Environment plan decision making

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Acronym list

ALARP	As low as reasonably practicable
AS/NZS ISO Standardisation	Australian Standard/New Zealand Standard International Organisation for
Environment Regulations	Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009
EP	Environment plan
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ESD	Ecologically sustainable development
NOPSEMA Authority	National Offshore Petroleum Safety and Environmental Management
OPGGS Act	*Offshore Petroleum and Greenhouse Gas Storage Act 2006*
OPEP	Oil pollution emergency plan
OPP	Offshore project proposal

Executive summary

In the process of assessing environment plans all stakeholders are interested in what NOPSEMA does between submission and final decision. In 2015 a strategic compliance improvement program was initiated by NOPSEMA to improve consultation practices and regulatory transparency in the offshore petroleum sector. The program identified that greater transparency of NOPSEMA's decision making is required to assist stakeholders' understanding of assessment processes under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations).

This decision making guideline describes how NOPSEMA evaluates the quality of environment plan (EP) submissions against the legislated criteria for acceptance. When read in conjunction with the assessment policies that describe the process for how a decision is reached, all stakeholders have an equal and full picture of the regulator's assessment process.

An activity accepted under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations, which permits the activity to occur, will have an environment plan that:

- Is appropriate to the nature and scale of the activity because information provided about the activity, and the environment, properly informs the environmental impact and risk assessments.
- Demonstrates that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable because the titleholder has adopted all reasonably practical control measures that reduce each identified impact and risk.
- Demonstrates that environmental impacts and risks of the activity will be of an acceptable level because environmental impact and risk predictions are within the defined acceptable level of that impact or risk.
- Provides for appropriate EPOs, EPSs and measurement criteria which function as the conditions that deliver ALARP and acceptable levels of environmental impacts and risks.
- Includes an appropriate implementation strategy and monitoring, recording and reporting arrangements which will maintain an ALARP and acceptable level of environmental impacts and risks for the life of the activity.
- Does not involve the activity being undertaken in any part of a declared World Heritage Property, other than arrangements for environmental monitoring or responding to an emergency.
- Demonstrates that a consultation process has been followed and that the measures adopted because of the consultations are appropriate because relevant persons which may be affected are aware of the environmental impacts and risks from the activity and have received natural justice prior to the submission of the EP.
- Complies with the Act and the regulations.

This guideline contains detail about a collection of '*factors that influence decisions*' and a collection of '*considerations in making a decision*' for each bullet point above. These two collections are summarised in appendices at the end of this document.

1. Environment plan acceptance

1.1. Introduction and scope

This guideline sets out the considerations of NOPSEMA in making decisions in accordance with the legislated criteria for acceptance of an EP. It aims to provide insight into NOPSEMA's decision-making in support of transparency. The objectives of this guideline are to:

- communicate NOPSEMA expectations for EP content in relation to the criteria for acceptance
- provide a tool for titleholders and stakeholders to understand regulatory decisions
- provide transparency to all stakeholders on why and how regulatory decisions are made.

In preparing an EP, titleholders and proponents are encouraged to discuss the content of this guideline with NOPSEMA. The guideline can also be used to "self-check" EPs prior to submission to assist NOPSEMA deliver efficient and timely assessment decisions.

This guideline should be read in conjunction with the Environment Regulations and the published policy positions of NOPSEMA in undertaking assessments in accordance with these regulations[1]. It does not contain guidance on how to meet specific content requirements of the Environment Regulations, to which stakeholders are directed to the EP Content Requirements Guidance Note available online[2].

1.2. Making a decision

According to reg 10 of the Environment Regulations, if NOPSEMA is 'reasonably satisfied' that the EP meets the criteria in reg 10A; then it must accept the EP. Similarly, NOPSEMA will refuse to accept an EP if it is not reasonably satisfied that the criteria have been met.

The regulatory construct that a NOPSEMA decision maker be 'reasonably satisfied' gives NOPSEMA a level of discretion in making administrative decisions on EPs. Specifically, a NOPSEMA decision maker will be reasonably satisfied where they:

- Have a subjective satisfaction that the criteria in reg 10A are met; and
- There is an objectively reasonable basis for that satisfaction; based on the available evidence - primarily presented by the titleholder in the EP submission.

In assessing the evidence for each submission, a team of NOPSEMA environmental specialists exercise judgement over the specific facts presented and circumstances of each submission to reach findings of fact; which are ultimately taken into account by the decision maker.

In conjunction with its assessment of the reg 10A criteria, the NOPSEMA decision maker will also have regard to the objects of the regulations (reg 3) and the specific content requirements for an EP (regs 13-16)

There are eight criteria for acceptance of an EP under reg 10A of the Environment Regulations. Each criterion is interpreted and explained in this guideline. For an EP to be accepted, all of the criteria must be met.

[1] PL0050 – Assessment and PL1347 – EP Assessment policies available online

[2] (https://www.nopsema.gov.au/assets/Guidance-notes/A339814.pdf)

1.3. Principles of good administrative decision making

NOPSEMA applies the following principles of administrative decision-making in making decisions under reg 10. They relate to the grounds for judicial review under the *Administrative Decisions (Judicial Review) Act 1977* and have been derived from the Administrative Review Council Decision Making best practice guides (2007).

Principle	Description in context of EP acceptance
The decision is within power	A decision under reg 10 will be made by a Representative of NOPSEMA appointed under a valid instrument of delegation made by the NOPSEMA CEO under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGS Act). The decision maker will apply the correct legal tests under the OPGGS Act and associated regulations and the decision will not be otherwise contrary to law.
The decision is fair	The decision will be impartial and provide parties whose interests are affected with sufficient opportunity to give their views and have them considered. The consultation required by Division 2.2A of the Environment Regulations is the primary means of applying the hearing rule.
Relevant information is considered	All relevant matters and considerations, including matters of fact or of opinion, have been taken into account in making the decision. The EP submitted by the titleholder is the central document considered in the decision. Information from NOPSEMA guidance, published material (including published scientific literature and material published by the Department of Environment and Energy), stakeholder consultation, and offshore petroleum literature (i.e. published by a peak industry body or regulators in other jurisdictions) are some other sources of relevant information. Any irrelevant matter and considerations must not be taken into account in making the decision. It is incumbent on the decision maker to determine what considerations are relevant and irrelevant. Economic factors such as titleholder work program commitments and encumbrance costs may be irrelevant considerations.
The decision is reasonable	The decision must be objective and just, in light of all the circumstances such that a 'reasonable decision maker' would be of the same belief. In this context, a reasonable decision maker is likely to be an environmental management professional with knowledge of environmental impacts and risks from offshore petroleum activities. The decision should have a path of logic which can be followed and understood, and which contains no important omission or inexplicable step.
The decision is well-founded	A decision is well founded if it has a proper basis in the assessment of evidence and the application of policy, with regard to the merits of the case. The decision must be based on evidence or other material to justify the making of the decision that is credible, relevant and significant.
The decision is clear	Decisions will be clearly explained by reference to applicable statutory criteria, relevant evidence, findings of fact, reasoning and conclusions.

2. Criterion 10A(a) Nature and scale

Sub-regulation 10A(a) requires an EP to be appropriate for the nature and scale of the activity. In the absence of legal definitions of 'nature' and 'scale' the following definitions are used by NOPSEMA in this context. 'Nature' means the basic or inherent features, character, or qualities of the activity considered in the context of the environmental setting. 'Scale' means the comparative or proportionate magnitude, size, extent of the activity considered in the context of its impact and risks.

In practice, nature and scale is determined by a number of factors that will vary on a case-by-case basis. NOPSEMA assesses the following variables to determine if the EP meets this criterion. All of these variables are generally of greater influence where the environmental management approach of the titleholder is uncommon, novel, untested, and/or ambiguous. Although the influencing factors are listed individually below, in practice they are so closely interlinked the assessment considers them holistically.

The EP must be appropriate for the nature and scale of the activity

2.1. Specific factors influencing decisions

Extent and duration of the activity: The extent and duration of the activity type, including full field life of the activity, and the features of the activity that have potential to interact with the environment. In making a decision NOPSEMA will consider the timing (e.g. seasonality) of the activity when considered in the context of the presence and/or vulnerability of environmental sensitivities.

