency surrounding NOPSEMA process and supports further discussion and consultation with stakeholders.

The Board also provides an avenue for qualitative feedback on NOPSEMA performance. There are periodic Board reviews in which feedback is given by oil and gas industry peers.

Finding: In the past the Board has been underutilised, however this has improved over the period of this review. The Panel found there is a formal mechanism for NOPSEMA to seek advice from the Board. The Panel expects this will improve the utilisation of the Board and its capacity to provide appropriate guidance.

Recommendation 14: NOPSEMA should continue to seek expert advice from the Board when necessary.

8.3.5 NOPTA

The National Offshore Petroleum Titles Administrator (NOPTA) is one of the Commonwealth Government agencies with which NOPSEMA interfaces. Established on the 1 January 2012 in conjunction with NOPSEMA, NOPTA is responsible for the day-to-day administration of petroleum and greenhouse gas titles in Commonwealth waters. This includes the collection, management and release of data, titles administration, approval and registration of transfers and dealings, and the keeping of the registers of petroleum and greenhouse gas titles. NOPTA and NOPSEMA interface to provide the appropriate advice to the Minister regarding matters pertaining to titles administration.

During the initial period of operations, inter-agency cooperation was limited as both agencies focused on discharging their new responsibilities. NOPSEMA's focus on strict compliance with regulation and cost recovery was impeding the flow of information between the two agencies. For example, it had been initially difficult for NOPTA to obtain suitable advice regarding well abandonment in order to finalise its advice regarding Titleholder applications to surrender permits in good standing.

Over the past three years demonstrable improvements in collaboration have been made between the two organisations. Feedback indicates that NOPSEMA is now delivering on its potential (in regard to regulatory outcomes) and working well within the regime, rather than in isolation. Interactions are more frequent, more positive and generally improving the way that the regime operates.”⁴⁶ We understand that the organisations are now sharing geospatial capabilities and data, and there is an opportunity to second a NOPTA staff member to NOPSEMA.

While progress has been consistent over the past three years, stakeholders suggested that improvements can still be made. With further sharing of data and capability, particularly in relation to ensuring compliance from industry operators and Duty Holders, and streamlining the communications process. This could be expected to reduce the regulatory burden, assist Duty Holders, and improve quality of advice to the Joint Authority. The Panel understands benefits could be realised for both organisations, such as reducing costs in sharing capabilities.

Legislation was identified by some stakeholders as constraining the relationship between the two agencies. This has been mitigated by the removal of these legislative barriers, which will allow sharing of information between the two agencies and enable further collaboration. Part 6.11 of the OPGGS Act enables NOPSEMA to share information that it has obtained in the course of performing its functions and powers under or administering the Act and regulations with NOPTA.

Findings: During the initial period of operations of both agencies, NOPSEMA and NOPTA had limited cooperation, however this is improving. The Panel believes an opportunity exists to further improve cooperation. The most appropriate mechanism to facilitate this is the establishment of a Memorandum of Understanding. This will require review and refinement in order to expressly clarify the interfacing points between the agencies. If in the future NOPSEMA provides regular services to NOPTA, both agencies will need to clarify the supporting financial arrangements.

Recommendation 15: NOPSEMA and NOPTA should develop an appropriate mechanism (for example an MOU or charter of engagement) to identify the interfacing points and areas of cooperation between the agencies, and their respective responsibilities.

8.3.6 Other Industries

The oil and gas industry often undertakes activities in multi-use marine areas and NOPSEMA's regulation of oil and gas industry's access may displace other non-industry users temporarily during the period of oil and gas activity. This may have a commercial impact on the other industries. i.e. ecotourism, fishing, recreational users. It

⁴⁶ NOPTA written submission.

is therefore critical that NOPSEMA regulates oil and gas activities in these areas in a reasonable manner that takes into account the multi-use nature of the area.

Written submissions to the Panel indicate that NOPSEMA is managing its environmental responsibilities in a manner that is appropriate for the oil and gas industry. For example, the Panel heard that, “NOPSEMA’s desired outcomes are clear and well known... and the oil and gas industry driven interpretation makes good sense when activities are located in deep water”.⁴⁷ In addition, some industries have recognised NOPSEMA’s current governance arrangements are consistent with the legislative requirements and are applied consistently and in a timely manner. Feedback to the Panel indicates that it is clear to some industries that NOPSEMA continues to improve communications and take interactions with stakeholders seriously. However, we also heard that some stakeholders believe that inconsistencies with communication and a lack of clarity is reducing the effectiveness of NOPSEMA’s engagement.

The Panel heard NOPSEMA’s regulatory outcomes are well understood for deep water oil and gas activities. However, where oil and gas industries interact with other activities (commercial fishing, pearling, eco-tourism), coastal marine habitats and marine ecosystems, some stakeholders felt that, “regulatory outcomes need to [be] more inclusive and accommodating. It would seem that currently this is not the case”.⁴⁸ This perception points to a possible lack of clarity at NOPSEMA of the added complication of regulating a multi-user environment. Stakeholder feedback implies that some stakeholders have an underlying lack of trust in NOPSEMA, partly due to a perception that NOPSEMA is prioritising the oil and gas industry over other users.

Further feedback pointed out the need for NOPSEMA to understand the reliance many multi-users place on it to regulate on behalf of all users. Hence, NOPSEMA needs to understand all stakeholder concerns and the potential impact of oil and gas activities on other users to ensure marine multi-use areas are sustainable for all users.

The Panel heard “it is of optimal importance that NOPSEMA (as the regulator) is transparent and communicates expressly and clearly to all affected parties.”⁴⁹ Stakeholder feedback indicates a widely held perception that NOPSEMA is not as transparent in its decision making. Feedback singled out ALARP and the assessment of environmental risks and impacts as areas where stakeholders had a reasonable expectation that their concerns had been taken in account in the decision making process. Stakeholders believe that NOPSEMA is failing to adequately involve them in risk assessments. There is a concern that NOPSEMA’s focus is on ‘industrial’ activity

⁴⁷ Western Australian Fishing Industry Council (WAFIC)/Pearl Producers Association (PPA) written submission.

⁴⁸ *ibid*

⁴⁹ Western Australian Fishing Industry Council (WAFIC)/Pearl Producers Association (PPA) written submission.

in the first context, rather than an ‘environmental’ context as implicitly required under the OPGGS Act regulations.⁵⁰

Finding: NOPSEMA’s regulation of the oil and gas industry’s access to marine areas may displace other non-industry users temporarily during the period of oil and gas industry activity and this may have a commercial impact on the other industries. It is therefore critical that NOPSEMA regulates the oil and gas industry access to marine areas with awareness of how its decisions may impact other industries.

Finding: We found non-oil and gas companies that engage with NOPSEMA have minimal transparency over NOPSEMA’s decision making process. In addition, they believe NOPSEMA does not understand the impact of oil and gas activities may have on the commercial interests of other users.

Finding: As discussed previously in the findings in Section 8.1 (The Role of Stakeholder Engagement) and Section 8.3.3 (Environment Non-Government Organisations and Community), there is an opportunity for NOPSEMA to better share the reasons for its decisions as part of an improved education process, and to more effectively regulate oil and gas industry access to marine areas in a fair and balanced way.

Recommendation: As per Recommendation 13, NOPSEMA should develop a mechanism to provide greater transparency of decision making and assessments to stakeholders.

8.3.7 The Department of Industry and Science

NOPSEMA was established as an independent statutory authority separate to the Department of Industry and Science as the policy agency for the offshore petroleum regime.

A strong working relationship, with a clear collaborative approach, is essential for NOPSEMA and the Department. Decisions made by the Department will impact NOPSEMA, and as such, developing a collaborative approach to policy development can minimise adverse impacts. For example, the collaborative development of new or amended legislation and/or regulations will reduce the number unintended consequences.

