

Well Operations Management Plan lifecycle management

Document No: N-04600-GN1601 A462131

Date: 20/05/2020

Core concepts

- **Planning** – A Well Operations Management Plan (WOMP) may address one or more stages in the life of a well and may relate to more than one well. Hence a titleholder should consider all the stages in the life of a well or wells intended to be encompassed by the WOMP and should plan each of these stages to ensure there is sufficient time and resources set aside for appropriate development of the WOMP. Note that only “wells of similar risk” may be covered in the same WOMP.
- **Timing of submission** – New and revised WOMPs should be submitted well in advance of the intended activity or change. The regulations provide for a 30 day assessment period for a new WOMP and a 30 day assessment period for a revised WOMP. The regulations also allow NOPSEMA to extend these time frames if it is unable to arrive at a decision. NOPSEMA requests for further written information or refusal to accept the WOMP can lead to delays.
- **Activities limited to an accepted WOMP** – It is an offence for a titleholder to undertake well activities that are not provided for in an accepted valid WOMP, termed the WOMP in force.
- **WOMP revision triggers** – The triggers for revising a WOMP include: at NOPSEMA request, on the expiry of five years and based on circumstances. Generally, new well construction (drilling and completion), well workover or intervention, production (or testing) and abandonment activities may be covered by a new WOMP at the outset or may be progressively covered by revisions to an existing WOMP. In either case, the WOMP must contemplate the full lifecycle of the well.
- **Revision triggers and management of change** – The above regulatory triggers initiate the requirement for revision to a WOMP, while other less significant changes may be undertaken under a titleholder's management of change process without submission of a revised WOMP to NOPSEMA. Titleholders are encouraged to develop a strategy and procedures for review and maintenance of their WOMPs over time, noting that an internal change process does not derogate titleholders' obligations to submit a revised WOMP to NOPSEMA under the circumstance specified in the regulations.
- **Withdrawal of acceptance of a WOMP** – NOPSEMA may withdraw acceptance of a WOMP in accordance with Division 6 of the regulations.

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Abbreviations/acronyms

OPGGS Act	<i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i>
OPGGS(RMAR)	Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
WOMP	Well operations management plan
MoC	Management of change
SCSSSV	Surface controlled subsurface safety valves
SSCSSV	Subsurface controlled subsurface safety valve
XT	Christmas tree
E-line	Electric line
BOP	Blowout preventer
BHA	Bottom-hole assembly

Key definitions

The following are some useful definitions for terms used in this guidance note. They are a suggested starting point only and are not prescriptively defined.

Significant change	significant change is likely to be one that changes the basis on which the WOMP was accepted.
Integrity	in relation to a well; means the capacity of the well to contain petroleum, a greenhouse gas substance, or any other substance (OPGGS(RMAR) 2011 regulation 5.02)
Regulator	NOPSEMA – for a petroleum exploration permit, petroleum retention lease, petroleum production licence or infrastructure licence (subregulation 5.02(a))
In force	in relation to a WOMP means that it has been accepted by NOPSEMA, the acceptance has not been withdrawn, and the operation of the plan has not ended. (regulation 5.02)

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 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 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, to identify the general issues that should be considered and to provide practical examples to illustrate the concepts and potential approaches to meet the requirements of the regulations.

This particular guidance note provides guidance on the life cycle of WOMPs under the regulations. The guidance will be of use to people who are responsible for preparation, submission and maintenance of WOMPs for a well(s).

The titleholder should consider all activities in the life of the well or wells to be encompassed and should plan each of these stages with sufficient time and resources set aside to ensure appropriate and timely WOMP development can be achieved.

Guidance notes indicate what is explicitly required by the regulations, discuss good practice and suggest possible approaches to meet the requirements of the regulations. An explicit regulatory requirement is indicated by the word **must**, while other cases are indicated by the words **should**, **may**, etc. NOPSEMA acknowledges that what is good practice and what approaches are valid and viable will vary according to the nature of the wells and their associated risks.

If further clarification is required with respect to WOMP lifecycle management, titleholders are encouraged to contact NOPSEMA.

This guidance note is not a substitute for legal advice on interpretation of the regulations or the Acts under which the regulations have been made.

1.2. Scope

The scope of this guidance note includes all well(s) and well activities as defined by Division 1 of Part 5 of the regulations.

Figure 1 below provides a graphical representation of the range of steps which form typical WOMP activities in the life of well(s).

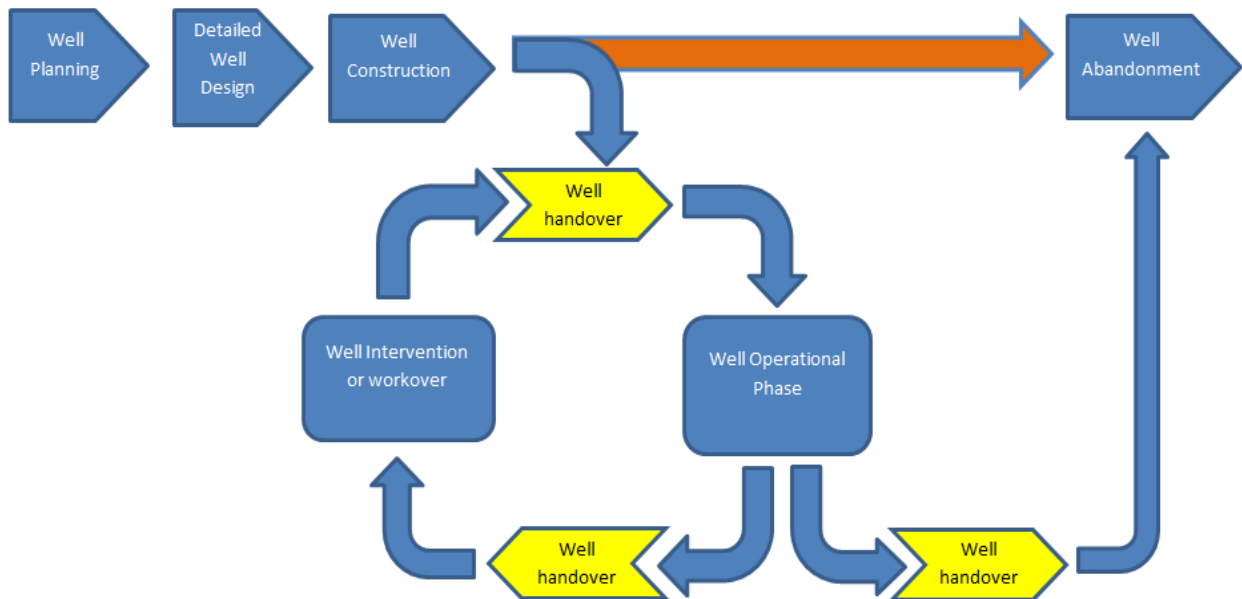


Figure 1 – WOMP activities in the life of well(s)