Certainties of the activity: Any proposed activity has a schedule and plan within which the titleholder intends to operate. This is referred to by NOPSEMA as the '*operating envelope*' of the activity. The operating envelope should include details of the titleholder in executing the activity as planned. For example the hydrocarbon type (including the anticipated hydrocarbon type, pressures, temperatures and fluid composition) is usually well understood by the titleholder prior to an activity commencing. Other certainties of an activity would be the characteristics of the activity in response to unplanned events occurring (i.e. what the response arrangements will be to adequately respond to a significant oil spill).

Flexibility sought for the activity: Only information in the EP is considered by NOPSEMA in gaining an understanding about the proposed activity. It is recognised that petroleum activities rarely proceed exactly as intended. Therefore an EP typically caters for a broader set of circumstances than may be required to undertake the activity. This is referred to by NOPSEMA as the '*design envelope*' of the activity. The design envelope provides flexibility to titleholders to manage their activities within a broader set of parameters. This approach is encouraged by NOPSEMA because it minimises the need for change as the activity progresses. Activity timeframes are the best example of titleholders setting a design envelope to provide flexibility to manage unforeseen circumstances. For example, a titleholder may propose to complete 30 days of seismic acquisition in a 90 day period. Titleholders are able to propose large design envelopes noting that doing so may increase the corresponding work necessary to manage the impacts and risks of the activity. Large design envelopes may also carry higher regulatory levies and prolong assessment timeframes.

Sensitivity and vulnerability of the receiving environment: The environmental setting of where the activity (planned and unplanned) will occur including the predicted severity, extent and duration of the different types of pressures exerted on the environment. This is best described in the context of the difference between additional impacts and risks being exerted on the environment from the petroleum activity and the existing levels of that impact or risk. This includes describing any known pre-existing effects and natural variations in the characteristics of the sensitivity/receptor. The protection status hierarchy (EPBC, CMR, WHA, endangered species etc.) is frequently used here along with information gained from previous and current offshore petroleum activities.

People and communities affected: The greater the number of people and communities affected by the activity will increase the nature and scale of the activity. The amount of consultation with relevant persons, as shown through the consultation records, can provide important context about how people and communities view the proposed activity.

Cumulative impacts and risks: Cumulative environmental impacts and risks are considered when describing the environment that may be affected. It is important to remember to describe the current pressures on the environment including other petroleum activities, other marine industries and users, and other ecosystem pressures.

Legislative context: The amount of environmental legislation that applies to an activity influences the nature and scale of the activity. The greater the amount of legislated and other requirements that apply is indicative of a larger nature and scale of an activity.

2.2. Making a decision

Where NOPSEMA considers that a submission is considerably lacking in terms of nature and scale, it will not proceed with the assessment. This is due to the lack of context provided in the EP for NOPSEMA to be able to make a decision about this and the remaining criteria. An EP is appropriate to the nature and scale of the activity when the information provided about the activity, and the environment, properly informs the impact and risk assessments. This point is reached when;

An EP is appropriate to the nature and scale of the activity when the information provided about the activity, and the environment, properly informs the environmental impact and risk assessments

The activity is clearly scoped and bounded: It is essential that the titleholder, stakeholder and NOPSEMA all understand the scope and boundaries of the proposed activity. In practice this is often achieved by setting the intended 'operating envelope' of the activity and setting the broader 'design envelope' of the activity. Ambiguous language, operational caveats, and disclaimers all erode clarity when describing the activity. Only activities that are described in the EP are assessed and accepted. If an activity or component of an activity is not described in an EP, then it is not part of the EP acceptance.

The environment that may be affected is suitably understood: The EP is expected to describe the environment that will or may be affected by the activity. Where the values and sensitivities of the environment are poorly understood the current level of understanding for those features, acknowledging known gaps, should be clearly included. Where values and sensitivities are protected by the EPBC Act, and/or are particularly sensitive to the impacts and risks of the activity, greater detail is expected in describing those features of the environment. Information obtained through stakeholder consultation may be useful to titleholders to improve their understanding of the environment. This should be taken into account when describing the environment that may be affected.

The requirements that apply will be met: It needs to be clear what the specific legislation and other requirements that relate to environmental management apply to the proposed activity. Further, the EP needs to explain how the titleholder determined what those legislative and other requirements are. Similarly the EP needs to be clear and demonstrate how those requirements will be met. This is often achieved by referring to relevant sections of the EP, and often the relevant control measures adopted for the activity. NOPSEMA's assessment program has Part 10 approval under the EPBC Act and so the

assessment of the EP will focus on the requirements of the EPBC Act and relevant aspects of the Program[3].

The impacts and risks are suitably understood: It needs to be clear how the titleholder determined what impacts and risks needed evaluation, in the context of the activity and environment descriptions provided. Greater levels of detail are expected for assessment of impacts and risks with the highest levels of extent, duration, severity and, uncertainty of effects to the environment for that impact and risk.

The analysis of how the activity and environment interact: After describing the activity and the environment that may be affected, NOPSEMA will assess the analysis of the titleholder in detailing how these two things interact, in their circumstance. For example, it is well understood that light can affect turtles – what is required in the EP is a discussion of how any light from the proposed activity will impact on turtles in this circumstance. The importance of this step cannot be overstated as the conclusions of this discussion will likely be a predicted level of an impact or risk, which is the foundation of being able to demonstrate impacts and risks will be reduced to ALARP and to an acceptable level. The level of analysis can and will vary depending on the nature and scale of the activity. This means that the higher the extent, duration, severity, and uncertainty that exists between how the activity and the environment interact will lead to more extensive analysis.

3. Criterion 10A(b) ALARP

The EP must demonstrate that the environmental impacts and risks of the activity will be reduced to ALARP

Sub-regulation 10A(b) requires that an EP demonstrate that the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable (ALARP). The question that needs to be answered to meet this criterion is 'has the titleholder done enough to reduce the impacts and risks of the activity?'

Reducing impacts and risks to ALARP is based on the concept of reasonable practicability; the weighing up of the magnitude of impact or risk reduction against the cost of that reduction[4]. In this context, a titleholder is required to implement all available control measures where the cost is not grossly disproportionate to the environmental benefit gained from implementing the control measure[5].

This guideline gives insight into NOPSEMA considerations when assessing the higher order impacts and risks. Not all factors apply in all circumstances[6]. Therefore it is often useful to distinguish between higher and lower order impacts and higher and lower order risks. NOPSEMA considers that lower order impacts and risks are ones where the environment or receptor affected is not formally managed, less vulnerable, widely distributed, is not protected and/or threatened, and there is confidence in the effectiveness of adopted control measures. The way the environment or receptor is affected would also need to be localised and recoverable.

An EP documents, among other things, the method and the result of work undertaken to demonstrate a titleholder will reduce impacts and risks to ALARP. NOPSEMA employs environmental specialists to

[3] NOPSEMA will act in accordance with the requirements for Commonwealth officers under the EPBC Act and with commitments made under the NOPSEMA program endorsed under the EPBC Act (the Program)

[4] Cost is a term used in this context to mean the sacrifice required for implementing a control measure which includes an impost such as the money, time, and/or trouble required to implement a particular control measure. Environmental cost may also be a cost in some circumstances e.g. dispersant use on an oil spill.

[5] 'Control measure' means a system, procedure, item of equipment, or person that will be used to reduce environmental impacts and risks (regulation 4).

[6] Refer to section 2: the EP must be appropriate to the nature and scale of the activity.

assess the EP and provide a recommendation to a NOPSEMA decision-maker. The recommendation will either be that NOPSEMA should, or should not, be reasonably satisfied that the EP demonstrates that the impacts and risks of the activity will be reduced to ALARP.

3.1. Specific factors influencing decisions

Each impact and risk has been evaluated: NOPSEMA expects more comprehensive evaluations of the higher order impacts and risks. The evaluation is of the control measures necessary to reduce that impact or risk to ALARP. It is expected that the titleholder will evaluate each impact and risk separately before also considering any cumulative effects associated with two or more impacts or risks when considered in combination across the whole activity.

Effort in exploring further control measures: For higher order impacts or risks it is expected that reasonable effort has been used to identify and evaluate alternative, additional, and improved control measures that may further reduce impacts and risks. In these circumstances it is expected that:

- Alternative, including potentially more effective and/or novel control measures are evaluated as replacements for an adopted control.
- Additional control measures are evaluated in terms of their ability to reduce an impact or risk when added to the existing suite of control measures.
- Improved control measures are evaluated for improvements they could bring to the effectiveness of adopted control measures in terms of functionality, availability, reliability, survivability, independence and compatibility.