The Panel understands the Department and NOPSEMA has continuously improved their ability to work collaboratively over the past three years. The development of new legislation by the Department includes

⁵⁰ ibid

consultation with NOPSEMA. While earlier consultation efforts were constrained by a short window for feedback, we understand that this has improved and that NOPSEMA believes that it has the opportunity to provide initial input, and provide detailed feedback to the Department. A key step in this overall improvement has been embedding Department personnel within NOPSEMA on secondment. This has streamlined communication channels and has facilitated better feedback loops.

The Department has identified that opportunities to work collaboratively with NOPSEMA, NOPTA and AMSA on areas of mutual interest have been missed. The Panel has made a recommendations in Sections 8.3.2 and 8.3.5 that the current Memorandum of Understanding between the agencies is revised and refreshed.

Beyond how the Department interacts with NOPSEMA, the issue of conferral has the potential to impact how NOPSEMA undertakes its operations. Developing a consistent conferral of powers model for all states will allow NOPSEMA to undertake planning now, in anticipation of future conferral. As its policy agency, the Department has a role to play in advocating a consistent approach to conferral. Note that NOPSEMA's credibility as an independent, competent and transparent regulator is discussed in Section 8.5: Toward a Social Licence to Regulate.

8.3.8 Industrial Associations and Unions

Like other stakeholder groups, the Australian Council of Trade Unions (ACTU) also raised the issue of NOPSEMA's transparency. The union perspective was that NOPSEMA lacks sufficient transparency in key areas such as access to safety case documentation and decision making processes. The ACTU stated: "There is a lack of full transparency on reporting in safety performance on its own regulatory activities. It has been difficult to assess NOPSEMA's effectiveness, in part because of the limited information available in the public domain".⁵¹ The Panel heard from the ACTU that NOPSEMA does not consult or engage with the general workforce in a meaningful or transparent manner. The role of transparency is further discussed in Section 8.5: Toward a Social Licence to Regulate.

NOPSEMA's annual reports and other publically available information includes information about investigations, activities and topic-based approach to inspections.

The ACTU reported low levels of trust with regards to NOPSEMA's effectiveness as a regulator. The submission from the ACTU reflects this opinion, observing that "NOPSEMA has never effectively engaged with the offshore unions". The union assessment is that NOPSEMA remains 'captured' by industry, due in large part to the financial relationship that exists to fund NOPSEMA via safety case and environment plan levies. "NOPSEMA are

⁵¹ Australian Council of Trade Unions (ACTU) written submission.

too closely aligned to the OHS agenda of employers”.⁵² The ACTU suggested that NOPSEMA addresses these trust issues in part by publishing the capabilities of its inspectors.

The ACTU perceived NOPSEMA was not taking adequate enforcement measures. “NOPSEMA fails to use the full suite of its regulatory tools at its disposal. In particular the prosecution rate has been too low given the severity of some of the safety breaches brought to attention. NOPSEMA should consider using a wider range of regulatory tools e.g. Improvement notices, etc.”⁵³ Enforcement is further discussed in Section 5.5.

8.3.8.1 HEALTH AND SAFETY REPRESENTATIVES

Industry health and safety representatives (HSRs) are an important link between NOPSEMA inspectors and the workforce. Engaging with HSRs builds trust between NOPSEMA and the industry stakeholders.

The ACTU believes NOPSEMA has no direct or effective mechanism to bring together HSRs. The ACTU written submission illustrates the challenge seen by the HSRs, “Given the inspector nature of the workforce many HSRs may be reluctant to call attention to themselves being seen to approach a NOPSEMA inspector directly, for fear of losing their jobs.” The need for a stronger link to HSRs was supported by the APPEA submission that indicated that a ‘key area for improvement is more engagement with the workforce and HSRs.’⁵⁴ APPEA acknowledges inspectors do make contact with HSRs on scheduled facility inspections, however they believe more engagement is needed. The APPEA Stand Together for Safety initiative and Annual HSR Forum provide avenues for NOPSEMA to engage in safety issues. However APPEA urges stronger support for the HSR forum from NOPSEMA. The Panel understands NOPSEMA has previously had an online portal for HSRs to communicate, however this is no longer active. The Panel also observed a lack of clarity in the NOPSEMA HSR guidance. Engagement with unions and HSRs is still occurring, but frequency remains an issue.

It is important that NOPSEMA continues to ensure that industrial associations have a forum to provide feedback on a regular basis and have access to NOPSEMA that compares with that of industry. The Panel believes that regular ongoing engagement with all stakeholders is a key component of any future improvement in NOPSEMA’s engagement processes, and its ability to act as a trusted regulator.

Finding: Given the central role of workplace consultation and the involvement of the workforce in safety case regulation, both APPEA and the ACTU are of the view more should be done to engage with the workforce and health and safety representatives. This could be through NOPSEMA sponsorship or co-

⁵² ibid

⁵³ ibid

⁵⁴ APPEA written submission.

sponsorship and leadership of the annual Health and Safety Representative Forum, refreshing the Health and Safety Representative Guidance notes and other means of communication.

Recommendation 16: NOPSEMA should provide more engagement mechanisms to collaborate with the workforce and health and safety representatives.

8.3.9 State Regulators

In Australia, the States and the Northern Territory regulates waters three nautical miles seaward from the territorial sea baseline. Beyond this boundary NOPSEMA has the responsibility to regulate oil and gas operations. The boundary can be seen in Figure 6. NOPSEMA collaborates with state regulators on a regular basis as oil and gas operations cover multiple jurisdictions. Multiple jurisdictions add regulatory burden to industry. One of the opportunities presented by the formation of NOPSEMA is for a more consistent and efficient regulatory system for all offshore oil and gas activity with conferral of powers from state to Commonwealth. The Panel understand state regulators have concerns relating to conferral of powers and ensuring their respective community interests are understood. Conferral is further discussed in 8.4 below.

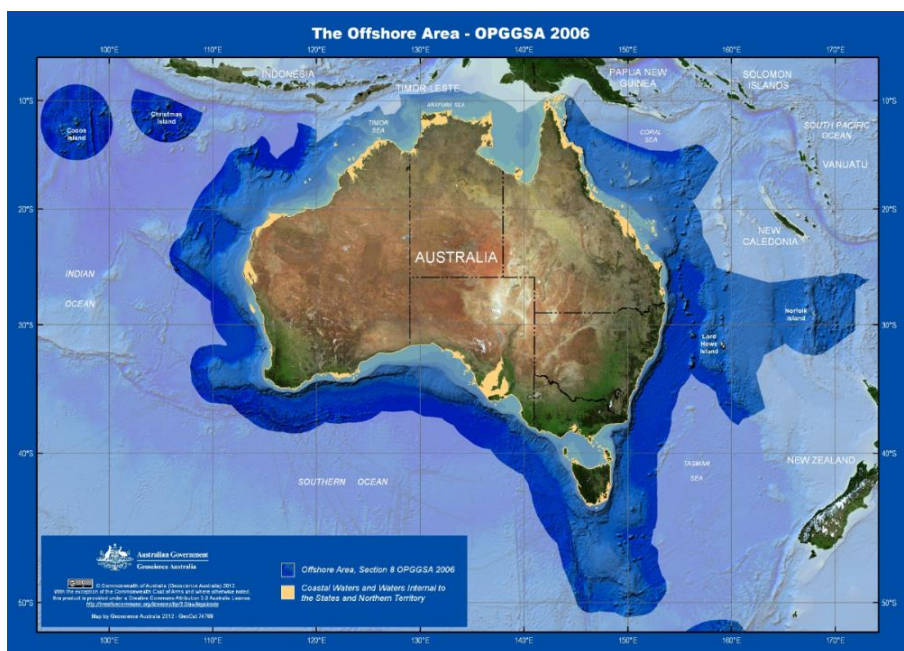


Figure 6: Commonwealth and State Waters⁵⁵

⁵⁵ *Scope of regulations jurisdiction*, National Offshore Petroleum Safety and Environmental Management Authority, <http://www.nopsema.gov.au/assets/document/Scope-of-regulations-jurisdiction-map-Geoscience-Australia-May-2012-Rev-0.pdf>

8.4 Conferral of Powers

One of the opportunities presented by the formation of NOPSEMA is a more consistent and efficient regulatory system. This could be achieved by the states and Northern Territory conferring ('conferral') powers and functions on NOPSEMA to regulate OHS, integrity and environmental management in designated coastal waters. This in turn would deliver a more consistent approach to regulation across safety, integrity and environmental management as well as across Commonwealth and state and Northern Territory boundaries. We heard industry stakeholders express support for conferral and heard examples of facilities that operate over multiple jurisdictions and are subject to a number of different regulators, each with their own requirements.