2. WOMP

2.1. Activities in the life of well

Division 1 of Part 5 of the regulations encompasses preliminary matters through regulations 5.01, 5.02 and 5.03 which are self-explanatory and require no guidance.

Regulation 5.03A deems that the existence of a well that is not operational in a title area constitutes the undertaking of a well activity in relation to that well. This latter topic is discussed elsewhere.

Division 2 Requirements – well operations management plan

Part 5: WOMP:

Reg 5.04 Requirement to have a well operations management plan in force

- (1) A titleholder commits an offence if:
- (a) the titleholder undertakes a well activity in a title area; and
 - (b) there is no well operations management plan in force for the well that applies to the well activity

Penalty: 80 penalty units.

- (2) An offence against subregulation (1) is an offence of strict liability

Note 1: the **strict liability** see section 6.1 of the *Criminal code*.

Note 2: NOPSEMA and the responsible Commonwealth Minister have powers to give direction to titleholders which must be complied with despite anything in these Regulations – see 574, 574A, 576B, 576C, and 580 of the Act. They also have powers to give remedial directions, which may relate to the plugging or closing off of wells – see sections 586, 586A and 592 of the Act.

Regulation 5.04 is self-explanatory and requires no guidance.

Part 5: WOMP:

Reg 5.05 Requirement to undertake activities in accordance with the well operations management plan

- (1) A titleholder commits an offence if:
- (a) the titleholder undertakes a well activity in a title area; and
 - (b) the well activity is regulated by:
 - (i) one or more requirements of the well operations management plan; or
 - (ii) one or more conditions to which the acceptance of the plan was subject; or
 - (iii) both requirements and conditions and;
 - (c) the titleholder does not undertake the activity in accordance with the requirements, conditions or both that regulate the activity.

Penalty: 80 penalty units

- (1A) A titleholder commits an offence if:
- (a) the well operations management plan in force for a well in the title area requires the titleholder to undertake an activity; and
 - (b) the titleholder does not undertake the well activity the well activity.

Penalty: 80 penalty units.

- (2) An offence against subregulation (1) or (1A) is an offence of strict liability

Note 1: the **strict liability** see section 6.1 of the *Criminal code*.

Note 2: NOPSEMA and the responsible Commonwealth Minister have powers to give direction to titleholders which must be complied with despite anything in these Regulations – see 574, 574A, 576B, 576C, and 580 of the Act. They also have powers to give remedial directions, which may relate to the plugging or closing off of wells – see sections 586, 586A and 592 of the Act.

Exception to subregulation (1) – Regulator consents to undertake activity in a specified manner

- (3) A titleholder may request, in writing, the consent of the Regulator to the titleholder undertaking a well activity in a specified manner.
- (4) The request must include sufficient information for the Regulator to assess whether or not undertaking the well activity in that manner would result in the integrity of the well becoming subject to a significant new risk or a significantly increased risk.
- (5) The Regulator may give consent only if there are reasonable grounds for believing that undertaking the well activity in that manner will not result in the integrity of the well becoming subject to a significant new risk or a significantly increased risk. The consent must be in writing.
- (6) Subregulation (1) does not apply in relation to a well activity if:
 - (a) the Regulator has consented under subregulation (5) to the titleholder undertaking the activity in a specified manner; and
 - (b) the titleholder undertakes the activity in that manner.

Note: A defendant bears an evidential burden in relation to the matter in subregulation (6): see subsection 13.3(3) of the Criminal Code.

There must be a WOMP in force for a well activity prior to commencement of the activity and the activity must be conducted in accordance with the WOMP in force (subregulations 5.05(1), (1A) and (2)).

NOPSEMA recognises that there may be, from time to time, circumstances where a titleholder wishes to undertake activities not contemplated in the WOMP in force on an urgent basis, e.g. to deal with the immediate aftermath of an emergency or other circumstances where the titleholder believes it is not practicable to revise the WOMP before undertaking the activity. In such cases, the titleholder must seek consent from NOPSEMA to undertake the activity in a manner that is different from the WOMP in force.

It is NOPSEMA's policy to issue such consent only in extraordinary circumstances. Consent is unlikely to be issued in cases where NOPSEMA believes the titleholder could have but has not adequately planned for a foreseeable activity or other proposed change, or where NOPSEMA considers that revising the WOMP prior to undertaking the activity is reasonably practicable and appropriate (subregulations 5.05(3) and (4)).

Further, NOPSEMA is not permitted to provide consent unless it is satisfied that there will not be an occurrence of a significant new risk or a significant increase in an existing risk from the proposed work and the risks to well integrity are ALARP. The titleholder must therefore demonstrate that it has reviewed the risks associated with the proposed work and it meets this criterion specified by subregulation 5.05(5).

NOPSEMA's Guidance Note WOMP Content and Level of Detail describes the matters that must be taken into consideration in developing a WOMP for a well.

