

Regulatory Advice Statement on APPEA's Joint Industry Operational and Scientific Monitoring Framework

Documents to which this advice applies: Australian Petroleum Production and Exploration Association (APPEA) Joint Industry Operational and Scientific Monitoring Plan Framework (Rev D 12 March 2021) and Joint Industry Operational and Scientific Monitoring Bridging Implementation Plan Template (Rev A 12 March 2021)

Date of NOPSEMA advice: 13-08-2021

Purpose of this statement

This advice is provided as part of NOPSEMA's function to advise on matters relating to offshore petroleum environmental management, which is legislated in Section 646 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

This regulatory advice statement is intended to assist titleholders with the application of APPEA's Joint Industry Operational and Scientific Monitoring Plan Framework (the framework) and Joint Industry Operational and Scientific Monitoring Bridging Implementation Plan Template (the template) in meeting the requirements of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Environment Regulations).

This regulatory advice statement allows NOPSEMA to communicate to titleholders and stakeholders the extent to which APPEA's framework and template fulfill content requirements for an environment plan (EP) and align with related NOPSEMA guidance. It also highlights constraints or limitations to be aware of when applying the framework and template to the development of an EP.

The framework and template do not remove the obligation for a titleholder to meet contemporary legislative requirements, to thoroughly understand the environmental impacts and risks of a petroleum activity and to reduce them to levels that are acceptable and as low as reasonably practicable.

NOPSEMA has evaluated the framework to provide advice on its suitability to meet the requirements of the acceptance criteria in the Environment Regulations. However, a titleholder remains responsible for demonstrating its applicability and relationship to the petroleum activity for which the framework is adopted. The framework and template may assist titleholders in developing parts of an EP, but the EP must meet the acceptance criteria in the Environment Regulations before it is approved by NOPSEMA.

Use of the framework and template is voluntary for titleholders and will only be considered by NOPSEMA in an assessment if referred to by the titleholder.

Where a titleholder has adopted the framework, it does not need to be replicated in an EP submitted to NOPSEMA, provided the information is publicly available and freely accessible; and the EP includes a link or other reference to the applicable revision and the place where the information is published (Regulation 31(2A)).

A titleholder's Bridging Implementation Plan (BIP), which may be developed using the template, will form part of an EP and must be included in the EP submitted to NOPSEMA and published on NOPSEMA's web page.

Benefits of a collaborative framework

NOPSEMA supports industry collaboration to develop best practice guidelines and common approaches to meet environmental management requirements under the Environment Regulations. The potential value of collaborative approaches by industry includes improving efficiency, reducing cost, and achieving consistent, good-quality, effective environmental outcomes.

The petroleum industry and NOPSEMA have both recognised that there is an opportunity for greater levels of cooperation, consistency, and efficiency among petroleum titleholders operating under the OPGGS Act in their development and maintenance of Oil Spill Monitoring Plans (OSMPs) and implementation arrangements. APPEA formed a working group with the view to creating an industry wide OSMP that titleholders could implement in the event of an oil pollution emergency.

The framework is the outcome of titleholders working together on a collaborative oil pollution monitoring approach which aims to align methodologies and develop a set of industry good practice guidelines. This approach is consistent with NOPSEMA's current strategic compliance improvement focus on effective oil pollution emergency preparedness within which NOPSEMA has promoted the benefits of cooperative solutions for enhancing oil pollution preparedness and response.

The development of the framework and template is a positive step which is expected to facilitate further opportunities for cooperative approaches. NOPSEMA encourages APPEA and titleholders to consider expanding the framework to develop an industry wide OSMP that could be rapidly implemented as an off the shelf solution for monitoring programs.

Benefits of an industry wide OSMP include improved reliability and effectiveness of arrangements through increased familiarity with the OSMP among titleholders and monitoring contractors; improved outcomes of testing and exercising being captured centrally and for the benefit of all; and providing an effective and simplified point of engagement with external stakeholders. Further, the approach is expected to present efficiencies including more streamlined approvals processes; maintenance of response arrangements to occur for only one OSMP across industry; streamlined testing and exercising arrangements; and reduced volume but more meaningful consultation in relation to monitoring arrangements across industry during stakeholder liaison.

Purpose of the framework

The framework provides a standardised approach to oil pollution monitoring by the offshore petroleum industry and guidance on developing monitoring implementation arrangements. Titleholders can refer to and apply the framework to meet the monitoring arrangements they are required to detail in their EP submissions.