However, to fully realise these potential benefits requires the states and Northern Territory governments to confer upon NOPSEMA the power to regulate in their respective waters. At present Victoria is the only state to have conferred upon NOPSEMA the power to regulate safety and wells in its state waters, although South Australia and the Northern Territory are actively considering it.

However, some stakeholders expressed the view that before conferral could occur, NOPSEMA would need to explicitly demonstrate its capabilities as an effective regulator in state and Northern Territory waters. This includes building public trust and credibility in how NOPSEMA makes decisions, particularly in relation to environmental issues. We heard that NOPSEMA has demonstrable expertise in safety issues but that this has not been equally demonstrated in relation to managing the wider range of stakeholders with interests in environmental issues. These include commercial fisheries and other marine-based industries such as pearl harvesters and environmental NGOs.⁵⁶

The Panel believes that conferral will become more likely when NOPSEMA more fully demonstrates its organisational capabilities. In particular, the principles set out in the National Legislative Compliance Framework (NLCF) for regulators working in offshore petroleum provides a useful benchmark. These principles include helpfulness, accountability, transparency, consistency, effectiveness, efficiency and being seen to be making fair decisions. A discussion of how NOPSEMA aligns with these principles is in Section 8.5.1. We have characterised this as a need for NOPSEMA to achieve 'a social licence to regulate'.

Earning a social licence to regulate is the key to success of the case for conferral of powers. State regulators and their respective ministers will require assurance that respective community stakeholder concerns will be managed and addressed. There is an opportunity to educate community stakeholders on the role of NOPSEMA and the methodology used in decision making. In order to demonstrate to community stakeholders NOPSEMA's

⁵⁶ Damien Victorsen, *National Legislative Compliance Framework*, Noetic Solutions, 2011, <http://www.industry.gov.au/resource/Documents/upstream-petroleum/regulation-legislation/110721NLCF-ReportF.pdf>

capabilities and competence, NOPSEMA could consider publishing a summary of inspector capabilities and areas of expertise. This would assist community stakeholders to understand the breadth of experience within the regulator and the effectiveness by which NOPSEMA can assess risk. A social licence to regulate is further discussed in Section 8.5 below.

Finding: Conferral of powers is a complex issue. A major barrier is a lack of sufficient trust in NOPSEMA to appropriately regulate the environment, specifically the EPBC Act. The Panel found trust is an issue for state regulators, their respective ministers, the community and environment NGOs.

Finding: Each of the state and territory jurisdictions have different capabilities to carry out regulation of oil and gas activities independently. It is therefore likely that conferral will occur on a different timetable for each jurisdiction, and also less rapidly for conferral of environmental regulation than for safety and well integrity. The objective of full conferral will be facilitated by ensuring that the state and territory jurisdictions develop full confidence in NOPSEMA's capability to recognise the impacts to other users, and balances their concerns and priorities when regulating oil and gas activities.

Finding: Industry stakeholders generally support conferral, in particular those stakeholders which have facilities that operate over multiple jurisdictions. Conferral to a single regulator would reduce the regulatory burden of compliance.

Recommendation: As per Recommendation 13, NOPSEMA should develop a mechanism to provide greater transparency of decision making and assessments to stakeholders.

8.5 Toward a Social Licence to Regulate

As a regulator NOPSEMA must earn and maintain legitimacy to regulate. To achieve this, NOPSEMA needs the respect of its stakeholders, both the industry and community stakeholders, for its actions as a regulator for safety and environmental management. Stakeholders' acceptance of NOPSEMA's remit must extend to accepting outcomes that are not necessarily aligned with their interests. When stakeholders accept that NOPSEMA is effective, fair and acting in the interests of the broader community, NOPSEMA has earned its social licence to regulate. Earning the licence is aligned with being a mature and competent regulator and a significant measure of the trust placed in NOPSEMA by the community. The following sections outline what good regulation looks like and how NOPSEMA is performing with regard to being a trusted regulator.

8.5.1 What is Good Regulation?

Good regulation where the regulator is trusted and acts in an appropriate and transparent manner that is underpinned by key principles. These include:

- + **Helpfulness.** Indicating it is the role of regulators to secure compliance with the regulatory regime through appropriate engagement rather than being a barrier or burden to the industry.
- + **Accountability.** Suggesting that regulators need to be responsible for their actions and decisions as well as the use of their authority and public resources.
- + **Transparency.** Indicating that regulators need to be open and clear in all dealings, both internally and with external stakeholders. This will support their ability to be accountable and helpful.
- + **Consistency.** Meaning that regulators should undertake their regulatory practices in a way that is predictable to industry stakeholders and the community. It also means their actions are in proportion to the risks they are managing.
- + **Efficiency.** Which asks regulators to perform their functions in a way that makes best use of the resources available to them. This means applying risk management approaches to compliance monitoring activities and ensuring that it employs suitably qualified, skilled and experienced personnel.

These principles form the basis of the National Legislative Compliance Framework, developed in 2011 by the then Department of Resources, Energy and Tourism in consultation with Australian regulators, and is based on common concepts about what constitutes good regulation. Common factors include that regulation should:

- + aim to achieve the objectives of the legislation and regulations being administered
- + facilitate compliance with the legislation and regulation through a combination of education, engagement and enforcement tools
- + achieve the greatest degree of compliance with the legislation and regulation at the minimum cost to all parties (that is, the regulator, the regulated entities and the tax-paying community).

The National Legislative Compliance Framework was developed on the concept that the key principles are inextricably linked to each other. These principles give practical effect to the concept of a social licence to regulate.

NOPSEMA needs to continue to demonstrate to all stakeholders that it is a mature regulator. In part this can be achieved by the demonstrable display of the principles outlined in the above. Feedback from stakeholders indicates that with respect to all of these principles, NOPSEMA has made significant improvements since the last review was undertaken. Opportunities do exist for NOPSEMA to improve how it communicates its actions and

activities against these principles. Engagement with stakeholders that communicates how these principles are implemented should build confidence that NOPSEMA is undertaking its role beyond the measure of simply paying lip service to motherhood statements. A social licence to regulate can only be built if NOPSEMA is seen to operate independently competently and transparently.

HELPFULNESS

Feedback from stakeholders indicates that NOPSEMA is seeking compliance through engagement whenever possible. NOPSEMA has been seen to implement changes that increase its capacity to provide useful assistance and guidance to a range of stakeholders. NOPSEMA is continuing to meet face to face and presenting forums to promote good regulatory behaviour. The Panel heard examples of NOPSEMA running workshops in June 2015 in conjunction with the International Association of Drilling Contractors (IADC) and with industry on the reference case for use of dispersants in oil spill preparedness, and NOPSEMA senior staff visiting Kangaroo Island, South Australia to speak with the local council and community. Helpfulness does not mean relaxing regulatory requirements. Rather, it is about the general culture of an organisation. In this regard, the Panel believes that NOPSEMA's senior leadership team and personnel are committed to proactively engaging with stakeholders.

NOPSEMA is producing guidance that assists industry stakeholders to understand their regulatory obligations. As previously described in Section 5.4: Transition from NOPSA to NOPSEMA, there has been criticism of NOPSEMA's helpfulness in relation to environment plans. An important component of being a helpful regulator is providing easy to understand guidance, application forms and so forth. The Panel believes that NOPSEMA can do more to use plain English and consistent language in its communications including guidance notes and can streamline a number of processes including development of environment plans.