2.2. WOMP Submission

Division 3 – Obtaining acceptance of a well operations management plan

Part 5: WOMP:

Reg 5.06 Application for acceptance of well operations management plan

- (1) A titleholder may apply to the Regulator for acceptance by the Regulator for a well operations management plan.
- (2) The titleholder must submit the plan to the Regulator
 - (a) At least 30 days before the proposed start of the first well activity to which the plan would apply; or
 - (b) Within the period approved by the Regulator in writing
- (3) The plan:
 - (a) Must be in writing; and
 - (b) May be applied to more than one well if the integrity of each well is subject to similar risk; and
 - (c) With the written approval of the Regulator – may be submitted in part.

In order for a WOMP to be accepted by NOPSEMA, it must first be submitted to NOPSEMA by the titleholder (regulation 5.06).

New or revised WOMPs must be submitted in advance of commencement of the intended activity (e.g. well construction (drilling and completion), production / testing, workover / well intervention or abandonment).

Sufficient time should be allowed for the assessment process and for potential further work if additional information is required by NOPSEMA. WOMPs submitted for acceptance may relate to one or more activities in the life of the well and may relate to more than one well and more than one title area, subject to the requirement that the wells included in a WOMP are of 'similar risk'.

Example

Similar risk: A group of wells may be subject to similar risks if they will encounter similar geological structures or pressures during well operations.



This form is available on the NOPSEMA website:
'N-04600-FM1600 WOMP Submission Coversheet'

This form includes fields for the mandatory information and details relating to which well, part(s) in the life of the well to which the submission relates, and regulation(s) under which the submission is made.

It is recommended that the titleholder includes a concordance table in the WOMP clearly indicating which section(s) of the WOMP address each requirement of the regulations.

2.3. Assessment and acceptance decision

Part 5: WOMP:**Reg 5.07 Decision on well operations management plan***Initial consideration*

- (1) Within 30 days after a titleholder submits a well operations management plan to the Regulator:
 - (a) if the Regulator is reasonably satisfied that the plan meets the criteria set out in regulation 5.08, the Regulator must accept the plan; or
 - (b) if the Regulator is not reasonably satisfied that the plan meets the criteria set out in regulation 5.08, the Regulator must give the titleholder notice in writing under subregulation (2); or
 - (c) if the Regulator is unable to make a decision on the plan within the 30 day period, the Regulator must give the titleholder notice in writing and set out a proposed timetable for consideration of the plan.
- (2) A notice to a titleholder under this subregulation must:
 - (a) state that the Regulator is not reasonably satisfied that the well operations management plan submitted by the titleholder meets the criteria set out in regulation 5.08; and
 - (b) identify the criteria set out in regulation 5.08 about which the Regulator is not reasonably satisfied; and
 - (c) set a date by which the titleholder may resubmit the well operations management plan.
- (3) The date referred to in paragraph (2)(c) must give the titleholder a reasonable opportunity to modify and resubmit the plan.

If NOPSEMA is not reasonably satisfied (after a maximum of two (2) requests for further written information (RFFWI), regulation 5.07A), NOPSEMA may request the titleholder to resubmit the WOMP application, providing reasons why NOPSEMA is not satisfied that the criteria in 5.08 have been met and nominating a proposed date for resubmission. The titleholder may alter this date after consultation and agreement with NOPSEMA.

If there are a large number of un-met criteria, NOPSEMA may elect to bypass the RFFWI process and proceed directly to requesting the titleholder to resubmit the WOMP.

Part 5: WOMP:**Reg 5.07 Decision on well operations management plan***Consideration after opportunity for resubmission*

- (4) Within 30 days after the titleholder has resubmitted a modified well operations management plan:
 - (a) if the Regulator is reasonably satisfied that the plan meets the criteria set out in regulation 5.08, the Regulator must accept the plan; or
 - (b) if the Regulator is still not reasonably satisfied that the plan meets the criteria set out in regulation 5.08, the Regulator must:
 - (i) give the titleholder a further notice under subregulation (2); or
 - (ii) refuse to accept the plan; or
 - (iii) act under subregulation (6); or
 - (c) if the Regulator is unable to make a decision on the plan within the 30 day period, the Regulator must give the titleholder notice in writing and set out a proposed timetable for consideration of the plan.
- (5) If the titleholder does not resubmit a modified well operations management plan by the date referred to in paragraph (2)(c), or a later date agreed to by the Regulator, the Regulator must:
 - (a) refuse to accept the plan; or
 - (b) act under subregulation (6).
- (6) For subparagraph (4)(b)(iii) and paragraph (5)(b), the Regulator may do either or both of the following:
 - (a) accept the plan in part;
 - (b) accept the plan subject to conditions.

Validity of decision

- (7) A decision by the Regulator under subregulation (1) or (4) is not invalid only because the Regulator did not comply with the 30 day period in subregulation (1) or (4).

Notice of decision

- (8) The Regulator must give the titleholder notice in writing of a decision by the Regulator to:
 - (a) accept the well operations management plan; or
 - (b) refuse to accept the plan; or
 - (c) accept the plan in part, or subject to conditions.
- (9) A notice of a decision mentioned in paragraph (8)(b) must set out the reasons for the decision.
- (10) A notice of a decision mentioned in paragraph (8)(c) must set out the terms of the decision and the reasons for the decision.

Once NOPSEMA has assessed the resubmission and NOPSEMA is still not reasonably satisfied that the WOMP contents meets the criteria set out in regulation 5.08, NOPSEMA may request a further resubmission (4)(b)(i), refuse to accept the WOMP (4)(b)(ii) or accept the WOMP in part or subject to conditions (4)(b)(iii) and (6).

Acceptance of a WOMP may be subject to conditions or limitations. However, it is NOPSEMA policy to apply conditions and limitations only in extraordinary circumstances. Similarly, NOPSEMA may accept part of a WOMP for one or more activities in the life of the well and reject the rest of the WOMP. NOPSEMA is only likely to do this where the part to be accepted is distinct and such acceptance will not introduce any ambiguity as to the scope of the WOMP in force.