For higher risks the exploration of alternative, additional, or improved control measures should do more than compare the cost of the adopted control measures to the costs of an extreme or clearly unreasonable control measure. Consideration should be given to the environmental benefit of adopting the control measure and that incremental improvements to the adopted control measures are taken into account. This is particularly relevant for oil spill risks where the evaluation should consider alternative, additional or improved oil spill response control measures (independent from likelihood reduction) in isolation and as a contributor to the overall reduction of oil spill risks to ALARP.

For higher impacts the exploration of alternative, additional, or improved control measures should be conducted relative to the design envelope of the activity and consider particular periods, locations or activity phases that increase the impact on the environment due to increased sensitivity and/or vulnerability. This approach ensures that aspects of the activity that present a higher impact are considered and at these times/locations it may be reasonably practicable to implement additional controls. For example, for a seismic survey permitted to occur over a 12 month window, it may be necessary to implement additional controls when operations overlap cetacean migration pathways during the migration period.

The clarity and comprehensiveness of the costs and the environmental benefits: Where there is high degree of uncertainty in the environment impact and risk predictions, and/or for higher order impacts and risks, the costs and benefits should be fully explored and fairly reflected. The following points are considered by NOPSEMA when assessing an ALARP demonstration:

- The predicted levels of impacts and risks (with adopted control measures implemented) as the basis for comparing the levels of impact and risks. These predicted levels should then be used as a point of comparison to determine an environmental benefit of adopting alternative, additional and/or improved control measures.
- The balance and weight of evidence presented in relation to the possible environmental benefit and the costs of adopting alternative, additional and/or improvement control measures. For example, if qualitative analysis of the environmental impact/benefit has been undertaken a

similarly detailed analysis of the costs of adopting the possible control measure(s) should be presented in the EP.

- Costs associated with alternative control measures should be compared against the adopted control measures. For example, a control measure might be considered too expensive in isolation but may become reasonably practicable when the costs of the adopted control measures are added together and deducted from the costs of the alternative. For example, consideration of the cost of PFW reinjection (including drilling reinjection wells, infrastructure, and well monitoring) as an alternative control measure should also take into account potential savings in terms of reduced chemical analysis, in-field monitoring, inline monitoring, ecotoxicological analysis, etc. over the life span of the activity, in order to reflect the true cost of implementation.
- Industry cooperation has proved effective at implementing control measures that further reduce an impact or risk shared across the industry. Good examples of these successes are joint industry research projects, data discovery initiatives, and the subsea first response toolkit used for responding to oil spills. Collaboration, resource sharing, shared equity and joint funding can greatly reduce costs to individuals. The implementation of one control measure can result in an industry-wide environmental benefit. NOPSEMA assesses the extent to which a titleholder has considered cooperative arrangements as a way to reduce implementation costs and/or reduction in collective environment risks.

The certainty of the result: In the simplest of terms, and to an extent, regardless of the evaluation method(s) used, the result will need to show one of the following conclusions have been reached:

- All known control measures have been adopted
- No additional, alternative and improved control measures would provide further environmental benefit
- No reasonably practical additional, alternative, and/or improved control measures exist.

3.2. Making a decision

The assessment undertaken by NOPSEMA seeks to agree, or disagree with the conclusions of the titleholder that all reasonable and practical control measures have been adopted for the activity to ensure that an impact or risk is going to be reduced to ALARP. An EP demonstrates that environmental impacts and risks will be reduced to as low as reasonably practicable when all reasonably practical control measures that reduce each impact and risk have been adopted by the titleholder. This point is reached when:

The evaluation method is systematic: The evaluation method(s) selected needs to have covered all aspects of the impact or risk. Relevant information such as research, data, operational experience, stakeholder information and other information will need to have been appropriately considered in the method.

For low level impacts and risks, in typical circumstances, it is expected that adoption of control measures specified by an industry standard will be a suitable method for demonstrating ALARP. Alternative approaches can be used to group lower level impacts and risks and treat them similarly.

For higher order impacts and risks a method is required that shows the disproportion between the cost of a control measure and the environmental benefit potentially gained by its adoption.

The evaluation method selected has been followed and applied thoroughly: The EP will usually specify the titleholders' method(s) for demonstrating impacts and risks are reduced to ALARP. Each method has strengths and weaknesses in terms of how biases and errors can unintentionally influence assessments made by the titleholder. A method that has failed to correct for obvious biases and/or error is inappropriate. For higher order impacts and risks NOPSEMA assesses the facts and reasons associated with the rejection of control measures. The EP needs to provide sufficient detail in the evaluation to have examined all available control measures for treating that impact or risk.

The outcomes are defensible: The evaluation of each impact and risk clearly explains why the adopted control measures are all that is required to manage environmental impacts and risks to ALARP. This is the information that is used to explain the approach taken by the titleholder to an impartial person. Where there is greater subjectivity in the evaluation method used, and the nature and scale of the impact or risk warrants, a more comprehensive and evidence-based explanation of why the approach taken meets this criterion is expected.

An EP demonstrates that environmental impacts and risks will be reduced to as low as reasonably practicable when all reasonably practical control measures that reduce each impact and risk have been adopted by the titleholder.

ALARP is considered independently[7]: It is possible to demonstrate multiple things using a variety and mix of methods. However, for the higher order impacts and risks it is expected that the chosen evaluation method(s) are used only to demonstrate reduction of an impact or a risk to ALARP. It is more challenging to use the same evaluation to simultaneously complete two tasks e.g. demonstrate ALARP and acceptable levels, detail likelihood and consequence levels, evaluate multiple impacts or risks, or evaluate an impact and a risk together.

Evaluation outcomes are reproducible: The assessment undertaken by NOPSEMA seeks to understand whether its environmental specialists would agree with the conclusions of the titleholder when using the same method and information.

4. Criterion 10A(c) Acceptable level

Sub-regulation 10A(c) requires that an EP demonstrate that the environmental impacts[8] and risks of the activity will be of an acceptable level. This criterion is arguably the most difficult to demonstrate and assess because each environmental receptor, including different plants, animals, ecological communities, and the social, economic and cultural features of those, have a different level of sensitivity or resilience to the changes (impacts and risks) caused by a petroleum activity. Accordingly, consultation with relevant persons is an important part of establishing context for defining an acceptable level and successfully demonstrating it will be met.

This guideline gives insight into NOPSEMA considerations when assessing the higher order environmental impacts and risks. It must be understood that not all factors apply in all circumstances. Therefore it is often useful to distinguish between higher and lower order environmental impacts and risks. NOPSEMA considers that lower order impacts and risks are ones where the environment or receptor affected is not formally managed[9], is less vulnerable to the impact or risk, is widely distributed,

[7] NOPSEMA has published a Safety Case ALARP guidance note. The concepts and thinking are useful when preparing an EP. Care should be taken if applying exact concepts to a different class of receptors and suite of control measures.

[8] 'Environmental impact' means any change to the environment, whether adverse or beneficial, that wholly or partially results from an activity of a titleholder (regulation 4).

[9] Formally managed is reference to a part of the environment or a receptor that is managed by State or Commonwealth legislative mechanisms that afford a level of protection to that environment or receptor.

is not protected and/or threatened, and there is confidence in the effectiveness of adopted control measures. The way the environment or receptor is affected would also need to be localised and recoverable.

4.1. Specific factors influencing decisions

Internal context: The internal context relates to the titleholders policy, culture, processes, standards, structure and systems. NOPSEMA considers whether the environmental impacts and risks deemed to be acceptable by a titleholder are consistent with their processes and relevant internal requirements.

External context: The external context relates to the external environment that may be affected. It includes the natural environment, as well as expectations of relevant persons. NOPSEMA considers whether relevant persons' expectations have contributed to defining what can be considered an acceptable level of impact or risk. Consultation should provide further input to the titleholder to define acceptable levels.

The environment plan must demonstrate that the environmental impacts and risks of the activity will be of an acceptable level

The uniqueness of, and/or the level of protection assigned to the environment, its sensitivity to pressures introduced by the activity, and the proximity of activities to sensitive receptors, are all relevant when considering acceptable level. NOPSEMA will also consider how particular values and sensitivities of the environment including matters protected under Part 3 of the EPBC Act have been taken into account in defining the acceptable levels. This is achieved by considering how the titleholder has demonstrated that all environmental impacts and risks to matters protected by the EPBC Act are of an acceptable level.