The framework consists of the following main documents:

- Joint Industry Operational and Scientific Monitoring Plan Framework (Rev. D) (the framework)
- Joint Industry Bridging Implementation Plan Template (Rev. A) (the template)

Additional to the framework and template are the operational monitoring plans (OMPs) and scientific monitoring plans (SMPs). These were not reviewed by NOPSEMA in relation to regulatory requirements but were viewed to provide context for the framework and template. It is NOPSEMA's expectation that technical input to these documents would be provided by relevant experts in each specific monitoring field.

Together the documents provide a mix of industry guidance, templates, worked examples and standardised monitoring plans which titleholders can apply to identify and detail operational and scientific monitoring (OSM) arrangements and capabilities in their EP submissions. The documents are not a substitute for the content required in an EP submission to NOPSEMA. EP submissions must include specific details about what will be done and when, and provide minimum standards of competency and implementation arrangements, amongst other requirements. The framework provides guidance in these areas, but the EP must contain clear commitments regarding implementation arrangements and timeframes in the event of an oil pollution emergency.

Overall, the framework provides a suitable basis for the development of an OSMP which meets the implementation strategy requirements of an EP. The template presents a suitable structure for presentation of a titleholder's monitoring preparedness and implementation information consistent with the regulatory requirements for an EP submission. There are, however, several issues outlined below that titleholders should consider in applying the framework and template to an EP submission to meet regulatory requirements.

Relationship between required EP content and the framework and template

Division 2.3 of the Environment Regulations specifies the required contents of an EP. The information in the framework and template may fulfil one or more, or part of one, of the required items of content.

Advice on the extent to which content requirements are fulfilled by the framework and template is listed in the table below. All other content requirements of the Environment Regulations must be fulfilled by the EP.

Regulation	EP content requirement	Advice on using the framework and template
14(1) and 14(5)	The EP must include an implementation strategy that must include measures to ensure that each employee or contractor working on, or in connection with, the activity is aware of his or her responsibilities in relation to the EP, including during emergencies or potential emergencies and has the appropriate competencies and training.	<p>The information provided in the framework is sufficient to meet this regulatory requirement for the identified key OSM roles.</p> <p>Titleholders will be required to review and confirm that competencies and training required for personnel implementing monitoring are appropriate for the finalised plans to be implemented in the event of worst-case oil pollution scenarios. Outcomes of the review should be presented in the EP clearly identifying how any gaps in competency or training are being addressed.</p>
14(1), 14(8), 14(8AA) and 14(8D)	The EP must include an implementation strategy that must include an oil pollution emergency plan that must include adequate arrangements for responding to and monitoring oil pollution including the following:	<p>The framework provides sufficient information and guidance for a titleholder following the standardised approach to write EP content to meet the regulatory requirements for monitoring arrangements.</p> <p>The framework content relating to operational monitoring addresses the requirements of</p>

(c) the arrangements and capability that will be in place for monitoring the effectiveness of the control measures and ensuring that the environmental performance standards for the control measures are met; and

(b) the arrangements and capability in place for monitoring oil pollution to inform response activities.

The EP must include an implementation strategy that must provide for monitoring of impacts to the environment from oil pollution and response activities that:

(a) is appropriate to the nature and scale of the risk of environmental impacts for the activity; and

(b) is sufficient to inform any remediation activities

Regulation 14(8AA) and scientific monitoring content addresses the requirements of Regulation 14(8D).

The application of the framework needs to be aligned to each titleholder's activities and oil pollution risks through the preparation of a BIP using the template. Producing a BIP consistent with the guidance provided in the framework and template and this regulatory advice statement is critical to a titleholder gaining NOPSEMA acceptance of its monitoring arrangements and capability.

Operational monitoring requirements and capability should be based on the same response needs analysis and capacity reasoning applied to demonstrate ALARP for the response control measures detailed in the Oil Pollution Emergency Plan (OPEP).

Relevant OMPs and SMPs to be implemented under the framework should be identified.

The level of readiness of these plans to be implemented at the time of an incident will need to be determined based on the risk assessment and spill modelling for each activity. Where they are not finalised prior to EP submission the titleholder must demonstrate that implementation will not be delayed or impeded because of the need to finalise after the event.

Timeframes for implementation of the monitoring need to be defined based on the risk assessment and spill modelling for each activity.

14(1), 14(8A) and 14(8B)

The implementation strategy must include arrangements for testing the response arrangements in the oil pollution emergency plan that are appropriate to the response arrangements and to the nature and scale of the risk of oil pollution for the activity.

The arrangements for testing the response arrangements must include:

The framework identifies that the requirements for testing response arrangements should encompass the monitoring arrangements detailed in the BIP.