Part 5: WOMP:**Reg 5.07A Further information on submitted plan**

- (1) If a titleholder submits a well operations management plan (including by resubmitting a plan in response to a notice under subregulation 5.07(2)), the Regulator may ask the titleholder to provide further written information about any matter that is required under subregulation 5.09(1) to be included in a well operations management plan.
- (2) The request must:
 - (a) be in writing; and
 - (b) set out each matter for which information is requested; and
 - (c) specify a reasonable period within which the information is to be provided.
- (3) If a titleholder receives a request, and provides information requested by the Regulator within the period specified or within a longer period agreed to by the Regulator:
 - (a) the information becomes part of the well operations management plan; and
 - (b) the Regulator must have regard to the information as if it had been included in the well operations management plan when it was submitted.

During the assessment process, NOPSEMA may seek further written information from the titleholder about any matter required by the regulations to be included in the WOMP.

Each request for further written information must be in writing. It is NOPSEMA's policy to limit requests for further written information to a maximum of two (2) requests for new WOMPs and revised WOMPs.

Information received from the titleholder within the specified period becomes part of the WOMP as if it had been included within the WOMP as originally submitted to NOPSEMA. Depending upon the nature of the further written information requested and received, NOPSEMA may request the titleholder to include this further written information in a complete updated version of the WOMP. If the requested written information is not provided to NOPSEMA within the specified period, this will generally lead to NOPSEMA making a decision on acceptance or refusal to accept the WOMP based on the information already received. NOPSEMA requests for further written information from the titleholder may lead to delays in an acceptance decision.

NOPSEMA must accept the WOMP if it is appropriate to the well(s) and it complies with the requirements of regulation 5.09 of Division 3 of Part 5 of the regulations – contents of well operations management plan.

Part 5: WOMP:

Reg 5.08 Criteria for acceptance of a well operations management plan

Reg 5.09 Contents of well operations management plan

Guidance on regulations 5.08 and 5.09 is addressed in the separate guidance note – N-04600-GN1602 – WOMP Content and Level of Detail.

2.4. When is the submission of a revised WOMP required?

Division 4 – Revision of well operations management plan.

Titleholders are required to submit a revised WOMP to NOPSEMA under circumstances arising in accordance with regulations 5.10, 5.11, and 5.13. The requirements of these regulations can be categorised respectively as: 'change of circumstances', 'request by NOPSEMA' and 'revision after five years'. In relation to 'change of circumstances', a revised WOMP must be submitted as soon as practicable after the titleholder becomes aware the integrity of the well has or may become subject to a significant new risk or significantly increased risk.

Part 5: WOMP:

Reg 5.10 Revision based on circumstances

- (1) A titleholder must submit to the Regulator a proposed revision of the well operations management plan that is in force for a well in the title area, before the start of any well activity that the plan as currently in force does not apply to.

Note: A plan may have originally been submitted in part or only accepted in part: see regulations 5.06 and 5.07.

- (2) A titleholder must (except when the Regulator has consented under subregulation 5.05(5)) submit to the Regulator a proposed revision of a well operations management plan that is in force for a well in the title area, before making a significant change to the manner in which risks to the integrity of the well are reduced to as low as reasonably practicable.

Note: The titleholder must undertake activities in accordance with the well operations management plan in force for the well, except when the Regulator has consented to the titleholder undertaking an activity in a specified manner: see regulation 5.05.

- (3) A titleholder must submit to the Regulator a proposed revision of a well operations management plan that is in force for a well in the title area:
 - (a) as soon as practicable after the integrity of the well becomes subject to a significant new risk or a significantly increased risk; or
 - (b) if NOPSEMA gives the titleholder a direction under section 574, 576B or 586 of the Act which is inconsistent with the plan; or
 - (c) if the responsible Commonwealth Minister has given the titleholder a direction under section 574A, 580, 586A or 593 of the Act which is inconsistent with the plan.

Note: If paragraph (b) and (c) applies, the proposed revision will need to be consistent with the direction to be accepted – see subregulation 5.15(2)

If the titleholder becomes aware that the WOMP in force does not adequately reflect activities conducted or proposed to be conducted in a title area covered by the WOMP, the titleholder must submit an appropriately revised WOMP to NOPSEMA for acceptance before commencing such activities.

Example

Revision based on circumstances:

- (1) The WOMP “in force” covers the well construction activities and the next activity in the life of the well(s) is the production activity, and this activity is not already catered for in the WOMP, the WOMP must be revised to include this activity.
- (2) The WOMP “in force” covers the monitoring of a suspended well and the titleholder has decided to permanently abandon the well the WOMP must be revised to include this

Part 5: WOMP:**Reg 5.11 Revision required by Regulator**

- (1) Subject to regulation 5.12, a titleholder must submit to the Regulator a proposed revision of the well operations management plan that is in force for a well in the title area if the Regulator notifies the titleholder under this regulation that the titleholder is required to do so.
- (2) The notice must be in writing and must set out the following:
 - (a) the matters to be addressed by the revision;
 - (b) the reasons for requiring the revision;
 - (c) the proposed date by which the titleholder must submit the revision;
 - (d) the effect of regulation 5.12.

NOPSEMA may request a titleholder to submit a revised WOMP. This may occur if deficiencies are identified in the WOMP in force as a result of an inspection or an incident investigation. It may also occur in the event that NOPSEMA believes the WOMP in force does not adequately reflect activities conducted or proposed to be conducted in a title area covered by the WOMP.

A written request by NOPSEMA to revise a WOMP must specify the matters to be addressed by the revision, the proposed date of effect of the revision and the grounds for the request.

It should also be noted that a request for a revised WOMP may be accompanied by other enforcement measures.

Part 5: WOMP:**Reg 5.12 Revision required by Regulator – objection to requirement**

- (1) If the Regulator gives a titleholder a notice under regulation 5.11, the titleholder may give an objection, in writing, to the Regulator:
 - (a) stating one or more of the following:
 - (i) the revision should not occur
 - (ii) that the revision should not address the matters set out in the notice or should address different matters
 - (iii) that the date by which the titleholder must submit a revision should be later than the proposed date; and
 - (b) giving reasons for the objection.
- (2) The titleholder must make the objection within 21 days after receiving the notice, or a longer period allowed by the Regulator
- (3) The Regulator must, within 30 days after receiving the objection, decide whether to accept or reject the objection
- (4) The Regulator must notify the titleholder, in writing, of the following matters as soon as practicable after making a decision:
 - (a) the terms of the decision, including:
 - (i) whether the original notice given under regulation 5.11 is varied or withdrawn; and
 - (ii) if the original notice is varied – the new requirements;
 - (b) if the decision is to reject the objection – the reason for the decision.

