NOPSEMA
Australia's offshore energy regulator

GUIDANCE NOTE

Well operations management plan – content and level of detail

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Core concepts

- The Well Operations Management Plan (WOMP) submitted by a titleholder to NOPSEMA must comply with the contents requirement of Part 5 of the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011 and the corresponding laws of each state or territory, where powers have been conferred upon NOPSEMA.
- This guidance note provides guidance on the content and level of detail expected to be included in a WOMP submitted to NOPSEMA for acceptance.
- The WOMP must be appropriate for the nature of the activities to be carried out in the title area.
- Only by inclusion of a sufficient level of detail in the WOMP will NOPSEMA be able to make a decision on the appropriateness of the WOMP in accordance with the regulations.
- The WOMP must be a stand-alone document that is sufficient to meet the contents and level of detail requirements of the regulations without the need to access other documents external to the WOMP.
- The WOMP must identify the technical and managerial aspects of managing the risks to integrity of the wells.
- The adopted well integrity control measures described in the WOMP for any identified risk must be shown to collectively eliminate the risk or reduce it to as low as is reasonably practicable.
- Overall, a well-structured, coherent WOMP will facilitate a titleholder's ability to demonstrate a clear understanding of the factors that influence risk and the controls that are critical to minimising risk to the integrity of the well(s).

Table of contents

Abbreviations/acronyms

ALARP	As low as reasonably practicable
BSW	Basic sediment and water
CO_2, H_2S, H_2O	Carbon dioxide, hydrogen sulphide, water
MoC	Management of change
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
OPGGS Act	Offshore Petroleum and Greenhouse Gas Storage Act 2006
OPGGS (RMA)	Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011
WOMP	Well operations management plan

Key definitions

In force	In relation to a WOMP; has been accepted by NOPSEMA and acceptance has not been withdrawn and operation of the plan has not ended.
Integrity	In relation to a well; means the capacity of the well to contain petroleum, a greenhouse gas substance, or any other substance (regulation 5.02)
Regulator	NOPSEMA – for a petroleum exploration permit, petroleum retention lease, petroleum production licence or infrastructure licence (subregulation 5.02(a))
Regulations	Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011

Following are some useful definitions (The Macquarie Dictionary Online © 2007) for verbs and nouns used in the regulations. They are a suggested starting point only and are not a legal interpretation.

Adequate:	equal to the requirement or occasion; fully sufficient, suitable or fit
Appropriate:	suitable or fitting for a particular purpose, person, occasion, etc.
Comprehensive:	inclusive; comprehending much; of large scope
Consider:	to make allowance for; to regard with consideration or respect
Demonstrate:	to describe and explain with the help of specimens; to manifest or exhibit
Describe:	to set forth in written or spoken words; give an account of
Detail:	particulars collectively; minutiae; item by item
Evidence:	grounds for belief: that which tends to prove or disprove something; proof
Identify:	to recognise or establish as being a particular person or thing
Include:	to contain, embrace, or comprise, as a whole does parts or any part or element; to contain as a subordinate element; involve as a factor
Integrated:	to make up or complete as a whole, as parts do
Provide for:	to make arrangements for supplying means of
Specify:	to mention or name specifically or definitely; state in detail
Summary:	a brief and comprehensive presentation of facts or statements; an abstract, compendium, or epitome
Systematic:	having, showing, or involving a system, method, or plan

1. Introduction

1.1. Intent and purpose

This document provides guidance on the preparation of a WOMP for a well(s) as required under Part 5 of the Commonwealth OPGGS (RMA) Regulations and the corresponding laws of each state or territory where powers have been conferred upon NOPSEMA.

This guidance note is part of a suite, available on the NOPSEMA website, providing guidance on a range of aspects of the regulations. The purpose of the guidance is to explain the individual objectives of the regulations, identify issues to be considered and provide practical examples to illustrate the concepts and potential approaches to meet the requirements of the regulations. The guidance is intended for use by industry and NOPSEMA Well Integrity Specialists in the preparation and assessment of WOMPs respectively.

Guidance notes indicate what is required by the regulations, discuss good practice and suggest possible approaches. A regulatory requirement is indicated by the word **must**, while other cases are indicated by the words should, may, etc. NOPSEMA acknowledges what is good practice, and what approaches are valid and viable, will vary according to the nature of the petroleum title areas and the well(s).