A worked example is provided in the template for presenting information on monitoring exercises, but also highlights titleholders should ensure the information presented in this section aligns to information presented on

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| <p>(a) a statement of the objectives of testing; and</p> <p>(b) a proposed schedule of tests; and</p> <p>(c) mechanisms to examine the effectiveness of response arrangements against the objectives of testing; and</p> <p>(d) mechanisms to address recommendations arising from tests.</p> | <p>testing of response arrangements in the implementation strategy of their EP.</p> |
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Consistency of the framework and template with NOPSEMA guidance

The framework and template reflect the level of detail and breadth of considerations recommended by NOPSEMA in the following guidance:

- EP decision making guideline (GL1721)
- EP content requirements guidance note (GN1344)
- Oil pollution risk management guidance notes (GN1488)
- Operational and scientific monitoring programs information paper (IP1349)
- Oil spill modelling environment bulletin #1 (A652993)
- Petroleum activities and Australian marine parks guidance note (GN1785)
- Consultation with Commonwealth agencies with responsibilities in the marine area (GL1887)

Additional considerations for titleholders using the framework and template

Terminology within the framework is often presented in the form of advice, using words such as 'should' and 'where practicable'. The EP will require clear commitments using words such as 'will' for it to meet the requirements of the Environment Regulations.

The framework broadly states that during the consultation process input received from stakeholders is evaluated and 'where practicable' input 'should' be used to refine ongoing oil pollution response. In some circumstances firm commitments in relation to stakeholder input will be required in an EP for it to meet the requirements of the Environment Regulations, according to the specific receptors at risk and the oil pollution scenario.

Specific requirements that stakeholders may have in relation to monitoring did not form part of NOPSEMA's review of the framework and template. These stakeholders may include managers of state assets such as marine reserves, World Heritage areas, Australian marine parks, fishers, or other commercial operators in marine and coastal areas, indigenous or maritime heritage managers. Titleholders should seek comment directly from stakeholders to determine that the framework meets any monitoring needs they may have.

Titleholders need to identify relevant control agencies who will have jurisdiction over potential oil pollution incidents from their activities. Where the titleholder is not the response control agency (e.g., vessel

incidents or responses to offshore pollution that enter state/NT jurisdictions) NOPSEMA cannot provide regulatory advice on any additional monitoring requirements of those jurisdictions. As such titleholders will need to consult with the relevant control agencies in the development and implementation of their OSM arrangements in these jurisdictions.

Applying the OSMP framework

The framework provides a standardised approach to the development and implementation of monitoring programs in the event of an oil pollution emergency. To achieve this, the framework needs to be aligned to each titleholder's activities and oil pollution risks through the preparation of a BIP, which will present the interface with a titleholder's environmental management framework and demonstrate that the regulatory requirements associated with OSM implementation are met.

In general terms, effectively applying the framework and developing an appropriate BIP using the template requires that a titleholder has:

- Conducted an appropriate risk assessment of worst-case oil pollution scenario(s) supported by spill modelling.
- Evaluated and adopted all reasonably practicable measures to reduce oil pollution risks by preventing incidents and preparing for a timely and effective response to pollution events.
- Identified monitoring arrangements and resource requirements based on the worst-case oil pollution scenario(s).
- Presented monitoring arrangements and capability that are scalable and adaptable and will provide timely information.
- Identified suitably qualified personnel who will be in decision making roles and implementing the monitoring and who are prepared for their responsibilities in advance of the incident occurring.
- Established operational monitoring requirements based on the response needs and capacity reasoning applied to demonstrate ALARP for the response control measures detailed in the OPEP.
- Demonstrated all feasible preparatory actions to improve reliability, effectiveness and timeliness of response arrangements and capability (including operational monitoring), have been implemented where costs are not grossly disproportionate to the environmental benefit gained.
- Set environmental performance standards that reflect the level of performance required of the response control measures (including monitoring) to achieve the defined environmental performance outcomes.

Application of the framework in the development of oil pollution monitoring plans is likely to meet NOPSEMA's interpretation of the requirements of the Environment Regulations provided the following specific criteria are met:

- The EP **clearly commits** to initiate all OMPs as listed in Table 5-1 as per initiation criteria listed in Table 9-1.
- The EP **clearly commits** to initiate all SMPs as listed in Table 6-1 as per initiation criteria listed in Table 9-2.