If NOPSEMA requests a titleholder to submit a revised WOMP, the titleholder may make an objection to the requirement in accordance with Regulation 5.12.

Part 5: WOMP:**Reg 5.13 Revision at end of each 5 year period**

- (1) A titleholder must submit to the Regulator a proposed revision of the well operations management plan that is in force for a well in the title area at least 14 days before the end of the period of 5 years that begins on the latest of the following days:
 - (a) the day the Regulator first accepts the well operations management plan;
 - (b) a day the Regulator accepts a proposed revision of the well operations management plan submitted under this regulation;
 - (c) for a plan that is taken to be in force under subregulation 5.31(1)—the first day the Regulator accepts a proposed revision of the plan after the commencement of this regulation;
 - (d) a day notified by the Regulator under subregulation (2).
- (2) For paragraph (1)(d), if the Regulator accepts a proposed revision of a well operations management plan that was submitted under regulation 5.10 or 5.11, the Regulator may notify the titleholder that the period of 5 years mentioned in subregulation (1) starts on the day specified in the notice.

The titleholder must submit a revised WOMP to NOPSEMA every five years after the original WOMP acceptance (regulation 5.13). A revised WOMP submitted and accepted because of a change of circumstances or operations, or because NOPSEMA has requested a revision, does not trigger its own new five-yearly WOMP revision cycle unless explicitly agreed by NOPSEMA, in accordance with subregulation 5.13(2).

It is recommended that titleholders incorporate the requirement to conduct a five-yearly review and revision of their WOMPs into their internal processes. These internal processes should ensure that the review and revision commences in a timely manner.

A revised WOMP submitted after five years should focus on the ongoing validity of the technical and other control measures identified by previous risk assessments. As part of this process, the titleholder should revisit assumptions made in the previous WOMP submission(s). The revision should also include any relevant responses submitted by the titleholder in relation to previous NOPSEMA written requests for further information that have not already been included in the WOMP.

The WOMP revision must be received by NOPSEMA at least 14 days prior to the fifth anniversary of the previous WOMP acceptance.

Example

Revision of a WOMP after five (5) years:

1. As a production well ages the reservoir fluid constituent parts may change e.g. increase water cut, scale, asphaltenes. The five (5) year revision must address such gradual changes which may have affected the risk profile, performance standards and control measures.
2. A well or wells may have been permanently abandoned during the five year period in force and the five (5) year revision must be updated to remove these wells from the WOMP.

A WOMP may be submitted and accepted for a campaign of well activities. However, the risk profile may change as the campaign progresses in which case a revision should be submitted if there is a significant new risk or a significant increase in risk to the integrity of the well(s).

Examples

A revision due to significant new risk or a significant increase in risk:

1. A production well may be deepened or side-tracked into a new formation.
2. The casing design may change to reflect changes in actual formation pressures encountered.
3. Artificial lift / injection wells not previously contemplated may be introduced.
4. Changes to completion design based on new reservoir information.
5. Water injection may have introduced increased formation pressure "hot spots" with associated new or increased risk.

The WOMP should be sufficiently detailed and comprehensive to cover foreseeable circumstances and contingencies. Requirements for deviations may sometimes be of a minor nature that may be adequately addressed through the titleholder's management of change (MoC) system.

A WOMP should be continuously reviewed and improved. NOPSEMA recognises that titleholders may amend WOMPs between formal WOMP revisions as a result of continuous improvement, without the need for formal submission and acceptance. However, it should be noted that the WOMP in force is the WOMP accepted by NOPSEMA. Therefore, titleholders should ensure that any proposed amendment to the WOMP which meets a criterion for change of circumstances or operations specified in regulation 5.10 is submitted to NOPSEMA as a formal revision to the WOMP.

As the titleholder must not conduct activities in a manner which is contrary to the WOMP, a formal revision must be submitted and accepted prior to conducting an activity that is not covered by the WOMP in force.

Example

Change that may be dealt with by a titleholder's general MoC process

- Setting of a casing string deeper than planned due to a difference in geological formation depth from the prognosis.

Note the importance of ensuring that the new casing setting depth does not infringe the casing design safety factors or kick tolerance stipulated in the WOMP thereby triggering a revision to the WOMP under Regulation 5.10.

The WOMP should clearly describe the titleholder's MoC process and include consideration of the WOMP revision triggers set out in regulation 5.10, noting that utilisation of the titleholder's MoC process does not abrogate a regulatory requirement to revise the WOMP.

Part 5: WOMP:**Reg 5.14 Form of proposed revision**

A proposed revision must be in the form of a well operations management plan or, if the titleholder and the Regulator agree, a revised part of the well operations management plan.

The regulations provide for a 30 day assessment period for revised WOMPs and allow NOPSEMA to extend this time frame if it is unable to arrive at a decision (regulation 5.07). In line with WOMP submissions, the revised WOMP submission must include the details required by regulations 5.08 and 5.09.

A proposed revision must be in the form of a complete revised WOMP or, if the titleholder and NOPSEMA agree, a revised part of the WOMP as required by regulation 5.14.

2.5. Acceptance of revised well operations management plan

Part 5: WOMP:

Reg 5.15 Acceptance of revised well operations management plan

- (1) Regulations 5.07, 5.07A and 5.08 apply to the proposed revision as if:
 - (a) a reference in those regulations to the submission, acceptance or non-acceptance of the well operations management plan were a reference to the submission, acceptance or non-acceptance of the proposed revision; and
 - (b) any other reference in those regulations to the well operations management plan were a reference to the plan as revised by the proposed revision.

Note: Those regulations deal with the consideration and acceptance of a well operations management plan.