This guidance note in particular, 'WOMP content and level of detail', provides guidance on the content and level of detail expected to be included in relation to each of the major aspects of a WOMP submission (e.g. management system description, well activity description, risk assessment) such that it complies with the requirements of the regulations and provides evidence that risks are reduced to a level that is ALARP. It is not intended to provide detailed formulaic solutions; rather the aim is to provide a common basis for the preparation and assessment of WOMPs.

Titleholders seeking further clarification with regard to WOMP content requirements may contact NOPSEMA.

This guidance note is not a substitute for legal advice on interpretation of the regulations, nor the OPGGS Act under which the regulations have been made.

1.2. Summary of legislative requirements

Summary tables of the legislative requirements are included as a quick reference throughout this document. However, the reader is encouraged to work directly from the regulations themselves.

With respect to WOMP content aspects of this guidance note, the relevant regulations are regulations 5.08 and 5.09.

The acceptance criteria detailed in regulation 5.08 for new and revised WOMPs are the requirements for a WOMP to be appropriate to the well and to the activities conducted in the title area.

The level of detail required in a WOMP to satisfy NOPSEMA that the plan is appropriate to the well and the activities conducted on the well, is a function of a number of factors such as the level of risk, complexity and uncertainty.

Given the over-arching nature of the appropriateness requirements, a titleholder should apply this test to all the content requirements as the plan is being developed e.g. with respect to regulation 5.09 (1)(a) – (l) of the regulations:

"Have I included sufficient detail in the description of the well, and the well activities relating to the well to which the plan applies?"

2. General considerations

2.1. WOMP must be appropriate

Regulations – Part 5: WOMP acceptance criteria

Reg. 5.08(b) The plan is appropriate to the nature and scale of the well, and of the well activities relating to the well to which it applies

In order to meet the acceptance criteria, descriptions within the WOMP must be relevant to the well and activities. That is, there should be a suitable level of detail that accurately describes the well, the operating envelope, the management system and the activities that take place at or in connection with the well.

There is also an element of proportionality with respect to the level of detail: a higher level of risk or uncertainty should result in an equivalently higher level of detail in the WOMP. For example, greater detail might be expected regarding a high pressure high temperature (HPHT) well versus a normally pressured well.

The test of appropriateness applies to each and every aspect of regulations 5.09(1)(a) to (l).

Titleholders should be mindful that the WOMP is a 'permissioning document' and statements made within the WOMP should be clear and unambiguous as these become legally binding commitments that the titleholder must meet once the WOMP is accepted by NOPSEMA and is 'in force'.

2.2. Stand-alone document

The WOMP must be a stand-alone document that is sufficient to meet the contents and level of detail requirements of the regulations without need for NOPSEMA to access other documents external to the WOMP. There may be descriptions of other documents in the WOMP, but they must be described in sufficient detail within the WOMP to meet the specific regulatory requirement. However, reference documents themselves should generally not be submitted as part of the WOMP, and hence do not become part of the WOMP in force; only the descriptions of the source documents become part of the WOMP in force.

During a WOMP assessment, a request for further written information may be requested by NOPSEMA with regard to the description of a reference document. The document itself will not generally be requested.

In order to supply descriptions of elements in the WOMP, as opposed to copies of source documents themselves, the description of an element should:

- distil the points of value, the relevant features of the element
- outline the reasoning or the background thinking to the development of the element
- explain how it is connected to, or supports, other elements.

In relation to supporting studies, the WOMP should summarise the key findings and explain their significance. Assumptions should also be specifically noted to provide an understanding of the limitations that apply.

In the case of well management system procedures, the summary should be such that the WOMP describes the essential elements of how these documented systems contribute to the management of well integrity. As with any formal document relying on other material, the WOMP should employ a robust referencing system that is applied both internally and externally to the document.

For complex subjects that need to be described in the WOMP (e.g. well abandonment), titleholders should consider providing examples to help explain the issues.

2.3. Common weakness

There are two types of recurring issues that have been noted with respect to content and level of detail in previous WOMP submissions:

2.3.1. Insufficient detail

Simply listing elements or referencing documents will generally not provide a sufficient level of detail. Examples of this include:

- details in relation to well abandonment being limited to a reference to an internal guideline or policy
- specifying casing or tubing design safety factors without outlining the load cases that will be considered
- reference to a blowout contingency plan without providing a summary description
- reference to titleholder's Barrier Standard without providing a summary of barrier philosophy and standards
- reference to a competency system without outlining job titles and responsibilities.