ACCOUNTABILITY

Accountability describes the concept of oversight or supervision both within an organisation and of the organisation itself. It requires that individuals or organisations are held to account for the execution of their responsibilities, decisions and actions.

In relation to its obligations under the OPGGS Act, NOPSEMA has demonstrated that its organisational structure and approach to risk and governance promotes a culture of accountability that is appropriate to its role as a regulator within a complex environment and with a diverse range of stakeholders. NOPSEMA's governance is further discussed in Section 6.0: Corporate Governance.

Accountability means that a regulator can explain the nature and reasons for decisions to those affected by the decisions. The Panel found that NOPSEMA is meeting this obligation. There are areas for improvement, as outlined in Section 8.3.3. Some stakeholders with environmental concerns believe that there is a lack of

accountability which negatively impacts environmental protection. NOPSEMA is actively working to remediate these criticisms. Engagement with environmental groups and communities has increased, and NOPSEMA appears to be working proactively to demonstrate accountability in the multi-part arena of environment management.

TRANSPARENCY

Transparency describes the concept of openness to scrutiny. It also describes willingness to report and exchange information. Transparency with information will often support accountability.

Within the guidelines established by the Office of the Australian Information Commissioner in 2011, NOPSEMA is conducting operations in a reasonable and appropriately transparent way. The Panel believes that NOPSEMA provides information openly when there is no legal need to protect that information, as discussed in Section 6.2.3: Sharing of Information and in Section 5.5.6: Enforcement vs Education tools. NOPSEMA has an established Freedom of Information policy and process, and is proactive in providing useful, and understandable information via its website.

There has been some criticism that NOPSEMA's decision making processes are insufficiently transparent, especially with regard to decision making on environmental issues. As outlined previously in this report, there are concerns from unions, environment NGOs, state regulators and the community relating to the transparency of decision making process of NOPSEMA and the reasoning for acceptance of permissioning documents and the level of detail in the permissioning documents made available to the public. The Panel understands that NOPSEMA is aware of this criticism and is working to remediate it.

In addition, NOPSEMA has received much criticism in regard to its newly conferred environmental responsibilities, although the broad consensus is that NOPSEMA has made positive improvements, for example, in overall oil spill preparedness. Other improvements are discussed in Section 5.4.1. Policy documents are available to the public. These include assessment, inspection and investigation policies for the permissioning areas of safety, well integrity and the environment. Annual reporting by NOPSEMA provides the public with information on its performance as a regulator.

CONSISTENCY

Consistency in the context of regulatory practise describes the idea that a responsible individual or organisation will perform its functions in ways that are predictable to industry stakeholders and the community. This means that regulators would apply comparable processes and criteria to examining the compliance of all stakeholders.

As discussed in Section 5.3.3, the Panel is aware of stakeholder concerns regarding the consistency of NOPSEMA's approach. This includes a perceived lack of consistency in how inspectors conduct their activities, an important issue that NOPSEMA appears to understand.

Feedback indicates that NOPSEMA's corporate governance approach provides appropriate mechanisms for ensuring consistency in NOPSEMA's regulatory activities. Mechanisms include annual peer reviews of safety case approvals and environment plans. NOPSEMA has made clear statements regarding its expectations of regulated entities, and the Panel has heard consistent feedback that stakeholders understand their obligations to NOPSEMA. Furthermore, NOPSEMA appears to be consistent in its proportionality, with no suggestion from stakeholders that NOPSEMA is biased or is favouring one group of stakeholder over another. NOPSEMA has a clear set of policies and processes to ensure that it regulates in a consistent manner, regardless of a stakeholder's size, history and other characteristics.

EFFECTIVENESS/EFFICIENCY

Effectiveness describes the ability of an individual or organisation to achieve its objectives (that is, to have an impact). In the context of the OPGGS Act and other relevant legislation, effectiveness means regulators are able to achieve (or facilitate achievement of) the objectives of the Act and its Regulations. NOPSEMA is currently meeting the objectives of the OPGGS Act in that it ensures exploration and recovery of petroleum is carried out safely and to environmental standards. Feedback received by the Panel indicates there is agreement that NOPSEMA's approach to enforcement is effective, as discussed in Section 5.5. This is consistent with feedback received during the 2011 review.

8.5.2 A Trusted Regulator

When assessed against the principles underpinning the National Legislative Compliance Framework, NOPSEMA appears to be acting as a good regulator, with broad agreement it is effective in its mandated role. While not free of criticisms, NOPSEMA has indicated a readiness to address them. This will involve building trust through greater engagement with stakeholders.

Earning and maintaining a social licence to regulate can only occur when a regulator's mandate includes mechanisms for engagement with stakeholders. Organisations seek to build trust by establishing and maintaining engagement with their stakeholders, often informally, including with community stakeholders that may not be the subject of the regulator's operations. Community stakeholders must have confidence they can approach the regulator and their concerns be heard, understood and respected and that the Regulator will enforce compliance with regulations. The regulator must be seen to be trustworthy, independent (including free of regulatory capture and political agendas) and competent. If these conditions are met, it can be argued a regulator has a social licence to regulate. Maintaining that licence will require the regulator to consistently demonstrate it takes

community priorities, concerns and issues into account when making decisions and enforces industry compliance with regulations.

Lack of trust is the key barrier to NOPSEMA earning a social licence to regulate. The Panel understands some stakeholders have limited trust in NOPSEMA's decision making process. Consequently, NOPSEMA's communications with all stakeholders must aim to build trust.

To do this, NOPSEMA will need to improve the way in which it communicates evidence and reasoning relating to its regulatory decisions. All communication must be principled, that is, honest, respectful, simple and credible. All communication must be objective and evidence-based. NOPSEMA has recognised the importance of respectful engagement, and the Panel believes it is essential that NOPSEMA continues to orientate its engagement toward demonstrating competence, credibility, fairness and empathy.

8.5.3 A Social Licence to Regulate

Defining whether a regulator has earned a social licence to regulate is difficult. A social licence to regulate is not a zero sum assessment, nor is it binary. The social licence to regulate is a social construct; it is the face of the regulator that needs to be constantly maintained. Earning and maintaining the social licence to regulate is the catalyst for a regulator to continually improve. Stakeholder perception is critical and invariably stakeholders will have differing opinions.

NOPSEMA appears to be building trust, and committed to acting as a good regulator. Improvements are being made in how helpful NOPSEMA is by the guidance it provides, how accountable it is for its actions, and the level of transparency in its decision making, its consistency on both safety and environmental issues and its overall effectiveness. It is important this continues as earning a social licence to regulate demonstrates that a regulator is capable of undertaking more complex regulator activities, for example taking on additional powers to regulate all Australian coastal waters.

Some environmental groups do not see NOPSEMA as having earned a social licence to regulate. They may agree this is likely to occur, but has not yet happened. This reflects the complex landscape of environmental management and the fact NOPSEMA has far more experience and an effective track record with safety management. This results in NOPSEMA gaining traction with stakeholders whose priorities align with safety as it has the ability to demonstrate an improving safety performance.

As discussed, conferral of powers and the social licence to regulate are intrinsically linked. However, they are mutually exclusive, as it is possible to achieve one without the other. In addition, they are complementary, in that developing a social licence to regulate will support the transition to conferral of powers. This is because NOPSEMA will be seen to be addressing the stakeholders' concerns raised throughout this report.

A final consideration is the relationship between a social licence to regulate and a social licence to operate. Meeting regulatory obligations is one of the ways an industry stakeholder, in particular Duty Holders, can demonstrate that they are good corporate citizens. A strong regulator will help build a strong industry and strong compliance with safety case and environment plans and can focus an organisation on the right behaviours that help earn a social licence to operate. For example, meeting environmental regulations increases broader community confidence that a company is operating both commercially and with social responsibility. If a regulator such as NOPSEMA earns and maintains its social licence to regulate, then its guidance to industry and other stakeholders will have increased weight. As such, meeting those requirements (as set out by a regulator who has earned a licence to regulate), will likewise carry increased gravitas in the eyes of the community. By earning its social licence to regulate there is an opportunity for NOPSEMA to assist its stakeholders to earn their social licences to operate. This reciprocal development has potential benefits to all parties.