Legislation and conventions: NOPSEMA looks at the EP to confirm that the titleholder will comply with relevant Australian environmental management laws as a mandatory minimum requirement. Australian law gives effect to international conventions to which Australia is signatory such as MARPOL, the World Heritage Convention, the Ramsar Convention, and the Biodiversity Convention to name a few. Out of these mandatory minimum requirements other non-legislated requirements arise. These 'other requirements' that may apply to the activity can assist in defining the acceptable levels of impact and risk associated with petroleum activities and may include things such as relevant management plans and guidance related to matters protected under Part 3 of the EPBC Act such as:

- Australian IUCN reserve management principles for Commonwealth marine protected areas and bioregional marine plans
  - conservation actions, objectives or a target in recovery plans/approved conservation advice for relevant listed threatened species
  - management plans, including features such as advice on permitted uses, objectives, targets, goals or key performance indicators for marine reserve areas.
- National water quality management strategy document (e.g. guidelines for marine water quality)
- Conditions of approval set under other legislation
- National and international requirements for managing pollution from ships
- National biosecurity requirements
- Industry best practice guidance (see IOGP, IPIECA, APPEA, API and many others).

Industry standards and best practices: Widely adopted standards and other published materials are relevant when defining acceptable levels. Where there is material available, this should be used as a reference to help define acceptable levels. In some circumstances an environmental management approach may be wholly or partially inconsistent with an authoritative and published standard. When this occurs NOPSEMA will look for explanation from the titleholder for any deviation which would include how the same or a better level of environmental performance (or outcome) will be achieved by their environmental management approach.

Comparison made between predicted levels and acceptable levels: With the acceptable levels defined, an evaluation can then be completed to determine how the predicted extent, severity, duration, and uncertainty of environmental impacts and risks compare with these levels. Where predictions are not within the pre-defined acceptable levels it will not be possible to demonstrate an acceptable level of impact or an acceptable level of risk, meaning more must be done to manage these impacts or risks.

An EP demonstrates that impacts and risks will be of an acceptable level when the impact and risk predictions are within the defined acceptable level of that impact or risk

4.2. Making a decision

The assessment undertaken by NOPSEMA seeks to agree, or disagree with the conclusions of the titleholder in terms of whether the activity described and control measures adopted manage the impacts and risks to ensure they will be of an acceptable level. An EP demonstrates that impacts and risks will be of an acceptable level when the impact and risk predictions are within the defined acceptable level of that impact or risk. This point is reached when;

An acceptable level of impact and risk has been defined: To demonstrate something is at or below a certain level then that level must be defined and explained in the context of the activity (see Nature and Scale section above). It is the combination of the described activity, the described environment, the input of relevant persons, the requirements that apply, and the objects of the regulations that directly influence what can be defined as an acceptable level of impact and risk.[10] There are three objects of the regulations. The first two - reducing risks to ALARP and to an acceptable level - are explained in this guideline as they are also criteria for acceptance of an EP. The third object of the regulations is to ensure that any petroleum activity is carried out in a manner consistent with the principles of ecologically sustainable development (ESD) set out in section 3A of the EPBC Act. The principles of ESD feature prominently in decision making because they are integral to defining acceptable levels of impact and risk.

Action in the presence of scientific uncertainty: Scientific uncertainty occurs where existing science is incomplete or where no consensus exists regarding a particular threat.[11] Where there is a *threat of serious or irreversible environmental damage* and *scientific uncertainty as to the environmental damage*, there is a need to apply the precautionary principle. The precautionary principle will be applied by NOPSEMA when these two conditions occur. When this happens NOPSEMA will consider how the EP removes at least one of these two conditions. This could be through further study, modification to the proposed activity, and/or adoption of previously rejected control measures. Where the EP does not address this NOPSEMA will need to consider how this could occur and/or seek additional information from the titleholder.

[10] Regulation 3 of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009

[11] David Hunter, James Salzman and Durwood Zaelke, International Environmental Law and Policy (Second ed, 2002) p.406 in Chapter 13; Report of the Independent Review of the EPBC Act

The evaluation method is systematic: The evaluation method(s) selected need to have covered all aspects of the impact or risk. Relevant information such as research, data, operational experience, relevant person information and other information will need to have been appropriately considered in the method.

- For low level impacts and risks, in typical circumstances, it is expected that demonstrating an impact or risk will be reduced to ALARP will be sufficient for demonstrating that the same impact or risk will be of an acceptable level. Alternative approaches can be used to group lower order environmental impacts and risks and treat them similarly.
- For higher order impacts a method is required that shows a comparison between the predicted levels of impact and the defined acceptable levels of impact. The comparison needs to show that the predicted levels of impact are at or below an acceptable level, taking into account any uncertainty in the prediction.
- For higher risks a method is required that shows a comparison between the computation of residual risk and the defined acceptable levels of risks. This comparison needs to show that the residual risks are at or below an acceptable level, taking into account different values and risks tolerances between the titleholder and relevant persons affected by the activity.

During NOPSEMA's assessment, greater scrutiny will be applied to higher order impacts and higher order risks.

The evaluation method selected has been followed and applied thoroughly: The EP specifies the titleholders' method(s) for demonstrating impacts and risks will be of an acceptable level. Each method has strengths and weaknesses in terms of how biases and errors can unintentionally influence the impact and risk assessments of the titleholder. A method that has failed to correct for obvious biases and/or error is inappropriate. For higher order impacts or risks, NOPSEMA assesses the certainty of the titleholder predictions of that level of impact and risk. The EP needs to provide sufficient detail in the evaluation to show all available information has been examined to support the defined acceptable levels of impact and risk.

The outcomes are defensible: The evaluation of each impact and risk should clearly explain why the predictions made are accurate or otherwise clearly show the degree of variation about a most probable prediction, and that they are within the defined acceptable level of impact and risk. This is the information that is used to explain the approach taken by the titleholder to an impartial person. Where there is greater subjectivity in the evaluation method used, and the nature and scale of the impact or risk warrants, a more comprehensive and evidence-based explanation of why the approach taken meets this criterion is expected.

Acceptable level has been considered independently: It is possible to demonstrate multiple things using a variety and mix of methods. However, for the higher order environmental impacts and higher order risks it is expected that the chosen evaluation method(s) are used only to demonstrate that environmental impacts and risks will be of an acceptable level. It is more challenging to use the same evaluation to simultaneously complete two tasks e.g. demonstrate ALARP and acceptable levels, detail likelihood and consequence levels, evaluate multiple impacts or risks, or evaluate an impact and a risk together.

Evaluation outcomes are reproducible: The assessment undertaken by NOPSEMA seeks to understand whether or not, using the same method and information, our specialists agree with the conclusions of the titleholder.

5. Criterion 10A(d) Environmental performance

Sub-regulation 10A(d) requires an EP to provide for appropriate environmental performance outcomes (EPOs), environmental performance standards (EPSs) and measurement criteria. An EPO is directly linked to an acceptable level. Similarly, an EPS is directly linked to a control measure and thus will relate to the control measures adopted to reduce environmental impacts and risks to ALARP.

The environmental performance required to be met is defined by the result of the environmental assessment. This is because the assessment will have clearly shown which control measures are necessary to reduce environmental impacts and risks to ALARP and achieve the acceptable level. As such, the control measures and their associated environmental performance are the transition point from the theory of an assessment to the practice of environmental management.

This criterion is primarily concerned with control measures that contribute to the reduction of impacts and risks. It is not concerned with the Environmental Management System (EMS) of the titleholder. This distinction is important as it provides focus for setting the environmental performance of the activity to the systems, equipment, people and procedures that reduce environmental impacts and risks. Other measures, such as the responsibilities, practices, processes and resources used to manage the environmental aspects of the activity should then be covered by the EMS. NOPSEMA assesses the EPOs and EPSs holistically meaning that when taken together, the EPOs and EPSs set for the activity must be appropriate.

5.1. Specific factors influencing decisions

Effectiveness of control measures: Control measures are required to be effective in reducing environmental impacts and risks to ALARP and to an acceptable level. Therefore to have appropriate EPSs the titleholder is expected to detail how effective the adopted control measures are required to be. Effectiveness of control measures can be broken down to the functionality, availability, reliability, survivability, independence and compatibility of the control measure.