- The EP **clearly commits** to the Termination Criteria listed in Table 9-1 for operational monitoring and Table 9-2 for scientific monitoring.
- The EP **clearly commits** to the quality assurance and quality control items listed in Section 10.11 of the framework.
- The EP includes a **clear commitment** to use the same description of the roles and responsibilities for key emergency response personnel presented in the framework in Table 10-6.
- The EP **clearly commits** to emergency response personnel having the competencies outlined in Table 11-1. However, titleholders need to ensure that regardless of the university qualifications that personnel may have, ultimately the monitoring undertaken must be of suitable experimental design, and without personnel who are trained and competent in experimental design and in situ monitoring implementation, irrespective of their qualifications, this may not be achieved.
- The EP **clearly commits** to the minimum standards identified in Appendix A, **with the addition of** replacing language in the form of 'should' and 'where possible' with 'will'. EP's that commit to the standards identified in this appendix without replacing the text described above with more definitive language will likely be subject to a more comprehensive assessment of the arrangements in accordance with the risk factors particular to the EP and receive requests for clarification from NOPSEMA during the assessment process.
- The EP **clearly commits** to meet the competencies identified for teams in Appendix D Table D1.
- The EP **clearly commits** to an annual review and reviews where all the suggested triggers apply as advised in the template.

Applying the bridging implementation plan template

Application of the template in the development of OSMPs is likely to meet NOPSEMA's interpretation of the requirements of the Environment Regulations, provided:

- The EP uses the process described in Sections 2 and 13 of the template to identify the environment that may be affected and the protection and monitoring priorities, including the application of oil concentration thresholds consistent with the exposure values for oil spill modelling presented in NOPSEMA's oil spill modelling bulletin, and fully justifies the outcome.
- The EP adheres to the process described in Sections 3 and 4 of the template to undertake baseline data analysis and fully justifies the outcome.
- The EP makes clear, unambiguous commitment that scientific monitoring reports 'will be' peer reviewed by an expert panel (Section 4, p10).
- The EP includes clear, unambiguous activation, mobilisation, and implementation timeframes, which are relevant to the predicted time to contact of the pollution with sensitive receptors, baseline data available, sensitivities affected, practicability of implementation and/or other factors. Indicative mobilisation timeframes for OSM activities presented as worked examples in the template, for example, activation timeframes in Table 7-1 and Section 12 and implementation timeframes in Sections 13 and 15, should be revised to reflect each activity's oil pollution scenario(s) and specific response requirements.

- Monitoring implementation timeframes consider any time requirements to finalise SMPs prior to implementation being required or take actions to reduce timeframes during the pre-spill (preparedness) phase.
- The EP includes OMPs that are sufficiently developed and/or finalised to ensure that they are ready to implement in the identified timeframes for operational monitoring to provide information to support initial and ongoing response decision-making.
- The EP identifies that operational monitoring detailed in the OMPs will be initiated, monitoring teams deployed, and information provided to the incident management team (IMT) in timeframes that match those identified and applied to the oil pollution emergency response planning in the development of the OPEP.
- The EP identifies monitoring resources in the BIP that match the monitoring and response needs in terms of numbers of personnel, teams, equipment, sites etc. Tables 8-2, 8-3 and 10-1 in the template provide a suitable method of presenting the number of personnel and teams required to resource a monitoring program, however, the content of these tables will be assessed by NOPSEMA in the context of the oil pollution scenario(s), response needs analysis and capacity reasoning presented in the EP. Titleholders should not assume that the information presented in these example tables will be adequate for most responses.
- The EP adheres to the exercise and testing process described in Section 9.3. Additionally, the BIP should identify the specific objectives of the testing of monitoring arrangements, ensure the frequency of the schedule of testing is consistent with the regulatory requirements and provide information on any aspects of the testing of monitoring that differ to the OPEP testing arrangements described elsewhere in the EP.
- The EP confirms that the aims and objectives of the OMPs and SMPs are appropriate for a titleholder's monitoring requirements and address the potential impacts and risks and response activities.
- The EP uses the method provided in the template for titleholders to ensure special requirements for Matters Protected Under Part 3 of the EPBC Act are met through the proposed monitoring (Section 14). However, the method indicates that this would be done prior to finalisation of OMPs and SMPs, which may not be completed in a titleholder's EP. Titleholders should ensure that relevant requirements are at least identified in the EP. This process would also be repeated during finalisation of OMPs and SMPs in the event of an oil pollution emergency to ensure any changes to requirements since submission of the EP or the latest review are included.
- The EP sets environmental performance outcomes, standards and measurement criteria that relate to the environmental impacts and risks and required level of performance of the proposed monitoring arrangements (preparedness and implementation) defined in the BIP.

Timeframe for expiry of advice

This regulatory advice statement is valid for the current revisions of the framework and template (including relevant information taken from OMPs and SMPs). Where APPEA revises the framework and/or template to reflect changes in knowledge, practices or requirements, a new regulatory advice statement may be requested and if there are material changes NOPSEMA may opt to issue a revised statement.

This regulatory advice statement is provided by the NOPSEMA Environment Manager – Drilling and Spill Risk as signed below.

Rhys Jones

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