8.6 Conclusion on Stakeholder Engagement

NOPSEMA's interaction with external parties has improved since the last review. NOPSEMA has demonstrated that it understands the importance of principle-based stakeholder engagement. The Panel found that NOPSEMA has made improvements in the way that it engages with its stakeholders including environmental stakeholders. Improving communication channels, building trust and providing greater transparency regarding the reasons for NOPSEMA's decisions were all identified as areas for further improvement. This feedback was consistent across most stakeholders. This provides NOPSEMA with clarity on its key objective for NOPSEMA in the coming years. The Panel believes NOPSEMA is aware of, and accepting of, the criticism it has received during the review. NOPSEMA has already commenced measures aimed at providing greater transparency. It is identifying appropriate mechanisms for engagement with all of its stakeholders, and appears to be taking proactive steps to address the need for better engagement.

Demonstrating proactive improvements is important as NOPSEMA seeks to reach agreement on a timetable for conferral of powers. Conferral will become more likely when NOPSEMA can demonstrate that its capability and capacity as a trusted regulator. This means that NOPSEMA is undertaking a principled approach, where it can demonstrate helpfulness, accountability, transparency, consistency, effectiveness and efficiency and be seen to be making fair decisions. These principles underpin the social licence to regulate.

Earning a social licence to regulate will facilitate the conferral of powers and means that NOPSEMA's stakeholders have trust in the regulator's ability to act fairly, consistently and in a principled manner. The Panel does not believe that NOPSEMA has earned that social licence as yet. However, the steps already underway to better engage with stakeholders and to demonstrate fairness, transparency and consistency indicate this is achievable.

9.0 CONCLUSION

The primary focus of this review has been an assessment of the operational effectiveness of NOPSEMA. On the basis of the research, stakeholder consultation and analysis of the submissions received by the Panel, the Panel's overall conclusion is that NOPSEMA is an effective regulator that has made positive contributions to improving safety, well integrity and managing Australia's offshore environment.

Prior to this review, NOPSEMA's predecessor, NOPSA, was subject to two triennial reviews. The Panel has reflected on the progress of NOPSEMA since those reviews. In this regard, NOPSEMA has demonstrated that it is undertaking continuous improvements in safety, well integrity and environment. In the safety space, the Panel found that NOPSEMA was largely effective in discharging its functions in relation to health and safety (including addressing major accident events), wells and facility integrity and meeting its statutory timeframes. The fact NOPSEMA consistently delivers within its statutory timelines is a positive reflection on the effectiveness of the organisation. NOPSEMA's internal governance was reviewed, and the Panel found NOPSEMA has rigorous internal procedures and is well equipped to comply with the PGPA Act.

With regards to NOPSEMA's capacity to respond to changes in industry and emerging issues, the Panel found NOPSEMA appears capable of addressing issues such as new technology, specifically floating liquefied natural gas. There has been proactive and effective engagement with Duty Holders that intend to use new technology. The Panel found NOPSEMA has encouraged legislative change to address early engagement of the safety case issues at the design stage to improve the process of addressing inherent safety through design.

The past three years have not been without challenges. The most notable being the integration of environmental regulation into NOPSEMA. There is broad consensus that this was a difficult transition and NOPSEMA initially struggled to manage its new responsibilities. As the period of transition comes to a close, the Panel is of the firm view that NOPSEMA has put this challenging period behind it, and that it is now being recognised as an effective regulator.

Challenges still exist and NOPSEMA must continue to address the issues which impede its ability to earn a social licence to regulate. These include the perception that NOPSEMA's decision making on environmental matters is not sufficiently transparent. A perception exists that NOPSEMA's overemphasis on its independence was at the expense of clear communications and advice to industry. This strong independence focus led to a persistent lack of shared understanding in some parts of industry.

Relationships with all stakeholder groups can and should be improved. The strong working relationship NOPSEMA has with industry should be reflected in its relationship with all of its stakeholders. NOPSEMA must recognise that with its new responsibilities for the environment comes a large and diverse set of new

stakeholders. NOPSEMA has a responsibility to act in the best interest of all its stakeholders. This means addressing these diverse concerns with respect, with interactions conducted in a transparent manner.

The move toward earning a social licence to regulate should be a key objective for NOPSEMA in the coming years. NOPSEMA is aware of the need to improve the level of stakeholder trust. Earning and maintaining the social licence to regulate is a complex challenge, and will occur incrementally. The Panel encourages NOPSEMA to remain open to input from its stakeholders, to remain at the forefront of effective regulation and to work to continue to balance the most appropriate mechanism for regulations.

In conclusion, the Panel extends its thanks to all of the stakeholders who provided their time to provide input into the review process. Without this input, and without NOPSEMA's transparent input, the Panel would not have been able to make the informed and evidence-based recommendations in this review.

ANNEX A: 2015 NOPSEMA OPERATIONAL REVIEW TERMS OF REFERENCE

In accordance with Section 695(2) of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cwlth), the 2015 Operational Review of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) will give consideration to:

1. The effectiveness of NOPSEMA in bringing about improvements in:
 - a. The occupational health and safety of persons engaged in offshore petroleum operations or offshore greenhouse gas storage operations.
 - b. The structural integrity of facilities, wells and well-related equipment.
 - c. Offshore petroleum environmental management including the effectiveness of the integration of environmental management into NOPSEMA's functions since 1 January 2012 (but not specific issues to be reviewed as part of the 2015 Review of the Environmental Streamlining Program).
 - d. Offshore greenhouse gas storage environmental management.

This will include NOPSEMA's performance against its functions and powers as set out in the OPGGS Act and regulations and consideration of opportunities consistent with the Government's deregulation agenda.
2. NOPSEMA's governance arrangements in the context of its expanded functions and the requirements of the *Public Governance, Performance and Accountability Act 2013* (Cwlth).
3. NOPSEMA's capacity to respond to changes in industry including emerging issues such as changes in industry operations and new technologies.
4. NOPSEMA's interaction with external parties (including industry, federal, state and territory government bodies, other stakeholders and the NOPSEMA Advisory Board) to improve regulatory outcomes in an objectives-based regulatory environment.

This review should have regard to the findings of related reviews including the 2008 and 2011 *NOPSA Operational Reviews*, the *Government Response to the Montara Commission of Inquiry* and the 2014 *ANAO Report into the Establishment and Administration of NOPSEMA*.

ANNEX B: EXPERT PANEL BIOGRAPHIES

Ken Fitzpatrick (Chairman)



Ken Fitzpatrick brings over 30 years' experience in the oil and gas industry in Australia and overseas, having held a range of senior positions responsible for development, and production.

Ken was CEO of PTTEP Australasia from 2011 to 2014 and has worked in senior positions in Ampolex, Mobil, Nexen and Woodside. He is a past WA State Chairman for the Australian Petroleum Production and Exploration Association (APPEA) and was a member of the APPEA Montara/Macondo task force steering committee.

Ken graduated with Bachelor of Chemical Engineering from Newcastle University and a Masters of Business Administration from Deakin University.

Photo Credit: PTTEP Australasia

David Agostini



David Agostini is a consultant for the oil and gas industry and is currently serving as the Chairman of the Western Australian Energy Research Alliance (WA:ERA).

David is an Adjunct Professor for the School of Oil and Gas Engineering at the University of Western Australia. He has previously chaired the Australian Resources Research Centre (AARC) advisory group, was a member of the COAG Energy Review Committee and has authored two previous reports in relation to NOPSEMA (NOPSA). In 2009 he inspected and co-authored the 'Offshore Petroleum Safety Regulation – Varanus Island Incident Investigation' for the Western Australian Minister for Mines and Petroleum, and co-authored 'Offshore Safety Regulation:

Better practice and the effectiveness of the National Offshore Petroleum Safety Authority' (NOPSA).