- (2) If the proposed revision is required because NOPSEMA or the responsible Commonwealth Minister gave the titleholder a direction which is inconsistent with the well operations management plan that is in force, regulation 5.08 applies as if the criterion for the acceptance of the proposed revision is that it is consistent with the direction.

Regulation 5.15 applies the requirements of regulations 5.07, 5.07A and 5.08 (which deal with the process and requirements for WOMP assessment and acceptance) to proposed WOMP revisions.

Part 5: WOMP:

Reg 5.16 Effect of non-acceptance of proposed revision

If a proposed revision of a well operations management plan is not accepted, the provisions of the plan in force before the proposed revision was submitted remain in force, subject to the Act and this Part, as if the revision had not been proposed.

Regulation 5.16 is self-explanatory and requires no guidance.

3. End of WOMP

Division 5 – End of WOMP

Part 5: WOMP:**Reg 5.17 Plan ends when well permanently abandoned**

The operation of a well operations management plan ends when:

- (a) the titleholder has permanently abandoned the well or wells to which the plan applies; and
- (b) the titleholder has given the Regulator a written report of the process that was undertaken in abandoning the well or wells, and the outcome of that process; and
- (c) the Regulator notifies the titleholder in writing that the Regulator is reasonably satisfied that the process of abandoning the well or wells has been undertaken in accordance with the well operations management plan.

The operation of a WOMP ends when:

- The titleholder has provided a written report to NOPSEMA of the process by which the permanent abandonment has been carried out for each well and provided details of the outcome of the abandonment process for each well; and
- NOPSEMA has notified the titleholder that it is reasonably satisfied that the process of abandoning the well(s) has been undertaken in accordance with the WOMP; and
- The titleholder has permanently abandoned all of the wells encompassed by the WOMP.

The written report(s) should generally include a summary description of the abandonment operations, the objectives including the nature of formations to be isolated, verified outcomes achieved and any deviations from the plan supported by a summary of relevant MoC and risk reviews, including relevant third party reports.

The report should detail:

- All the formations with flow potential that need to be isolated
- Actual depths of formation tops, hydrocarbon zones, permeable zones and the impermeable formation(s) that in combination with the installed barriers isolates formations with flow potential
- Actual depths of casing shoes, liner top/shoe and completion components remaining in the well
- Actual or calculated top and bottom depths of the installed barriers (e.g. cement plugs) inside the casing and in the well annuli. Methodology for determining annulus barrier depths for example cement displacement calculations or cement bond logs
- How the barrier(s) was installed and how installation of a quality barrier was ensured
- Details of the well annuli pressure behaviour to demonstrate whether annulus cement is sealing or not
- Verification methods used to assure the integrity of the installed barriers (e.g. internal cement plugs) and for those barriers previously in place (e.g. production casing cement verification). This should include criteria such as barrier test pressure, pressure test mud weight, barrier tag depth and barrier tag weight, and

- Data to demonstrate barrier fracture integrity such as pore pressure gradient, fracture pressure gradient and leak off test data. The pore pressure should account for pore pressure changes subsequent to well abandonment.

The abandonment report should include a final abandonment schematic and a diagram detailing the full well barrier envelope. The written report for permanent abandonment of a well is assessed against the WOMP description of the arrangements that will be in place for abandonment of the well. Regulation 5.09 outlines the well abandonment content in the WOMP:

Part 5: WOMP:

Reg 5.09 Content of well operations management plan

- (1) The matters that must be included in a well operations management plan are the following:
 - (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; and
 - (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.

For regulation 5.09(1)(i) to be fulfilled, the WOMP needs to include sufficient detail to demonstrate that well integrity will be maintained during and after the process of suspending or abandoning the well.



This form is available on the NOPSEMA website for well abandonment submissions:
'N-04600-FM1634 Well Abandonment Report Submission Coversheet'

This form includes fields for the mandatory information relating to the well(s) and regulation(s) under which the submission is made.

4. Withdrawal of acceptance

Division 6 – Withdrawal of acceptance of well operations management plan

Part 5: WOMP:

Reg 5.18 Reasons for withdrawal of acceptance

The Regulator may withdraw its acceptance of a titleholder's well operations management plan if:

- (a) the titleholder has not complied with the Act, this Part or a direction given under section 574, 574A, 576B, 576C, 580, 586, 586A or 592" of the Act; or
- (b) the titleholder has not complied with the well operations management plan; or
- (c) the Regulator is satisfied for any other reason that its acceptance of the well operations management plan should be withdrawn.

NOPSEMA may withdraw acceptance of a WOMP if a titleholder has not complied with Division 6 of Part 5 of the regulations. Before withdrawing the acceptance of a WOMP for a well, NOPSEMA must give the titleholder at least 30 days' notice in writing of its intention to withdraw the acceptance. NOPSEMA must also give the titleholder the opportunity to make a written submission in relation to the matters NOPSEMA should consider when deciding whether to withdraw acceptance. NOPSEMA must then either withdraw acceptance of the WOMP or decide not to do so, all in accordance with regulations 5.19 and 5.20.

On withdrawal of acceptance of a WOMP, the titleholder must make the well(s) safe as soon as reasonably practicable and then cease the activities previously encompassed by the WOMP that would no longer be in force. If acceptance of a WOMP is withdrawn, the titleholder may submit a new WOMP for acceptance in accordance with the regulations. Note that any such submission is not a submission of a revised WOMP, as a revised WOMP may only be submitted where there is still a WOMP in force.

Part 5: WOMP:**Reg 5.19 Notice of proposal to withdraw acceptance**

- (1) If the Regulator believes it may be necessary to withdraw its acceptance of a well operations management plan, the Regulator must, at least 30 days before the Regulator would withdraw its acceptance:
 - (a) notify the titleholder in writing that the Regulator is considering the withdrawal of the acceptance; and
 - (b) include in the notification:
 - (i) an explanation of the reasons why the Regulator is considering withdrawing the acceptance; and
 - (ii) a date by which the titleholder may give the Regulator any information that the Regulator may take into account before deciding whether to withdraw the acceptance; and
 - (iii) any other information that the Regulator considers appropriate.
- (2) The Regulator may give a copy of the notice to a person other than the titleholder if the Regulator considers it appropriate.