2.3.2. Too much detail

Submitting copies of complete reference documents within the WOMP may not necessarily provide evidence that it complies with the regulatory requirements of the regulations. Common examples of this are the inclusion of:

- a complete well abandonment and suspension guideline containing multiple options without specifying the circumstances in which each option might be used
- a complete copy of a titleholder – drilling contractor well control interface document.

2.4. WOMP structure

The WOMP should have a coherent, integrated overall structure. There should be logical flow to the process that outlines measures to control the risks and the performance required from specific measures to maintain well integrity risk levels to ALARP.

The use of good editorial practice is essential: duplication of information (and the potential for contradiction) can be avoided by using effective internal cross-referencing within the WOMP document itself.

3. Matters that must be included in a WOMP

3.1. Description of the well and well activities

Regulations – Part 5: Content requirement

Reg. 5.09(1)(a) a description of the well, and the well activities relating to the well, to which the plan applies

A comprehensive description of the well and the activities to be covered in the WOMP is essential to set out the scope of the plan.

For example: Introduction, description of wells, lifecycle process, and description of activities. Tabulate areas covered by document: drilling, suspension, abandonment, production, workover, intervention etc.

Provide a list of abbreviations, terms and definitions that define jargon and a concordance table clearly indicating which section(s) of the WOMP address each requirement of the regulations.

Specify the title area(s) and well name(s) covered by the document, including outlined details of well type, location and purpose of the well(s) and provide a map of the area / location.

Provide a brief description of well activities that will be addressed by the plan (e.g. drilling, completion, workover, intervention, production, injection, suspension or abandonment). Include the information necessary to understand the activity, such as:

- well objectives
- locations and water depths
- programmed depths
- description of any materials and equipment to be used in undertaking the well activity
- barrier analysis
- production / injection rates
- barrier surveillance

Existing wells require a description that is sufficiently detailed to assess the current well integrity status. This can be provided most succinctly, but not exclusively, in the form of a well barrier diagram.

3.2. Well Integrity risk management process

Regulations – Part 5: Content requirement

Reg. 5.09(1)(b) a description of the risk management process used to identify and assess risks to the integrity of the well

Titleholders must apply appropriate risk analysis techniques (e.g. AS/NZS ISO 31000:2018). The methodologies employed should be described in the WOMP.

It is important to identify all risks having the potential to cause a loss of well integrity so that the control measures and performance standards for the performance outcomes to be adequately assessed. These risks must be detailed to facilitate compliance with regulation 5.09(1) (c) & (e).

3.3. Design, construction, operations and management of wells

Regulations – Part 5: Content requirement

Reg. 5.09(1)(c) a description and explanation of the design, construction, operation and management of the well, and conduct of well activities, showing how risks to the integrity of the well will be reduced to as low as reasonably practicable

This regulation entails a summary of the well management system, the well lifecycle integrity philosophy and a detailed risk assessment showing how these risks are reduced to as low as reasonably practicable. The content and level of detail must be sufficient for NOPSEMA to assess the well management system to be applied by the titleholder. Note that a summary of design and construction information is required even if the wells have already been drilled. The information must be appropriate to the level of activity to be conducted and should address, but not be limited to, the following:

- the purpose, scope and application of the well management system
- any relevant document hierarchy with explanations (e.g. local versus corporate)
- outline of core processes such as design methodologies, planning, program, operations
- the organisation, roles and responsibilities and competency management
- key performance indicators for the well management system
- audit and review processes e.g. for exploration wells a description of the peer review activity undertaken to support the pore pressure and fracture gradient predictive work.
- management of change processes
- organisational learning processes regarding well management
- a detailed risk register
- the geological and operational objectives for the well and well activities

- the known or predicted geology of the well or wells:
  - reservoir characteristics
  - geological trap
  - shallow hazards
  - pore pressures and fracture gradient details
  - porosity and permeability
  - depleted sands and loss/thief zones
  - temperature gradients
  - H2S and CO2 and other reservoir constituents
  - geotechnical hazards (faults, seismic anomalies, etc.)
- lifecycle – well design. Describe the well design philosophy, including:
  - casing/liner/tubing design philosophy and criteria, load cases and setting depths and geological variability (tabulate main criteria)
  - material standards (specify standards)
  - conductor analysis (outline philosophy)
  - wellhead design (outline philosophy)
  - kick tolerance criteria (outline philosophy)
  - pipe connection philosophy
  - corrosion standards (specify standards)
  - cementing philosophy (describe minimum requirements)
  - fluids philosophy - drilling, completion, intervention and production (describe minimum requirements)
  - well barrier standards (outline barrier philosophy and associated standards)
  - blowout contingency planning. (Describe minimum standards for planning)
- lifecycle – well construction. Describe the well construction philosophy including:
  - well control standards and barrier maintenance
  - well bore surveying standards, frequency and uncertainty requirements
  - casing/tubing verification and pressure testing requirements (specify acceptance criteria)
  - cement verification requirements for casing and cement plugs (specify minimum standards for annulus and plug lengths and verification methods).
- lifecycle – well operations. Describe the well operations philosophy covering:
  - well integrity management plan