He has worked in the oil and gas industry since 1957, after graduating from the North Carolina State University with geological engineering qualifications. Starting at Texaco he worked as a Petroleum Engineer and Production Specialist, and later at Woodside in a similar capacity. He then served as Deputy Strategy Manager for Shell in The Hague, with oversight of downstream refining and LNG operation in the USA, Africa and Middle East. He returned to Woodside to manage LNG operations and was involved in marketing LNG into Asia.

Photo Credit: WA ERA

Peter Wilkinson



Peter Wilkinson has extensive experience in upstream and downstream petroleum in roles encompassing safe and reliable operations as GM Operational Excellence and Risk in Caltex Australia; significant organisational change experience in designing and building the National Offshore Petroleum Safety Authority, (NOPSA – now NOPSEMA) and safety regulation as a founder member of the UK's Offshore Safety Division of the Health and Safety Executive formed in the aftermath of the Piper Alpha disaster.

Since 2009 Peter has pursued an international consulting career in the UK, Canada, China, USA, New Zealand, Timor Leste with clients such as

BHPBilliton Petroleum, Glencore-Xstrata, Woodside and Origin Energy amongst others. He is under contract to the United States Government providing advice to the US Chemical Safety Board (CSB) on the BP Macondo/Deepwater Horizon disaster and he has just finished an assignment on behalf of the Australian Government which spanned 2.5 years working with PTTEP Australasia on their organisational transformation following the 2009 Montara blowout.

Peter has written and published a variety of papers and articles on systems thinking and the management of safety in the oil and gas industry. He is a Chartered Fellow of the Institute of Safety and Health (UK), a member of the Safety Institute of Australia and the Society of Petroleum Engineers. Peter currently serves as a member of the Australian Government's Nuclear Safety Committee, an advisory board to the CEO of ARPANSA, the nuclear safety and radiological protection regulator.

ANNEX C: STATUS ON RECOMMENDATIONS FROM PREVIOUS NOPSEMA REVIEWS

Since its inception NOPSEMA has been the subject of a number of reviews in an effort to determine the effectiveness of the organisation, as well as making recommendations for improvements.

Most recently the Australian National Audit Office (ANAO) undertook an independent performance audit of NOPSEMA entitled the *Establishment and Administration of the National Offshore Petroleum Safety and Environmental Management Agency*.

The Table C1 outlines the status of the recommendations and findings from the previous review.

Table C1: Response and Progress from Previous Reviews

Review Or Inquiry		Number of Recommendations or Findings Assigned to		NOPSEMA's Response to Findings	Status of Recommendations or Findings
		NOPSEMA	DOIS		
ANAO Review 2014 ⁵⁷	Recommendations	3		Agree or agree in part	No new actions required, already in progress
	Findings:	24		Agree or agree in part	No new actions required, already in progress
2011 Triennial Review ⁵⁸	Recommendations	6	3	Agree or agree in part	Completed
	Findings:	2	1	Agree	Completed

⁵⁷ Mark Rodrigues, Amanda Reynolds, Reece Pate, Jay Reid and Mark Simpson, *Establishment and Administration of the National Offshore Petroleum Safety and Environmental Management Authority*, 2014, http://www.anao.gov.au/-/media/Files/Audit%20Reports/2013%202014/Audit%20Report%2038/AuditReport_2013-2014_38.pdf

⁵⁸ Chris Raper, Agu Kantsler and Robin Stewart Crompton, *Second Triennial Review of the Operational Effectiveness of the National Offshore Petroleum Safety Authority*, National Offshore Petroleum Safety and Environmental Management Authority, 2011, <http://www.nopsema.gov.au/assets/Publications/Report-Second-Triennial-Review-of-NOPSA-text-and-submissions.pdf>

ANNEX D: STAKEHOLDERS CONSULTED

The Panel consulted with 39 organisations. The Panel collectively conducted over 50 interviews with stakeholders in the following Table D1.

Table D1: List of Organisations Consulted for the Review

Organisations Consulted	
Apache Energy Ltd	National Offshore Petroleum Safety and Environmental Management Authority – Board
Australian Council of Trade Unions (ACTU)	National Offshore Petroleum Safety and Environmental Management Authority – Staff
Australian National Audit Office (ANAO)	National Offshore Petroleum Titles Authority (NOPTA)
Australian Government Department of Industry and Science	Northern Territory Department of Mines and Energy
Australian Manufacturing Workers Union	Origin Energy Ltd
Australian Maritime Safety Authority (AMSA)	Pearl Producers Association (PPA)
Australian Petroleum Production and Exploration Association (APPEA)	Petroleum Geo-Services (PGS) Ltd
BHP Billiton Ltd	PTTEP Australasia Pty Ltd
BP Australia Ltd	Santos Ltd
Chevron Australia Pty Ltd	Shell Australia Pty Ltd
ConocoPhillips Australia Pty Ltd	South Australian Department of State Development
ENI Australia Ltd	Technip Oceania Pty Ltd
(ExxonMobil) Esso Australia Pty Ltd	Vermillion Resources Australia Pty Ltd
Fugro Australia Pty Ltd	Victoria Department of Economic Development
INPEX Australia Pty Ltd	Western Australian Department of Mines and Petroleum
International Association of Drilling Contractors	Western Australian Energy Research Alliance (WAERA)
International Foundation for Animal Welfare (IFAW)	Western Australian Fishing Industry Council (WAFIC)
International Marine Contractors Association (IMCA)	Wilderness Society of South Australia
Lloyd's Register Group Ltd	Wild Migration Ltd
Maritime Union of Australia (MUA)	Woodside Energy Ltd
Murphy Oil Corporation	

ANNEX E: LIST OF WRITTEN SUBMISSIONS

Table E1: List of Organisations that Submitted Written Responses for the Review

Organisations that Submitted Written Submissions	Available Online?
Apache Energy Ltd	No
Australian Council of Trade Unions (ACTU)	Yes
Australian Department of Environment	No
Australian Institute of Marine Power Engineers (AIMPE)	Yes
Australian Petroleum Production and Exploration Association (APPEA)	Yes
Australian Southern Bluefin Tuna Industry Association (ABSTIA)	No
BP Developments Australia	Yes
ConocoPhillips Australia Ltd	No
Fugro Australia Pty Ltd	No
International Marine Contractors Association (IMCA)	Yes
IMCA Survey Response. The Panel would like to acknowledge and thank IMCA for collating a survey to gather member responses for the review	No
INPEX Australia Pty Ltd	No
International Fund for Animal Welfare (IFAW)	Yes
Maritime Union of Australia (MUA)	No
National Offshore Petroleum Titles Administrator (NOPTA)	Yes
PTTEP Australasia Pty Ltd	No
Roc Oil Company Australia	No
South Australian Department of State Development	No
Western Australian Department of Mines and Petroleum	No
Western Australian Fishing Industry Council (WAFIC)/Pearl Producers Association (PPA)	Yes
Wild Migration Ltd	Yes
The Wilderness Society	Yes
Woodside Energy Ltd	No

The Panel would like to thank all parties that submitted a written submission to the review. The non-confidential submissions will be released on the Department of Industry and Science website at:

<http://industry.gov.au/resource/UpstreamPetroleum/Pages/NationalOffshorePetroleumSafetyandEnvironmentalManagementAuthority.aspx>

ANNEX F: LEGISLATIVE CHANGES IMPACTING NOPSEMA

Table F1: Summary of Changes to the OPGGS Act and Other Legislation Impacting the Regulatory Responsibilities of NOPSEMA

Legislative Developments
October 2011: <i>Offshore Petroleum and Greenhouse Gas Storage Amendment (National Regulator) Act 2011</i> (Cwlth) + NOPSEMA to replace NOPSA, with an environmental protection role + Power to enter into contracts for regulatory services to foreign government agencies and to the states and the NT for both offshore and onshore + Administration of safety zones around facilities + Power to give directions + Appointment of petroleum project inspectors + Well Regulations to become 'listed OHS laws' under s.638 of OPGGS Act + Functions include compliance and enforcement in relation to all obligations of persons under the OPGGS Act and regulations + Establishment of the National Offshore Petroleum Titles Administrator (NOPTA) October 2011: <i>Offshore Petroleum and Greenhouse Gas Storage Regulatory Levies Amendment (2011 Measures No.2) Act 2011</i> (Cwlth) + Provision for cost-recovery levies on Titleholders in Commonwealth waters, or state or Northern Territory waters where power has been conferred to NOPSEMA, for environmental approvals December 2011: <i>Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009</i> + Amendments will allow for NOPSEMA to be provided with environmental management regulatory functions and powers