Regulation 5.19 is self-explanatory and requires no guidance.

Part 5: WOMP:**Reg 5.20 Decision to withdraw acceptance**

- (1) If the Regulator notifies a titleholder under subregulation 5.19(1), the Regulator must, as soon as practicable after the date mentioned in subparagraph 5.19(1)(b)(ii) has passed:
 - (a) withdraw its acceptance of the well operations management plan; or
 - (b) decide not to withdraw its acceptance.
- (2) The Regulator must not withdraw its acceptance unless the Regulator:
 - (a) has taken any information given under subparagraph 5.19(1)(b)(ii) into account; and
 - (b) is satisfied that a reason mentioned in regulation 5.18 exists.
- (3) The Regulator must notify the titleholder, in writing, of the following matters as soon as practicable after making a decision:
 - (a) the terms of the decision;
 - (b) if the decision is to withdraw its acceptance of the well operations management plan—the reasons for the decision.

Regulation 5.20 is self-explanatory and requires no guidance.

Part 5: WOMP:**Reg 5.20A Withdrawal decision has no effect in relation to well that is not operational**

A decision by the Regulator to withdraw its acceptance of a well operations management plan has no effect in relation to a well that is not operational at the time of the decision, to the extent that the plan deals with the period that the well is not operational.

Regulation 5.20A is self-explanatory and requires no guidance.

Part 5: WOMP:**Reg 5.21 Relationship between withdrawal and other provisions**

- (1) The Regulator may withdraw its acceptance of a well operations management plan for the titleholder, even if the titleholder has been convicted of an offence, because of a failure to comply with a provision of the Act, these Regulations or other regulations made under the Act.
- (2) If the Regulator withdraws its acceptance of a well operations management plan, the withdrawal does not prevent the titleholder from being convicted of an offence because of a failure to comply with a provision of the Act, these Regulations or other regulations made under the Act.

Regulation 5.21 is self-explanatory and requires no guidance.

5. Advance notice information about specific well activities

Division 7 – Well activities for which advance notice is required

Part 5: WOMP:

5.22 Well activities for which advance notice is required

Activities requiring 21 days notice

- (1) A titleholder must notify the Regulator about any of the following well activities in the title area before starting the well activity:
 - (a) a well activity that involves drilling formation;
 - (b) a well activity that involves running tubular goods into a well or recovering tubular goods from a well;
 - (c) a well activity that involves removing a Christmas tree, tubing spool, casing spool or casing head from a well;
 - (d) a well activity that involves the installation of a Christmas tree saver for use with downhole operations or well testing.
- (2) Notice of an activity mentioned in subregulation (1) must be given to the Regulator:
 - (a) at least 21 days before the start of the well activity; or
 - (b) if the Regulator agrees to a shorter period—at least the agreed number of days before the start of the well activity.

Regulation 5.22 requires the titleholder to notify NOPSEMA before the commencement of specific well activities. Such notifications do not require NOPSEMA's approval in order for the titleholder to commence a well activity. Activities to be notified fall into one of two categories: those which must be notified to NOPSEMA 21 days in advance of starting the activity and those which are required to be notified at any time prior to the start of the activity. A separate notice of activity is required for each well and each occasion of well activity. The onus remains on the titleholder to ensure that the proposed activity is in accordance with the WOMP in force. A single notice of well activity may encompass multiple continuous activities for a single well, e.g. drill, test and abandon. NOPSEMA may request further information in writing under regulation 5.23 if the titleholder has not provided complete or sufficiently detailed information about the activity to NOPSEMA. The titleholder will not ordinarily be required to delay or cease operations while a response to NOPSEMA's request is being prepared, submitted and subsequently considered.

If the notification details an activity contemplated in the WOMP in force but the activity is subject to a significant new or significantly increased risk, the titleholder must submit a revision to the WOMP. If the information in the well activity notification is no longer accurate, the titleholder must provide NOPSEMA with an updated notification as soon as practicable.

NOPSEMA will only agree to a shorter notice period for a notification (Regulation 5.22 (2) (b)) in extraordinary circumstances and when the titleholder has submitted the request in writing.

Example

Activities requiring 21 days' notice:

- drilling and completion operations
- workovers utilising a rig or workover unit
- removal of Christmas tree, wellheads and associated barriers
- well testing
- plug and abandonment operations.

Part 5: WOMP:**Reg 5.22 Well activities for which advance notice is required**

Activities requiring notice at any time before start of activity

- (3) A titleholder must notify the Regulator about any of the following well activities in the title area before starting the well activity
- (a) a well activity, not mentioned in subregulation (1), that involves perforation or tubing punching;
 - (b) a well activity, not mentioned in subregulation (1), that involves installation, removal or locking open of a downhole safety valve, storm choke valve, gas-lift valve or injection valve;
 - (c) a well activity, not mentioned in subregulation (1), that involves the installation of a Christmas tree saver for use during maintenance work on Christmas tree components.

Example

Activities requiring notice at any time before starting of activity:

- perforating and tubing punch operations and associated work through XT without a rig or workover unit
- installation, removal or lock open of SCSSSV, SSCSSV, storm choke, gas-lift or injection valves, through XT without a rig or workover unit
- installation of a XT saver for use during maintenance work on XT components.

Note that activities that are not encompassed by subregulation 5.22(1) or 5.22(3) are not required to be notified to NOPSEMA.

Example:

Standalone activities not requiring notice before starting of activity:

- slickline investigation work e.g. LIB (lead impression block) run, gauge run, etc.
- slickline operations e.g. bailer runs, wireline fishing operations, running wireline isolation plugs in tubing or tubing nipples
- through tubing E-line logging operations e.g. investigative logs: caliper logs, spinner production logging tool, etc.
- through tubing stimulation e.g. acid wash
- pressure testing of the well barrier elements e.g. tubing, annuli, packers, wellhead and XT components.