- well monitoring / inspections
- well interventions
- well integrity remediation plan in event of failure
- well operational envelope

- lifecycle – well abandonment. Describe the well abandonment philosophy including:
  - well abandonment methodology (outline associated standards)
  - how the well is designed to facilitate future abandonment

3.4. Performance outcomes

Regulations – Part 5: Content requirement
Reg. 5.09(1)(d) a description of the performance outcomes against which the performance of the titleholder in maintaining the integrity of the well is to be measured

For the purposes of this regulation NOPSEMA considers the term 'outcomes' synonymous with 'objectives'.

The description of the well management system should provide descriptions of arrangements (policies, procedures etc.) for developing and setting performance objectives. The content and level of detail must be adequate to provide an appreciation of the processes that are applied.

The information must be appropriate to the level of activity to be conducted and should address the following:

- the process for development of performance objectives and measurement criteria
- a listing of the objectives with appropriate control measures and performance standards

As well as the examples provided below, ISO 16530-1 Petroleum and natural gas industries – Well integrity – Part1: Life cycle governance provides examples of performance standard for well barrier elements.

Example 1: A commonly performed drilling operation

Description	Performance outcome	Control measures	Performance standards
Production casing cementing after installation.	To isolate a permeable formation between the proposed casing shoe and the previous casing shoe.	Cement slurry and recipe pumped as per planned schedule and design (no or minimal losses), to a minimum stated cement height above top of the permeable formation. Excess cement and spacer volume and design pumped as per plan with return volume equal to the pumped volume. Plug bumped as per planned schedule and no back flow. Defined contingency plans (e.g. the permeable zone will be logged to confirm the presence of fluids. If present cut and pull casing if cementing objective has not been met.)	Plug bumped and pressure tested as per defined standard. Top of cement and / or cement job quality verified by cement bond log (CBL) / Radial log and a successful leak off test (LOT) / formation integrity test (FIT) as per defined standard.

Example 2: A higher risk drilling activity that would require additional control measures

Description	Performance outcome	Control measures	Performance standards
Production casing pressure test based on drilling kick loads as opposed to greater production load cases prior to drilling reservoir section. This activity may be performed if the production test pressure load case (usually a gas kick below the wellhead in the tubing with a leak from the tubing to production casing scenario) is higher than the float equipment rating or the cement behind the production casing requires a longer time to cure and a pressure test to the greater load scenario may create a micro annuli between the production casing and the cement. This activity generally applies to HPHT wells.	To assure by means of pressure testing that: The production casing will be tested to simulate a limited kick design load scenario to allow the well to be drilled to total depth (TD). (The full production load pressure test will be performed after the production tubing has been installed.)	Well / hole section specific well control manual including as examples: • early kick detection and connection finger printing program for drilling reservoir section and pore pressure prediction program. Competencies and training – examples: • key personnel well control certified. • perform defined kick drills • regular BOP testing • toolbox talks Hole section specific programmes - examples: • mud • directional • logging Defined contingency plans (e.g. blowout contingency plan and source control plan).	Perform casing test as per defined standard (proposed mud weight, time to perform pressure test, acceptable pressure drop, etc.).

Example 3: A commonly performed completion activity

Description	Performance outcome	Control measures	Performance standards
Upper completion installation	Provide a primary barrier for source control. Provide a flow conduit for hydrocarbon production	Upper completion design: - Tubing stress analysis / well operating envelope - Completion equipment material selection & elastomer selection - Tubular connection selection Completion equipment QA/QC Packer installation in cemented casing Completion connection make up Tubing and annulus pressure test	Upper completion design work carried out, documented and approved by competent personnel. Completion equipment QA/QC plan carried out, documented and approved by competent personnel Casing annulus has good quality cement in excess of the length required for isolation above the packer setting depth. Completion connection make up report showing all connections made up within specification Perform pressure test as per defined standard

3.5. Well lifecycle control measures

Regulations – Part 5: Content requirement

Reg. 5.09(1)(e) a description of the control measures that will be in place to ensure that risks to the integrity of the well will be reduced to as low as reasonably practicable throughout the life of the well, including periods when the well is not operational but has not been permanently abandoned

For NOPSEMA to adequately assess the control measures, a description of the risks must be provided.