Measurability of performance: It must be clear that each EPO and EPS ensure the environmental performance of the titleholder and the adopted control measures can be measured against those EPOs and EPSs. The EPOs document the measureable level of environmental performance, which if met, show that an environmental impact or environmental risk will be managed to its acceptable level. The EPSs document the level of performance that control measures must meet in order to manage an environmental impact or an environmental risk to ALARP and to its acceptable level. This is critical for both the titleholder and NOPSEMA as these indicators set the levels of performance against which compliance can be measured on an ongoing basis.

Evidence-based compliance: It must be clear that the titleholder has considered how it will be able to confirm that the stated levels of environmental performance are being met. It follows that NOPSEMA would be able to inspect compliance by the same means. Appropriate measurement criteria will outline the benchmarks or other evidence that will be used to signify whether or not a level of performance set by the EPOs and EPS will be achieved.

The EP must provide for appropriate environmental performance outcomes, environmental performance standards, and measurement criteria

Structure and distinction of terms: There are many ways to structure and present the environmental performance that the titleholder will meet for the life of the activity. Whatever the format, it is important that the descriptions of the control measures, EPOs, EPSs and measurement criteria align with their definitions in r 4 of the Environment Regulations. It is equally important that the relationship between them is made clear in the EP as individual elements of this criterion are assessed holistically. Therefore, there should be clear linkages between the control measures, EPOs, EPSs and measurement criteria. Titleholders often achieve this with tables related to an environmental impact or environmental risk of the activity.

Clarity of how a control measure will perform: The assessment considers the overall clarity, precision and measurability of the levels of performance stated by the titleholder. EPOs that start with verbs such

as 'minimise', 'reduce' and 'limit', introduce ambiguity about the actual outcome the titleholder aims to achieve and should be avoided. EPSs that do not contain a parameter that can be measured should also be avoided. EPSs should use a standard measure such as speed, distance, time, pressure, temperature, concentrations, weights, volumes, etc.

5.2. Making a decision

The assessment undertaken by NOPSEMA seeks to understand the quality and effectiveness of the EPOs and EPSs proposed by the titleholder to ensure they act as conditions against which environmental performance can be measured, monitored and enforced. The EP should provide for appropriate EPOs, EPSs and measurement criteria that function as the conditions that deliver ALARP and acceptable levels of environmental impacts and risks. This point is reached when the EPOs, EPSs and measurement criteria are:

Connected to the adopted control measures:

NOPSEMA examines the connection between the control measures, the EPOs and EPSs. Therefore the control measures have to be clearly connected to at least one EPO and have at least one EPS. In practice it is highly likely that a control measure will have more than one EPS. It is possible that some environmental aspects of an activity (likely to be a lower order environmental impact or risk) will have been assessed and no control measures have been adopted for that impact or risk. In this circumstance an EPO would be appropriate and an EPS will not be required.

Connected to ALARP and acceptable levels: The EPOs set for the activity are expected to reflect the predicted level of an environmental impact or an environmental risk from the activity – remembering that these levels will have been previously demonstrated to be of an acceptable level. The EPSs set for the adopted control measures need to be clearly connected to the performance required by those control measures to reduce environmental impacts and risks to ALARP.

Easily monitored for compliance: NOPSEMA assesses how easily EPOs and EPSs can be monitored for compliance. This must be achieved through the measurement criteria. Titleholders are able to apply measurement criteria to more than one EPO or EPS however doing so can erode the ease with which compliance can be demonstrated. Measurement criteria may include records, statements, reports, data, actions or activities among other things. Retaining records of non-compliance only is insufficient, as it does not guarantee that the control measure is performing as effectively as it is required to.

Compatible with each other: It has to be clear that the EPOs and EPSs work together in a complementary manner to ensure the predicted levels of impact and risks will not exceed the defined acceptable levels of the same impact and risk. It is useful to think of an EPO as an independent verifying measure of whether or not the control measures taken individually are effective in meeting the set EPSs, and taken collectively operate to ensure the acceptable level will be met.

The EP provides for appropriate EPO's, EPS's and measurement criteria when they function as the conditions that deliver ALARP and acceptable levels of environmental impacts and environmental risks

6. Criterion 10A(e) Implementation strategy

Sub-regulation 10A(e) requires that the EP include an appropriate implementation strategy and monitoring, recording and reporting arrangements. An EP must contain an implementation strategy for the activity (subreg 14(1)).

The implementation strategy content requirements in r 14 address four key themes:

1. A description of the Environmental Management System (EMS)12 for the activity which includes elements specified in subregs 14(3)-(5).
2. Arrangements for monitoring, review and reporting of the titleholder's environmental performance and implementation strategy (subregs 14(2), 14(6) and 14(7)).
3. Preparedness for responding to oil pollution emergencies through an OPEP and appropriate arrangements for environmental monitoring (subregs 14(8) – (8E)).
4. Arrangements for ongoing consultation with relevant authorities, persons and organisations (subreg 14(9)).

The environmental impact and risk assessment will have set the levels of environmental performance required to be met. The implementation strategy uses this context to ensure that adopted control measures continue to reduce the environmental impacts and risks to ALARP and to an acceptable level. NOPSEMA assesses the implementation strategy holistically. This means that when taken together, the inclusions required in the implementation strategy must be appropriate. The sampled assessment methodology used by NOPSEMA means that the implementation strategy is tested generally, and in detail in certain areas such as oil spill risks or impacts to matters protected by the EPBC Act.

The EP must include an appropriate implementation strategy and monitoring recording and reporting arrangements

6.1. Specific factors influencing decisions

Australian and international standards applied: AS/NZS ISO 14001 provides guidance on environmental management systems (EMS). The implementation strategy identifies elements of an EMS which align closely to the specific requirements of this standard. The implementation strategy will usually specify all Australian and international standards that have been applied, or will be applied, in relation to the activity.

Management of knowledge: The elements of the implementation strategy all rely on the titleholder having an effective system for providing sufficient individual and collective knowledge, skills and experience to undertake the activity in the first place. Retaining that knowledge, skills and experience is also essential. This factor also covers external changes to the knowledge base of the titleholder and should consider how changes to legislation, scientific information, and relevant person changes affect the data set that underpins the ongoing management of environmental impacts and risks.

Management of learning: Incidents, tests, non-conformances, and near misses from the titleholder and from the rest of industry are all learning opportunities. The elements of the implementation strategy all rely on the titleholder capturing detailed improvements from these opportunities. The implementation strategy should also then specify how the titleholder intends to act on these learning opportunities.

Management of change: The elements of the implementation strategy all rely on the titleholder having processes to analyse, measure, and manage changes to the environmental aspects of the activity,

[12] The 'environmental management system' includes the responsibilities, practices, processes and resources used to manage the environmental aspects of an activity (regulation 4).

facility, management systems, organisational structure and human resources. As a minimum this should include consideration of environmental aspects of every change to ensure impact and risks as continually reduced to ALARP and to acceptable levels.

Management of communications: Effective communication is essential in delivering an appropriate implementation strategy. The inclusions in the implementation strategy will show the types, timing, and method of communication to be used by the titleholder in all aspects of the implementation strategy (i.e. within the titleholder and with relevant persons). The communication aspects of the implementation strategy will encourage two-way communication, maintenance of situational awareness, check assumptions, and verify effectiveness of communications.

The implementation strategy must provide for appropriate consultation with relevant authorities of the Commonwealth, State/Territory, and other relevant interested persons or organisations. This requirement applies to all aspects of the activity and should not be limited to 'relevant persons' given it is to include consultation that is to take place in the unlikely event of an oil pollution emergency. Titleholders should ensure that a clear process is documented in the environment plan that will facilitate timely identification and communication with stakeholders and the broader community who may be affected in an oil pollution emergency

Continuous improvement of the EMS: The implementation strategy for an activity is appropriate when there are effective means of ensuring the implementation of the EMS. This should include continual and systematic identification of deficiencies in the EMS and continual and systematic improvement of the EMS. It may be useful for titleholders to set performance standards of the EMS for this purpose.

Verification where necessary: The implementation strategy requires various measures to verify where the levels of environmental performance set in the EP are being met. These measures may include, but not be limited to audits to verify written records of compliance with procedural controls, monitoring of relevant discharge stream parameters relative to levels of performance set and/or in-situ monitoring of environmental features to verify that actual extent, severity and duration of environmental impact are consistent with predicted acceptable levels. Engaging independent experts to perform verification is a measure sometimes proposed for technically complex or challenging verification tasks.