March 2013: *Offshore Petroleum and Greenhouse Gas Storage Amendment (Compliance Measures) Act 2013* (Cwlth)

- + Enabling the parties responsible for administering the OPGGS Act to share information in appropriate circumstances

The provisions below were linked to the passage of the *Regulatory Powers (Standard Provisions) Bill 2014* which received ascent in July 2014

- + The introduction of a civil penalty regime
- + Increasing current penalty levels to bring them in line with other major hazard legislation
- + Harmonisation of OHS penalties with the *Work, Health and Safety Act 2011* (Cwlth)
- + Streamlining of NOPSEMA's inspectorate powers and merging of categories of inspectors into a single 'NOPSEMA inspector'
- + Redrafting sections of the OPGGS Act relating to the standard monitoring powers and investigations powers in the proposed *Regulatory Powers (Standard Provisions) Bill 2012* (Bill ascended in 2014)
- + Insertion of a new Schedule which confers monitoring powers on NOPSEMA inspectors with respect to the obligations of petroleum Titleholders under environmental management laws

May 2013: The *Offshore Petroleum and Greenhouse Gas Storage Amendment (Compliance Measures No.2) Act 2013* (Cwlth)

- + Implementing an explicit 'polluter pays' obligation in the OPGGS Act and a third party cost recovery mechanism
- + Clarifying requirements in the OPGGS Act to ensure that the maintenance of sufficient financial assurance is compulsory
- + Enabling matters relating to the service of documents under the OPGGS Act or legislative instruments to be provided for in the Regulations under the OPGGS Act
- + Enabling administrative arrangements for taking eligible voluntary actions when there is more than one registered holder of a title to be carried through into legislative instruments under the OPGGS Act

The provisions below were linked to the passage of the *Regulatory Powers (Standard Provisions) Bill 2014* which received ascent in July 2014

- + Implementing a range of alternative enforcement mechanisms
- + Enabling NOPSEMA inspectors to issue environmental prohibition notices and environmental improvement notices to require petroleum Titleholders to take action where required to remove significant threats to the environment

November 2013: *Offshore Petroleum and Greenhouse Gas Storage (Environment) Amendment (Financial Assurance) Regulations 2014*

- + Amendments require Titleholders to maintain sufficient financial assurance to meet the costs, expenses and liabilities that may arise in connection with carrying out petroleum activities among other activities
- + On 1 January 2015, Titleholders will have to demonstrate to NOPSEMA that they meet the financial assurance requirements of section 571(2) of the OPGGS Act as a prior condition of acceptance of an environment plan

February 2014: *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009*

- + NOPSEMA became the sole environmental regulator of petroleum and greenhouse gas activities in Commonwealth waters; in accordance with the endorsement of NOPSEMA's environmental authorisation process by the Commonwealth Minister for the Environment under Part 10, Section 146 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act)
- + Inclusion of an offshore project proposal concept for new development activities, including a mandatory minimum public comment period of four weeks
- + Reinforcement of the 'polluter pays' principle through transfer of all environmental compliance responsibilities from the activity operator to the Titleholder
- + Greater transparency of NOPSEMA's environmental management assessment processes
- + The ability for NOPSEMA to request further written information from a Titleholder in relation to an environment plan submission
- + Clarified and strengthened environmental performance and incident reporting requirements

October 2014: *Regulatory Powers (Standard Provisions) Act 2014* (Cwlth) (*the Regulatory Powers Act*)

- + New provisions to relevant to NOPSEMA's regulatory operations, contained in the *OPGGS (Compliance Measures) Act 2013* (Cwlth) and the *OPGGS Amendment Act 2013* (Cwlth) gave new enforcement powers for NOPSEMA inspectors

ANNEX G: NOPSEMA STAFF TRAINING

The Panel reviewed information on the training of NOPSEMA’s personnel. Training is provided by NOPSEMA in two ways; training for newly recruited personnel and training for all staff in the period covered by this review.

One area for improvement is further training in public service training influencing skills for staff, in relevant roles and responsibilities interfacing with stakeholders. This is discussed further in Section 5.2.4.

This information shows NOPSEMA staff have received training in the following areas:

- + The NOPSEMA Code of Conduct

+ Induction process and familiarisation with NOPSEMA requirements

+ Objective (records) and other relevant systems training

+ Fraud and corruption control

+ Freedom of Information Act and Privacy Act requirements

+ Public Interest Disclosure Act requirements

+ Advanced Safety Management

+ Fundamentals of Process Safety

+ FLNG bespoke training
- + Further Offshore Emergency Training

+ Certificate IV in Government (Statutory Compliance) (all NOPSEMA inspectors)

+ Certificate IV in Government (Investigations) (all NOPSEMA inspectors)

+ Ethics for Australian Public Service employees

+ Security awareness

+ Contracts and Procurement

+ Environment course training

+ Layer of Protection Analysis

The Table G1below outlines the number of training, workshops, seminars, conferences and forums attended by NOPSEMA employees over the review period.

Table G1: Summary of NOPSEMA Staff Training from 2012-2014

Year	Training Courses Attended	Workshops/Seminars Attended	Conferences/Forums Attended
2012	50	9	27
2013	47	14	9
2014	33	7	7

ANNEX H: STAKEHOLDERS AND TYPE OF ENGAGEMENT

Table H1: Stakeholders and Regular Type of Engagement

Stakeholder	Required Type of Engagement	Authority for engagement e.g. OPGGS Act, s.647.	Form of Engagement
Commonwealth Minister	+ Minister may issue written policy directions to NOPSEMA + NOPSEMA is to make OHS reports and recommendations to the Minister + NOPSEMA reports to the Minister on investigations relating to OHS + NOPSEMA reports to the Minister on investigations relating to structural integrity + NOPSEMA reports to the Minister on investigation relating to environmental management + NOPSEMA provides advice and recommendation regarding the responsible Minister's performance on matters relating to offshore greenhouse gas storage	+ OPGGS Act, s.647 + OPGGS Act, s.646(g(i)) + OPGGS Act, s.646(e(ii)) + OPGGS Act, s.646(ge) + OPGGS Act, s.646(gm) + OPGGS Act, s.646(gp)	+ Conformance with policy direction and issuing of NOPSEMA statement of intent + Provision of reports + Provision of investigation reports relating to OHS + Provision of investigation reports relating to structural integrity + Provision of investigation reports relating to environmental management + Provision of information, assessments, analysis, reports, advice and recommendations
NOPSEMA Board	+ CEO must: + Request Board's advice on strategic matters relating to the	+ OPGGS Act, s.667	+ CEO may attend board meetings and provide reports, documents or

Stakeholder	Required Type of Engagement	Authority for engagement e.g. OPGGS Act, s.647.	Form of Engagement
	performance of NOPSEMA's functions + Have regard to the advice given by the Board + Keep Board Informed of NOPSEMA's operations and provide reports, documents and information to the Board as reasonably required		information
Department of Industry and Science	+ NOPSEMA is to cooperate with other Commonwealth agencies having functions relating to regulated operations	+ OPGGS Act, s.647 + OPGGS Act, s.646(g(i)) + OPGGS Act, s.646(e(ii)) + OPGGS Act, s.646(ge) + OPGGS Act, s.646(gm)	+ CEO participation at quarterly agency heads meeting + Provision for quarterly reports + Regular engagement on proposed changes to legislation and regulations
Other Commonwealth government departments and agencies	+ NOPSEMA is to cooperate with other Commonwealth agencies having functions relating to regulated operations	+ OPGGS Act, s.646(h(ii))	+ NOPSEMA CEO is a member of AMSA's Advisory Committee + Provision of quarterly report for the Department of the Environment