Consideration of well integrity should address the full lifecycle of the well(s), from 'design phase to permanent abandonment'. Therefore the control measures considered should address all phases; design, construction, production and maintenance, and specifically suspension and abandonment. Control measures are required until the well is permanently abandoned. Some considerations are:

- lifecycle: well maintenance. Describe well maintenance philosophy including:
  - major workover planning and operations process
  - well intervention planning and operations process
  - well maintenance requirements (e.g. tabulate tree maintenance, periodic testing and annulus management plan)
  - describe minimum acceptance criteria
  - summarise the minimum well integrity monitoring, inspection and reporting requirements during well operations, well production, well maintenance and pre-abandonment
  - systems, practices and procedures to ensure performance objectives are met (e.g. specific drilling, testing, plug and abandonment and completion programs)
  - describe the well barrier standards
  - describe the communications strategy to ensure personnel are kept appropriately informed about well integrity issues
  - describe the monitoring, reviewing and auditing program relating to the performance objectives
  - describe ongoing control measures for factors influencing ageing wells (e.g. increase in BSW, H2S, CO2, H2O etc., effect on corrosion levels, condensation in the annulus, chemical injection, acid wash, corrosion of actuators and stems etc.)

3.6. Performance standards for control measures

Regulations – Part 5: Content requirement

Reg. 5.09(1)(f) a description of the performance standards for the control measures identified under paragraph (e)

In order for the titleholder to determine that the control measures identified are achieving their objectives they must be monitored and measured. Considerations include:

- describe the performance standards in relation to well integrity (e.g. tabulate the minimum acceptance criteria to ensure well integrity)
- for production wells provide the well integrity management plan including for example the methods that will be used to assess if well integrity controls are being maintained (e.g. provide the well surveillance plan (maintenance and testing programme).

3.7. Measurement criteria

Regulations – Part 5: Content requirement

Reg. 5.09(1)(g) the measurement criteria that will be used to determine whether the performance outcomes identified under paragraph (d) and the performance standards identified under paragraph (f) are being met

As mentioned in subregulation 5.09(1)(f), in order for the titleholder to assess if the control measures identified are being achieved they need to be monitored and measured. Supporting the performance standards, considerations include:

- provide the pressure testing criteria for acceptance
- the well surveillance and equipment testing plan that is to be measured against
- provide the tubular design criteria (casing and tubing minimum design acceptance criteria).

3.8. Monitoring, audit and well integrity assurance

Regulations – Part 5: Content requirement

Reg. 5.09(1)(h) a description of the monitoring, audit and well integrity assurance processes that will be implemented to ensure the performance outcomes and performance standards are being met throughout the life of the well, including periods when the well is not operational but has not been permanently abandoned

Describe the well management systems review and audit requirements (provide scope, standards and frequencies).

3.9. Well abandonment and suspension considerations

Regulations – Part 5: Content requirement

Reg. 5.09(1)(i) a description of the arrangements that will be in place for suspension and abandonment of the well, showing:

(i) how, during the process of suspending or abandoning the well, risks to the integrity of the well will be reduced to as low as reasonably practicable;

(ii) how the actions taken during that process will ensure that the integrity of the well is maintained while the well is suspended or abandoned.

There must be a WOMP *in force* for any well, including a suspended well until it has been abandoned in accordance with regulation 5.17. The WOMP must include a description of the monitoring plan for each suspended well.

A well should not remain suspended indefinitely (as stated in ISO 16530). NORSOK D-010 provides guidance on maximum durations for wells to be in a suspended state - a maximum of three years for a well status defined as 'temporarily abandoned without monitoring', with a maximum of one year between visual observations of subsea wells. Under the OPGGSA Act 2016 (Sections 166 and 587) if there are no petroleum recovery operations on a production lease for five years, the Joint Authority can terminate the licence and NOPSEMA may direct the titleholder "to plug or close off" the wells to the satisfaction of NOPSEMA.

The titleholder must provide details of the processes and procedures that will be used to ensure that the ell abandonment is carried out such that the risk is reduced to a level that is as low as reasonably practicable (ALARP). The WOMP should include the following:

- well barrier philosophy
- well barrier standards (what constitutes a well barrier, lengths of cement plugs, cement design and quality control, annulus plugs, elastomers and design standards)
- barrier verification (methods and minimum acceptance criteria).