An EP provides for an appropriate implementation strategy and monitoring, recording and reporting arrangements when it will maintain ALARP and an acceptable level of environmental impacts and environmental risks for the life of the activity

Corporate culture: The implementation strategy gives insight into the corporate culture of the titleholder. It is important that the implementation strategy encourages open exchange of views and information. Other factors that display the culture of the organisation are the degree to which norms can be challenged, the recognition and handling of corporate blindness, and the willingness to test innovative new/revised systems for responsible environmental management.

6.2. Making a decision

The assessment undertaken by NOPSEMA seeks to understand the quality and effectiveness of the EMS proposed by the titleholder to ensure the ongoing identification and management of environmental impacts and risks. An EP requires an appropriate implementation strategy and monitoring, recording and reporting arrangements which will maintain ALARP and to an acceptable level of environmental impacts and risks for the life of the activity. This point is reached when the implementation strategy:

Meets the content requirements of the implementation strategy; the regulations specify what elements are to be included in the implementation strategy. While they are not all repeated here it should be noted that the implementation strategy must contain, in full, an Oil Pollution Emergency Plan. A separate information paper has been developed setting out this requirement in more detail.

Reflects reality: The implementation strategy needs to provide a comprehensive and realistic description of how the environmental impacts and risks from the activity will continue to be managed. NOPSEMA uses intelligence gathered from its inspection and investigation activities to inform what proposals may, or may not, be achievable by a titleholder. For example, in some EP's the logistical timeframes specified in the EP have simply been impossible to meet.

Is consistent with the rest of the EP: The implementation strategy should have a basis in the environmental assessment undertaken and should describe how the control measures adopted, and other relevant arrangements identified, will be implemented to achieve the environmental performance outcomes, environmental performance standards and requirements of an implementation strategy. The implementation strategy needs to identify how the implementation of control measures will be sufficient to meet the requirements that have been set in the EP and agreed by the regulator by virtue of acceptance of the EP.

Is comprehensible to users: A user of the implementation strategy should be able to clearly understand what needs to be done to manage environmental aspects of the activity to ALARP and to below acceptable levels of impact and risk. The implementation strategy should be clear enough to ensure that all users of the EP are supported in delivering the environmental performance required.

Includes all aspects of a management system planning cycle: No particular management system model is correct or best; but it is generally recognised that management systems are fundamentally similar. Compliance with the regulations does not require any particular standard or model be used. However, adoption of an international/national standard may assist a titleholder by providing a recognised framework on which to base their specific EMS. Typically an implementation strategy planning cycle will include the following elements;

- Policy and objectives
- Planning
- Implementation
- Monitoring and evaluation
- Audit and review
- Continuous improvement.

Verifies uncertainties in control measures: The implementation strategy should include a suite of verification measures to ensure that levels of environmental performance are being met. It is important that the type and level of verification is aligned with the conclusions of the evaluation of impacts and risks. For example, where there is residual uncertainty relating to the effectiveness of control measures, verification should be proposed to test whether predicted levels of performance are being met. As the titleholder becomes more certain of the environmental performance of their adopted control measures it may be reasonable to reduce the further verification proposed to monitor its ongoing performance.

Where there is uncertainty in the level of environmental benefit gained by adoption of control measures, titleholders are expected to include measurement criteria that validate the effectiveness of controls in protecting the environment.

Manages errors, deviations and ineffective control measures: There should be sufficient confidence that a titleholder is able to manage unanticipated changes to the activity. There needs to be an effective and timely means of addressing problems before they become critical to the environmental management of the activity.

Complies with the Act and regulations and any other environmental legislation: This requirement ensures that a connection is made by the titleholder to reg 13(4) and that legislative and other requirements have been captured by the titleholder's implementation strategy. The NOPSEMA assessment seeks to ensure that the titleholder has consistently applied the legislative and other requirements to the environmental management of the activity and is able to demonstrate how those requirements will be met.

The environment plan must not involve the activity, or part of the activity, being undertaken in any part of a World Heritage Property

7. Criterion 10A(f) World Heritage Properties

Subregulation 10A(f) stipulates that the activity or part of the activity described in the EP is not to be undertaken in any part of a declared World Heritage Property, other than arrangements for environmental monitoring or responding to an emergency.

A petroleum activity is operations or works in an offshore area undertaken for the purpose of exercising a right conferred on a petroleum titleholder under the OPGGS Act by a petroleum title; or discharging an obligation imposed on a petroleum titleholder by the OPGGS Act or a legislated instrument under the OPGGS Act.

In practice, this is taken to mean the petroleum activity itself and any other operations or works necessary for meeting the objectives of that activity. An activity does not include environmental impacts or risks that wholly or partially result from an activity. Monitoring or response arrangements are part of petroleum activities, but are specifically excluded from this criterion due to their intent to remediate oil spills.

7.1. Specific factors influencing decisions

Description of the activity: EPs must contain a comprehensive description of the activity including its location(s), details of construction and layout, timetables and other information relevant to the consideration of environmental impacts and risks. This is a requirement under subregulation 13(1) which provides the context of the activity.

Listed World Heritage Properties: World Heritage properties are sites that are recognised under the World Heritage Convention as being of international significance because of their outstanding natural values and/or cultural values. A declared World Heritage Properties has a specific meaning under the EPBC Act. It is described as a property included in the World Heritage List, or if not yet on the list, specified in a declaration made under s 14 of the EPBC Act. A copy of the list is available from the Department of Environment and Energy website.

World Heritage Property values and sensitivities: Where a declared World Heritage Property may be affected by the activity the description of the environment in the EP will include details of the values, including outstanding universal values, of that property or properties. For World Heritage Properties this will also include consideration of the statement of Outstanding Universal Value of the Property.

Environmental impact and risk assessment: Where planned activities (e.g. drill cutting discharges or acoustic disturbance) and adopted control measures (e.g. oil spill response strategies) are proposed outside of a declared World Heritage Property but may affect the environment within a property, it is expected that the environmental assessment reflects the international significance of outstanding natural values and/or cultural values that may be affected. A more comprehensive and thorough level of detail and evaluation within the environmental assessment is expected in these circumstances. In all

cases, the EP must demonstrate that any environmental impact and any environment risk (including those predicted within the property) will be of an acceptable level and continue to be reduced to ALARP.

Consultation with relevant persons: Titleholders should familiarise themselves with NOPSEMA's commitments under the Program endorsed under the EPBC Act including those that relate to World Heritage Properties and demonstrate how these will be met in the EP. Titleholders should also be aware that advisory committees may be in place for World Heritage Properties and these committees may be relevant persons for the purpose of consultation as well as the Director of National Parks.

7.2. Making a decision

An EP does not include an activity or part of an activity, other than arrangements for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage property when:

No activity will occur in a World Heritage Property: It must be apparent that the activity is not within the boundaries of a listed WHP. The activity description should clearly depict the location of the activity in relation to any listed WHP boundaries in the proximity of the activity, or possibly affected by the activity.

Environmental impacts and risks will be ALARP and of an acceptable level: It is expected that where an activity has identified any environmental impacts and risks on a World Heritage Property a more comprehensive and thorough environmental assessment will have occurred. No additional assessment is undertaken for this element as it is primarily assessed under subregulation 10A(b) and 10A(c).

Environmental monitoring and responding to an emergency: Activities conducted outside a declared World Heritage Property may present environmental impacts and risks within the property. For oil spill response and monitoring, these activities are considered part of the activity and as such need to be considered within the environmental assessment. The environmental impacts and risks to the values and sensitivities of the World Heritage Property will need to be demonstrated to be reduced to ALARP and to below an acceptable level of environmental impact and environmental risk.[13]

8. Criterion-10A(g) Consultation requirements

Subregulation 10A(g) requires the EP to demonstrate that the titleholder has carried out the consultations required by Division 2.2A of the Environment Regulations and that the measures (if any) that the titleholder has adopted, or proposes to adopt, because of the consultations are appropriate.

The regulations establish consultation requirements in three areas:

- Establishing a requirement to consult during the preparation of an EP through identifying who needs to be consulted, requiring sharing of information and allowing time for consideration of this information (reg 11A).
- Requiring titleholders to disclose information in an EP about consultation carried out to allow NOPSEMA to independently assess the consultation undertaken (reg 16(b)).
- Setting out criteria for NOPSEMA to decide whether it is reasonably satisfied that appropriate consultation has been undertaken (reg 10A(g)).