Stakeholder	Required Type of Engagement	Authority for engagement e.g. OPGGS Act, s.647.	Form of Engagement
National Offshore Petroleum Titles Authority (NOPTA)	+ NOPSEMA to cooperate with the Titles Administrator in matters relating to the administration and enforcement of the OPGGS Act	+ OPGGS Act, s.646(gr)	+ NOPSEMA provides advice to NOPTA concerning applications for surrender of title + NOPSEMA and NOPTA have an agreement for appointing and deploying NOPSEMA appointed inspectors for the purpose of NOPTA functions and powers
State/Northern Territory ministers, government departments and agencies	+ NOPSEMA is to make OHS reports and recommendations to the Minister + NOPSEMA reports to the Minister on investigations relating to OHS + NOPSEMA reports to the Minister on investigations relating to structural integrity + NOPSEMA reports to the Minister on investigation relating to environmental management + NOPSEMA is to cooperate with State and NT agencies having functions relating to regulated operations	+ OPGGS Act, s.646(g(ii)) + OPGGS Act, s.646(e(ii)) + OPGGS Act, s.646(ge) + OPGGS Act, s.646(gm) + OPGGS Act, s.646(h(ii))	+ Provision of quarterly reports + Provision of quarterly reports + Provision of quarterly reports + Liaison meetings + NOPSEMA CEO participation at Council of Australian Governments Energy Council meetings

Stakeholder	Required Type of Engagement	Authority for engagement e.g. OPGGS Act, s.647.	Form of Engagement
Industry – Duty Holders and operators (regulated entities), HSRs	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn) + OPGGS Act, s.646(go)	+ Industry liaison meetings and annual review on safety, well integrity and environmental management matters + NOPSEMA hosts workshops and forums to communicate regulatory amendments, e.g. environmental streamlining and financial assurance
Offshore industry associations	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn) + OPGGS Act, s.646(go)	+ NOPSEMA CEO is a member of APPEA's Stand Together for Safety Leadership Committee + Liaison meetings with APPEA, IADC, IMCA
Unions and Offshore Workforce	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn)	+ Presentations at key union hosted events + Bilateral engagement

Stakeholder	Required Type of Engagement	Authority for engagement e.g. OPGGS Act, s.647.	Form of Engagement
	management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(go)	
International regulatory counterparts and agencies	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn) + OPGGS Act, s.646(go)	+ NOPSEMA participates in International Regulators Forum (IRF) and International Offshore Petroleum Environmental Regulators' (IOPER) AGMs and conferences
Media	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn) + OPGGS Act, s.646(go)	+ NOPSEMA issues media releases and responds to media queries on safety, well integrity and environmental management matters + NOPSEMA publishes <i>The Regulator</i> newsletter, to provide advice on safety, well integrity and environmental management

Stakeholder	Required Type of Engagement	Authority for engagement e.g. OPGGS Act, s.647.	Form of Engagement
			matters
Non-government organisations and Academia	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn) + OPGGS Act, s.646(go)	+ NOPSEMA hosts information sessions on safety, well integrity and environmental management matters + NOPSEMA publishes The Regulator newsletter, to provide advice on safety, well integrity and environmental management matters
Community	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn) + OPGGS Act, s.646(go)	+ Provision to host information sessions on safety, well integrity and environmental management matters + NOPSEMA publishes <i>The Regulator</i> newsletter, to provide advice on safety, well integrity and environmental management matters

Stakeholder	Required Type of Engagement	Authority for engagement e.g. OPGGS Act, s.647.	Form of Engagement
Environmental NGOs	+ NOPSEMA is to provide advice on OHS matters + NOPSEMA is to provide advice on structural integrity matters + NOPSEMA is to provide advice on environmental management matters + NOPSEMA is to provide advice on offshore greenhouse gas storage environmental management	+ OPGGS Act, s.646(f) + OPGGS Act, s.646(gf) + OPGGS Act, s.646(gn) + OPGGS Act, s.646(go)	+ Provision to host information sessions on safety, well integrity and environmental management matters + NOPSEMA publishes <i>The Regulator</i> newsletter, to provide advice on safety, well integrity and environmental management matters

ANNEX I: LIST OF ACRONYMS AND ABBREVIATIONS

Table I1: List of Acronyms and Abbreviations

Acronym or Abbreviation	Name or Title
ACTU	Australian Council of Trade Unions
AIS	Automatic Identification Technology
ALARP	As Low As Reasonably Practicable
AMOSC	Australian Marine Oil Spill Centre
AMSA	Australian Maritime Safety Authority
ANAO	Australian National Audit Office
APPEA	Australian Petroleum Production & Exploration Association
BOSIET	Basic Offshore Safety Induction and Emergency Training
CEO	Chief Executive Officer
CMP	Crisis Management Plan
CRIS	Cost Recovery Income System
CSC	Corporate Support Committee
CSTP	Common Safety Training Program
DAFWC	Days Away From Work Case
DNS	Design Notification Scheme
DOIS	Department of Industry and Science
DRET	Department of Energy Resources and Tourism (DOIS Predecessor)
Duty Holder	Duty Holder has been used throughout the document as a collective term for Operator, Proponent and Titleholder
ENGO	Environmental Non-Governmental Organisations
EP	Environment Plan
EPBC	Environmental Protection and Biodiversity Conservation

Acronym or Abbreviation	Name or Title
FLNG	Floating Liquefied Natural Gas
FOET	Further Offshore Emergency Training
FOI	Freedom of Information
FPSO	Floating Production, Storage and Offloading unit
FSO	Floating Storage and Offloading unit
FTE	Full Time Employees
GGs	Greenhouse Gas Storage
HSE	Health, Safety and Environment
HSR	Health and Safety Representative
IADC	International Association of Drilling Contractors
IFAW	International Fund for Animal Welfare
IMCA	International Marine Contractors Association
IMO	International Marine Organisation
IOGP	International Association of Oil and Gas Producers
KPI	Key Performance Indicators
LNG	Liquefied Natural Gas
LoC	Loss of Containment
LPG	Liquefied Petroleum Gas Tanker
LTIFR	Lost Time Injury Frequency Rate
MAE	Major Accident Event
MARPOL	International Convention for the Prevention of Pollution from Ships
MOU	Memorandum of Understanding
MUA	Maritime Union of Australia
NGER	National Greenhouse and Energy Reporting

Acronym or Abbreviation	Name or Title
NGO	Non-Governmental Organisations
NLCF	National Legislative Compliance Framework
NLT	NOPSEMA Leadership Team
NOPSA	National Offshore Petroleum Safety Authority (NOPSEMA's predecessor)
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
NT	Northern Territory
OHS	Occupational Health and Safety. The OHS in the oil and gas industry is outlined within the OPGGS Act, rather than the harmonised WHS Act 2012
OPEP	Oil Pollution Environment Plan
OPEP	Oil Pollution Environment Plan
OPGGS	Offshore Petroleum & Greenhouse Gas Storage
OPICC	Offshore Petroleum Incident Coordination Committee
OSCP	Oil Spill Contingency Plan
OWR	Oiled Wildlife Response
PFW	Produced Formation Water
PGPA	Public Governance, Performance and Accountability
PGS	Petroleum Geo-Services
PPA	Pearl Producers Australia
PSL	Petroleum (Submerged Lands)
QMS	Quality Management Systems
RMAR	Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011
RMF	Regulatory Management Framework
RPF	Regulator Performance Framework

Acronym or Abbreviation	Name or Title
SC	Safety Case
SCE	Safety Critical Elements
SSCP	Safe Supervisor Competence Program
TOR	Term of Reference
TRCF	Total Recordable Case Frequency
TRIFR	Total Recordable Injury Frequency Rate
TRIR	Total Recordable Injury Rate
WAERA	Western Australian Energy Research Alliance
WAFIC	Western Australian Fishing Industry Council
WOMP	Well Operations Management Plan