Part 5: WOMP:

Reg 5.22 Well activities for which advance notice is required

Form of notice

- (4) Notice of a well activity must be in writing and must include the following information relating to the well activity:
- (a) a reference that identifies the well operations management plan for the well;
 - (b) a description of the well, including the proposed or existing well name and number, the location of the well and the water depth;
 - (c) the name of the facility from which the well activity will be carried out;
 - (d) the name of the operator of the facility;
 - (e) a description of the well activity, including the objective, key elements, milestones and programmed depths;
 - (f) a list of any documents that have been prepared for the management, control or operation of the particular well activity;
 - (g) the timetable for carrying out and completing the activity.

Subregulation 5.22(4) (a) to (d) are self-explanatory and require no guidance.

Subregulation 5.22(4)(e) requires a description of the well activity, including the objective, key elements, milestones and programmed depths. Examples of how this requirement may be met are listed below. Note that the titleholder may also supply additional information that it deems relevant.

Example information to be provided for a drilling activity notification:

1. Objective of the activity: target reservoirs / horizons, their nature, predicted pore pressure, temperature, permeability and particulars of the geological strata and formations and of fluids within them, and any risks with the potential to cause a failure of well integrity that may be present.
2. Particulars, with suitable diagrams, of the directional path of the well-bore, its terminal depth and location; and its position relative to nearby wells.
3. The procedures for effectively monitoring the direction of the well-bore and for minimising the likelihood and effects of intersecting nearby wells.

4. A description of the design of the well (including casing cement placement), including the limits on its safe operation and use.
5. Particulars of the fluids to be used to control the pressure of the well.

A 'well montage' is commonplace in the industry and this type of presentation may satisfy the information required in points 1 – 5.

In the case of a drilling activity starting from an existing well, some additional information would be required:

1. Pre and post operations diagram of the well status.
2. The well integrity status of the well: e.g. annuli pressures, tubing or casing leaks, corrosion / erosion concerns, casing and tubing wear, casing cement heights, details of previously abandoned legs, etc.
3. The current operational state of the well e.g. suspended, production, artificial lift and the intended operational state.

A 'well montage' may also satisfy these requirements.

In the case of a workover or other intervention activity, it is suggested to include:

1. The objective of the activity.
2. Pre and post diagram of the well status.
3. A summary of the intervention activities to be performed.
4. Summary of relevant previous operations in relation to the well and its well integrity status e.g. annuli pressures, tubing or casing leaks, corrosion / erosion concerns.
5. The purpose for which the well has been used e.g. production, injection, artificial lift.

Subregulation 5.22 (4)(f) requires a list of any documents that have been prepared for the management, control or operation of the particular well activity.

Example

Documents that have been prepared for management, control or operation of a particular well activity include but not limited to:

- geological prognosis and / or geological program
- drilling, testing, abandonment, workover or well intervention programs
- relief well drilling contingency plan, cap and contain plan or any other plan to regain control of the well.

NOPSEMA does not require these documents to be submitted as part of the notice of the well activity. However, these documents may be requested as part of a NOPSEMA inspection.

Part 5: WOMP:**Reg 5.23 Regulator may request more information**

- (1) If a titleholder gives the Regulator a notice about a well activity under regulation 5.22, the Regulator may ask the titleholder to provide further written information about the well activity.
- (2) The request must be in writing and describe the information that is requested.

Regulation 5.23 allows for NOPSEMA to request further information in writing. Such a request does not prohibit commencement of the planned activity, but may lead to the initiation of a NOPSEMA inspection.

Part 5: WOMP:**Reg 5.24 Notice of change in activity or circumstances**

- (1) If the information in a notice about a well activity given to the Regulator under regulation 5.22 is no longer accurate, the titleholder must provide the Regulator with updated information as soon as practicable.
- (2) Subregulation (1) does not apply if the reason why the information is no longer accurate is because the integrity of the well is subject to a significant new risk or a significantly increased risk.

Note: A significant new risk or a significantly increased risk requires a revision of the well operations management plan for the well—see subregulation 5.10(3).

Regulation 5.24 provides that the titleholder must inform NOPSEMA if there is a change in the well activity. If the change reflects a significant new or significantly increased risk to the integrity of the well, the titleholder must submit a revision to the WOMP under subregulation 5.10(2).

Example

Change from the notice about a well activity:

- Information from a recently drilled offset well may have changed the pore pressure prediction significantly for the well subject to the notification. If this change has affected the casing / completion design significantly the WOMP may need to be revised.
- If information in the “Notice of a well activity” Reg 5.22(a) – (e) has changed e.g. well name, drilling rig, etc. the titleholder must inform NOPSEMA as soon as practicable.

Part 5: WOMP:**Reg 5.25 Notice that notified well activity has been completed**

- (1) If a titleholder completes an activity for which notice was required under regulation 5.22, the titleholder must notify the Regulator that the activity has been completed.
- (2) The notice must be in writing and must be given to the Regulator no later than 10 days after the activity is completed.

Regulation 5.25 is self-explanatory and requires no guidance.



This form is available on the NOPSEMA website:
'N-04600-FM1618 Notification of Activity Submission Coversheet'

This form includes fields for the mandatory information and details relating to which WOMP, title and well, part(s) in the life of the well to which the notification relates, and regulation(s) under which the notification is made.

6. Critical factors for success

- Any WOMP or revised WOMP is submitted at least 30 days prior to the proposed commencement of well activities.
- The WOMP fully complies with the requirements of the regulations, especially regulations 5.07, 5.08 and 5.09 prior to submission.

Note: inclusion of a concordance table indicating which sections of the WOMP address each of these WOMP contents requirements is helpful to show that all the relevant regulations have been addressed.

- An activity requiring 21 days advance notice (subregulation 5.22 (1)) is submitted in a timely manner with the information required in subregulation 5.22 (4).
- An activity requiring notice at any time before the start of the activity, subregulation 5.22 (3), with the information required in subregulation 5.22 (4).

7. Contact details

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

Telephone: +61 (0)8 6188 8700; or

E-mail: wompguidance@nopsema.gov.au