Abandonment reporting requirements (regulation 5.17) are detailed in Guidance Note N-04600-GN1601 - WOMP lifecycle management.

3.10. Responsibilities and competencies of contractors and service providers

Regulations – Part 5: Content requirement

Reg. 5.09(1)(j) a description of the measures that will be used to ensure that contractors and service providers undertaking well activities are aware of their responsibilities in relation to the maintenance of the integrity of the well, and have appropriate competencies and training

The WOMP should describe how contractors and service providers will be provided with sufficient information to understand what actions they must undertake to support safe operations and to minimise the risk of loss of well integrity.

The WOMP also needs to describe how the titleholder will assure itself of the competency of contractors and service providers to fulfil their respective roles and responsibilities with regard to the well activity.

API Bulletin 97 provides useful guidance on this topic.

3.11. Source control and blowout contingency measures

Regulations – Part 5: Content requirement

Reg. 5.09(1)(k) a description of the measures and arrangements that will be used to regain control of the well if there is a loss of integrity

Provide a summary description of the blowout contingency plan and source control plan covering drilling, well, production and injection activities for each well, installation, field or area demonstrating that the plan to regain control after a loss of well integrity is fit for purpose, based on a realistically modelled case and will be available prior to commencing the well activity.

Consideration should be given to internationally accepted guidelines and standards such as:

- Oil & Gas UK – Guidelines on Relief Well Planning - Issue 2, March 2013
- NORSOK Standard D-010, Well integrity in drilling and well operations - Rev 4, June 2013
- International Association of Oil & Gas Producers - Capping & Containment, Global Industry Response Group recommendations - Report No. 464.

The summary of the blowout contingency plan should as a minimum address:

- modelling assumptions and scenarios
- primary kill strategy
- relief well design.

Typically, the blowout scenarios described for penetrated reservoirs should address credible pipe, casing and open hole configurations, expected reservoir parameters including productivity, zero mechanical skin factors or flow path restrictions.

The description should clearly address the number of relief wells required to kill the blowout well, pre-planned identification of relief well locations, shallow gas assessment, well paths, equipment logistics and specialist service provider arrangements. If more than one relief well is required, it shall describe how such an operation is feasible with respect to logistics, weather criteria and availability of rigs. The description should also address the feasibility of mobilisation and installation of capping equipment within a reasonable timeframe.

Plan for capping and containment of a blowing subsea well:

A description of any plan for capping of a blowing subsea well should address:

- evaluation of the feasibility of capping a blowout scenario at the given water depth
- identification of all connections and possible interfaces from wellhead to flexible joint
- identification of all connections and possible interfaces from XT to interface to workover equipment
- inclusion of an overview of equipment requirements and availability to allow installation of a capping stack, including an adapter to enable connection of the capping stack
- consideration of additional well load cases resulting from a capping operation.

3.12. Timetable

Regulations – Part 5: Content requirement

Reg. 5.09(1)(l) a timetable for carrying out and completing the well activities to which the plan applies

For new wells or operational wells this regulation is self-explanatory. For WOMPs that include suspended wells, an approximate timeframe until re-entry or permanent abandonment should be provided. See section 3.9 for further guidance.

4. References, acknowledgements and notes

Offshore Petroleum and Greenhouse Gas Storage Act 2016

Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011

N-04600-GN1601 - Well Operations Management Plan lifecycle management

AS/NZS ISO 31000:2018 - Risk Management Guidelines

ISO 16530-1:2017 Petroleum and natural gas industries — Well integrity — Part 1: Lifecycle governance

NORSOK Standard D-010 – Well Integrity in drilling and well operations

Oil & Gas UK - Guidelines on Relief Well Planning for Offshore Wells

Oil & Gas UK – Well Lifecycle Integrity Guidelines

Oil & Gas UK – Well Decommissioning Guidelines

Oil & Gas UK – Guidelines on qualification of materials for the abandonment of wells

Oil & Gas UK – Guidelines on Relief Well Planning

International Association of Oil & Gas Producers - Capping and Containment Global Industry Response Group recommendations, IOGP Report No. 464

API Bulletin 97 - Well Construction Interface Document Guidelines

Note: All regulatory references contained within this guidance note are from the OPGGS Act and the associated regulations. For titles located in designated coastal waters, please refer to the relevant State or Northern Territory legislation.

For more information regarding this guidance note, please contact NOPSEMA on:

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