These requirements comprise the necessary consultation framework of an appropriate consultation process and should be read together. Separate provisions exist for consultation undertaken during preparation of an Offshore Project Proposal. Consultation undertaken through this process can be used to assist in the preparation of an EP but should be seen as a separate process.

[13] Permissions may be required for response activities in these areas.

Beyond the preparation stage of an EP, titleholders are required to have a plan in place for ongoing consultation to be undertaken during the activity. This is part of the implementation strategy for the activity and addressed in Section 6 of this guideline.

8.1. Specific factors influencing decisions

The consultation process used: It is useful to see the Environment Regulations as seeking to drive effective consultation processes that provide natural justice to those people who may be potentially affected by a proposed activity, and allow them to have their views heard before a regulatory decision is made. Effective consultation should enable the hearing of views and contribute to titleholder understanding in the management of impacts and risks of the activity. It should be undertaken with a genuine desire to further understand the environments in which oil and gas companies operate.

Information sought from relevant persons to inform the evaluation of impacts and risks: Information gathered through the consultation process gives important context to accurately plan activities to avoid and/or minimise impacts and risks on others and the environment. Agreement on the outcome of the process is not always reached and not necessarily required. NOPSEMA's assessment focuses on the process followed and rationale for decisions where conflict exists.

The transparency and completeness of the report on consultations: The titleholder is required to submit a report on all consultations with relevant persons. NOPSEMA uses this information to make decisions about the appropriateness of the consultation undertaken. The consultation report must include all details of consultations undertaken during the course of preparing an EP, including:

- the consultation process undertaken
- how a titleholder has identified relevant persons
- whether a reasonable period and sufficient information were provided to relevant persons
- the name of the relevant persons consulted
- a brief description of the functions, interests or activities of each relevant person
- the dates consultations occurred
- the method of consultation (i.e. email, phone call or meeting).

The consultation report: NOPSEMA looks for the following in the consultation report:

- A succinctly written summary of each response made by a relevant person received during the preparation of the EP. This applies to all responses provided by a relevant person regardless of format and received prior to acceptance of the EP.
- The assessment of merits must clearly identify and address each specific objection or claim raised. It must also logically support, with sufficient evidence, the conclusions drawn by the titleholder. An 'objection or claim' is taken to mean:
  - to express opposition, protest, concern or complaint about the proposed activities; a request or demand that certain action be taken by the titleholder to address adverse impacts; and

The environment plan must demonstrate that the consultation required have been carried out and the measures adopted are appropriate

- an assertion that there will be an adverse impact; or allegation to cast doubt about the manner in which the activities will be managed.

- NOPSEMA considers that there is a direct link between the outcomes of consultation and demonstrating that impacts and risks of an activity have been reduced to ALARP and will be of an acceptable level. In addressing objections or claims raised by relevant persons, a titleholder must demonstrate that the risk or impact in question has been reduced to ALARP and will be of an acceptable level.
- The titleholder must provide a statement that addresses each element of the objection or claim made by a relevant person. Where the titleholder implements control measures to resolve objections and claims, the titleholder must clearly communicate this to the relevant person. This should occur prior to submission of the EP and must be included in the report on consultation.
- Copies of all written responses provided by a relevant person must be included in the report. Extracts or summaries of responses by relevant persons prepared by a titleholder will be considered to represent an incomplete report and a failure to demonstrate that appropriate consultation has been carried out.

An EP has demonstrated the consultation process has been followed and the measures adopted are appropriate when relevant persons affected by an activity are aware of the environmental impacts and risks and have received natural justice prior to the submission of the EP

8.2. Making a decision

An EP has demonstrated the consultation process has been followed and the measures adopted because of the consultations are appropriate when relevant persons affected by an activity are aware of the environmental impacts and risks and have received natural justice prior to the submission of the EP. This point is reached when:

Relevant persons have been consulted with: Reasonable efforts to determine who may be affected by the activity must be applied. The regulations describe five categories of relevant persons with whom a titleholder must consult. NOPSEMA will consider consultation incomplete without consultation with each relevant authority, person and organisation.

- A titleholder must consult with each Department or agency of the Commonwealth, State or Territory to which the activities to be carried out under the environment plan, may be relevant. This is taken to mean a Government department or agency that has responsibility for managing or protecting the marine environment from pollution. This may include those with responsibilities for environmental and fisheries management, oil pollution management and response, defence and communications, maritime/navigational safety, marine parks and native title.[14]

[14] More information regarding the appropriate agency for consultation purposes can be found in the Australian Government Guidance – Australian Government agencies' roles and relevance under the Offshore Petroleum and Greenhouse Gas Storage Act 2006.

- A titleholder must consult with the Department of the responsible state, or Northern Territory minister. This is taken to mean the department that has responsibilities for offshore petroleum or energy resources in the adjacent state or Northern Territory.
- The titleholder must consult with persons or organisations whose functions, interests or activities may be affected by the activities to be carried out under the environment plan. This is taken to mean a person or organisation that may be affected by the petroleum activity. Petroleum activity is defined in regulation 4 of the Regulations as meaning 'operations or works in an offshore area undertaken for the purpose of:
  - Exercising a right conferred on a petroleum titleholder under the Act by a petroleum title; or
  - Discharging an obligation imposed on a petroleum titleholder by the Act or a legislative instrument under the Act.'
- A titleholder must consult with any persons or organisation that it considers relevant. Titleholders should consult with a range of stakeholders as part of informing good environmental management practice. It is at the titleholder's discretion to determine who should be consulted and taken to be a relevant person. Existing environmental knowledge, past experience, internet research, initial campaign emails, existing networks and forums, social media, and other research tools may all be used by titleholders to understand who may fall into this category.

A clear process, system or method should be used to identify persons that may be relevant and support the case made that appropriate consultation has been undertaken in the course of preparing the environment plan. This process should be documented. Once a person or organisation has been identified as a 'relevant person' all consultation is to be documented in the report on consultation

In deciding if relevant persons have been consulted NOPSEMA will consider publicly available information such as published consultation expectations, the quality of information relied upon to exclude persons from consultation who may be relevant, information provided by other relevant persons during consultation, and information provided directly to NOPSEMA from relevant persons.

Relevant persons' functions, interests and activities have been defined: NOPSEMA scrutinises the methods used to determine who is a relevant person. The terms 'functions', 'interests' or 'activities' are three separate criteria for identifying whether a person or organisation is a relevant person. If any of a person's functions, interests or activities may be affected by an activity, they are considered to be a relevant person and must be consulted. NOPSEMA considers the following definitions in deciding if consultation has been undertaken with all relevant persons.

- Functions are a person or organisation's power, duty, authority or responsibilities.
- Activities are a thing or things that a person or group does or has done.
- Interests are a person or organisation's rights, advantages, duties, and liabilities; or a group or organisation having a common concern.

Relevant persons have been provided 'sufficient information': Determining how a person, organisation or authority is affected requires provision of information about the way in which the proposed activity might impact on their functions, interests or activities. NOPSEMA needs to see information that demonstrates the titleholder has:

- shared information that is targeted to relevant persons' needs
- details the proposed activity and any impacts and risks that may be relevant to them
- put forward information on how an impact or risk may affect that relevant person
- included the control measures proposed to manage the potential impacts to that relevant person.

Determining what is sufficient will be influenced by the degree to which the relevant person may potentially be affected by the activity. NOPSEMA requires the information provided to be relevant, accurate and clear. The provision of information will likely need to be repeated during the development of an EP. More specific and targeted information may need to be provided following initial consultation to ensure sufficient information is provided.

A reasonable period has been provided: The time required for consultation varies depending on the individual circumstances of the relevant person, the proposed activity, the extent of impact and risks on that relevant person and the level of information that has been provided. NOPSEMA expects titleholders to provide more time to a relevant person significantly affected or where the effect is uncertain. In addition, some relevant persons may require longer timeframes than others, such as those that do not have resources dedicated specifically to liaise with the petroleum industry. NOPSEMA considers sufficient time will allow:

- a relevant person to assess information
- and provide a response detailing any 'objections or claims'
- for the titleholder to consider responses in the developing the EP
- for the titleholder to reply back to the relevant person on how they propose to address any 'objections or claims' in the EP.

This must occur prior to submission of the EP. Additional time may be needed in circumstances where more specific and targeted information has been provided following initial consultation. The above steps should be repeated in these cases.

In the event that no response is provided by a relevant person, it must be apparent to NOPSEMA that reasonable attempts have been made to elicit a response. A variety of methods of communication should be considered and attempted. The effort spent should be considered in relation to the above factors such as the degree to which the relevant person may be affected by the activity. For example, if a relevant person is unresponsive to the reasonable efforts of a titleholder to engage with them, it might still be determined that a reasonable opportunity to raise an objection or claim had been allowed.

Objections and claims have been resolved (as far as possible): In some circumstances titleholders and relevant persons may be unable to reach agreement on an activity proceeding as proposed. Occasionally these issues are associated with a broad objection to resource exploitation or differing views on the significance of an environmental impact or risk. In these cases, NOPSEMA expects to read in the submission that:

- Reasonable attempts have been made
- Reasonably available options have been explored for resolving or mitigating the degree to which a person may be affected, particularly through control measures
- The relevant person has been informed about how the titleholder has addressed their objections or claims
- The relevant person has been made aware of how their objections or claims are going to be represented to NOPSEMA

9. Criterion 10A(h) Complies with the Act and regulations

Subregulation 10A(h) requires that the EP complies with the Act and the regulations. This is considered test of compliance with the relevant aspects of the OPGGS Act and the associated Environment Regulations.

There are numerous requirements within the OPGGS Act that must always be met by a titleholder. At the point of accepting the EP the test applied by NOPSEMA is one where all items relevant to the acceptance of the EP must be shown to be complied with.

The decision about whether or not the NOPSEMA decision maker is or is not reasonably satisfied is made by judgement, taking into account assessment findings made by NOPSEMA environmental specialists. Findings that record how the decision maker became reasonably satisfied will be made with specific regard to the content requirement regulations. These findings will include the considerations, facts, reasons, and conclusions of NOPSEMA assessors.

The EP complies with the OPGGS Act and regulations when the EP includes the matters set out in regs 13-16 and when the EP meets the criteria for acceptance. The EP may then be accepted if the titleholder is also compliant with s 571(2) of the OPGGS Act.

10. Sample of decision-making questions

10.1. Nature and scale

- Is it clear what will, might and won't occur under this EP?
- Does the titleholder know enough about the environment that may be affected to be able to conduct an appropriate impact assessment and risk assessment?
- How has the titleholder made themselves aware of the legislative and other requirements that apply to the activity?
- What efforts have been made to understand the environmental impacts and risks from this activity?
- Is it clear that there is enough information available with which to perform a suitable impact/risk assessment?
- Have all the applicable environmental impacts and risks typical for this type of activity been identified?

10.2. ALARP

- What method(s) have been selected and have they been used consistently across all impacts and risks?
- What control measures have been rejected and what are the reasons for rejection?
- Has the titleholder explained why a certain level of impact or risk has been assigned?

The environment plan must comply with the Act and regulations

- Does the titleholder deviate from industry codes/standards and explain why this is appropriate for this activity?
- Has there been a proper exploration of alternative, additional, and improved control measures for higher order impacts and risks?
- Would NOPSEMA make the same environmental management decision given all the relevant factors explained by the titleholder in the EP?

10.3. Acceptable level

- Is the evaluation method used systematic and has it been followed?
- Are the outcomes of the evaluation defensible?
- Was the precautionary principle activated and if so, how has it been applied?
- Has an acceptable level been demonstrated separately to ALARP?
- With the same information and the same method, can NOPSEMA reproduce the same result as the titleholder?

10.4. Environmental performance

- Is the environmental performance of the titleholder connected to the control measures adopted for the activity?
- Is the environmental performance of the titleholder connected to the demonstrated acceptable and ALARP levels of impacts and risks?
- Can compliance be easily monitored?
- Do the EPO's, EPS's and measurement criteria work together?

10.5. Implementation strategy

- Have all the content requirements of regulation 14 been met?
- Does the implementation strategy reflect reality?
- Is the implementation strategy consistent with the rest of the EP?
- Can anyone use the implementation strategy to manage environmental impacts and risks?
- How will the titleholder continually improve their performance over time?

How will underperformance of control measures be managed?

10.6. World Heritage Properties

- Will the activity occur in a World Heritage Property?
- Are environmental impacts demonstrated to be of an acceptable level and reduced to ALARP?
- Are all environmental risks demonstrated to be of an acceptable level and reduced to ALARP?
- Has the titleholder considered how they need to respond and monitor an oil spill that enters a World Heritage Property?

10.7. Consultation

- Could the relevant person consulted make an informed decision about how they may be affected by an activity?
- Is it clear that information gathered through consultation has informed the following:
- the description of the environment
- the evaluation of impacts and risks
- the adoption of control measures?
- Were the relevant persons aware of how to provide information, how to get more information, and how their views were taken into account?

- Are the consultation efforts of the titleholder proportionate to the degree to which that relevant person will be affected?
- Has the titleholder met any publicly available expectations of consultation held by that relevant person?
- Are the reasons for selecting/rejecting additional measures proposed by relevant person reasonable?

Appendix 1 – Summary of factors that influence decisions

SUMMARY OF FACTORS THAT INFLUENCE DECISIONS	
Nature and Scale	☐ The extent and duration of the activity ☐ The certainties of the activity ☐ The flexibility sought for the activity ☐ The sensitivity and vulnerability of the receiving environment ☐ People and communities affected ☐ Cumulative impacts and risks ☐ Legislative context
ALARP	☐ Each impact and risk has been evaluated ☐ Effort in exploring further control measures ☐ The clarity and comprehensiveness of the costs and the environmental benefits ☐ The certainty of the result
Acceptable levels	☐ Internal context ☐ External context ☐ Legislation ☐ Industry standards and best practices ☐ Comparison made between predicted levels and acceptable levels
Environmental performance	☐ Effectiveness of control measures ☐ Measurability of performance ☐ Evidence-based compliance ☐ Structure and distinction of terms ☐ Clarity of how a control measure will perform
Implementation strategy	☐ Australian and international standards applied ☐ Management of knowledge ☐ Management of learning ☐ Management of change ☐ Management of communication ☐ Continuous improvement of the EMS ☐ Verification where necessary ☐ Corporate culture
World Heritage Properties	☐ The description of the activity ☐ Listed World Heritage Properties ☐ Word Heritage Property values and sensitivities ☐ The environmental impact and risks assessment ☐ Consultation with relevant persons
Consultation	☐ The consultation process used ☐ Information sought from relevant persons to inform the evaluation of impacts and risks ☐ The transparency and completeness of the report on consultations. ☐ The consultation report

Appendix 2 – Summary of considerations in making a decision

SUMMARY OF CONSIDERATIONS IN MAKING A DECISION	
Nature and Scale	☐ The activity is clearly scoped and bounded ☐ The environment that may be affected is suitably understood ☐ The requirements that apply will be met ☐ The impacts and risks are suitably understood ☐ The analysis of how the activity and environment interact
ALARP	☐ The evaluation method is systematic ☐ The evaluation method selected has been followed and applied thoroughly control measures for treating that impact or risk. ☐ The outcomes are defensible ☐ ALARP is considered independently ☐ Evaluation outcomes are reproducible
Acceptable levels	☐ Definition of an acceptable level ☐ Action in the presence of scientific uncertainty ☐ The evaluation method is systematic ☐ The evaluation method selected has been followed and applied thoroughly ☐ The outcomes are defensible ☐ Acceptable level has been considered independently ☐ Evaluation outcomes are reproducible
Environmental performance	☐ Connected to the adopted control measures ☐ Connected to ALARP and acceptable levels ☐ Easily monitored for compliance ☐ Compatible with each other
Implementation strategy	☐ Meets the content requirements of the implementation strategy ☐ Reflects reality ☐ Is consistent with the rest of the EP ☐ Is comprehensible to users ☐ Includes all aspects of a management system planning cycle ☐ Verifies uncertainties in control ☐ Manages errors, deviations and ineffective control measures ☐ Complies with the Act and regulations and any other environmental legislation
World Heritage Properties	☐ No activity will occur in a World Heritage Property ☐ Environmental impacts and risks will be ALARP and of an acceptable level ☐ Environmental monitoring and responding to an emergency
Consultation	☐ Relevant persons have been consulted with ☐ How relevant persons' functions, interests and activities have been defined ☐ Provision of 'sufficient information' to relevant persons ☐ The reasonableness of the period provided ☐ How objections and claims have been resolved
Complies with the Act and regulations	☐ Whether the content requirements have been met ☐ The titleholder demonstration of compliance with s571(2)