



VALIDATION

GUIDELINE

1 Purpose

To provide guidance to both Industry and NOPSA assessors on the Validation process as required by the Offshore Petroleum (Safety) Regulations 2009 (OPS).

2 Scope

This Guideline is applicable to:

- all proposed facilities, including facilities that are pipelines located in Commonwealth waters, and
- to existing facilities, including facilities that are pipelines located in Commonwealth waters, to which a significant change is proposed.

Note that validation of facilities that are pipelines located in state or territory designated coastal waters is a matter for the relevant designated authority, until such a time as the state and territory Petroleum Submerged Lands Acts are revised to mirror the Commonwealth Offshore Petroleum Safety Regulations.

In accordance with OPS Regulation 2.40(1), Validation may be requested:

- for a proposed facility; or
- for a proposed significant change to an existing facility.

It should be recognised that Validation is linked to the Safety Case or revised Safety Case decision making process and that Validation is focussed on hardware, not systems, processes and procedures:

- For a proposed facility, i.e. a facility new to the regime, a Safety Case is required to be submitted to NOPSA, and prior to that submission, it is NOPSA policy to request a Validation of the proposed facility. Acceptance of the Safety Case is then contingent on a satisfactory Validation.
- For an existing facility, if an operator proposes to significantly change the facility (modify or decommission the facility), and where the Safety Case in force does not address the proposal, a Safety Case revision is required. Associated with that revision, it is NOPSA policy to request a Validation of the significant change. Acceptance of that Safety Case revision is then contingent on a satisfactory Validation.

3 Policy

Where the Regulations state that NOPSA may request a Validation, it is NOPSA policy that Validation will be requested.

4 Guidance

4.1 Introduction

The Validation is required to be a statement in writing by an independent Validator regarding the agreed matters (design, construction, installation) to the extent covered by the Scope of Validation agreed by NOPSA and the Operator.

Note that the Validation relates to the facility (i.e. hardware, including process control hardware or its software equivalent) and not the activities undertaken at the facility or the systems (procedures) that manage those activities.

The Validation must establish, to the level of assurance reasonably required by NOPSA, that for a proposed facility, the facility incorporates measures that protect the health and safety of people at the facility, and that those measures are consistent with the FSA for the facility, and for a significant change to an existing facility, that after any proposed change or changes the facility incorporates measures that will protect the health and safety of people at the facility.

4.2 Purpose

To assist Operators to agree scope of validation and to submit appropriate validation that will protect health and safety of persons, and where appropriate be consistent with the formal safety assessment for the facility.

4.3 Summary of Legislative Requirements

All references are to Commonwealth *Offshore Petroleum (Safety) Regulations 2009*— unless otherwise stated.

Equivalent provisions exist in State and Territory legislation administered by NOPSA.

OPS reg	Requirements
2.24(4)	Safety Case to be submitted to Safety Authority The Operator must not submit the Safety Case before the Operator and the Safety Authority have agreed on the Scope of the Validation for the facility.
	<i>It is the Operator who must agree the scope with NOPSA, and this must be done prior to submission of the Safety Case.</i>
2.26(d)	Acceptance or rejection of a Safety Case The Safety Authority must accept a Safety Case if: in a case in which the Safety Authority has requested a Validation of the facility: (i) the person, or each person, undertaking the Validation meets the criteria specified in sub regulation 2.40(5); and (ii) the Validation complies with regulation 2.40.
	<i>One of the criteria for acceptance of a Safety Case is that the Validator and the Validation submission meet the requirements of the regulations.</i>
2.30(3)	Revision of a Safety Case because of a change of circumstances or operations If a circumstance mentioned in sub regulation (1) is satisfied because the Operator proposes to modify or decommission the facility the operator must not submit the revised Safety Case before the Operator and the Safety Authority have agreed on the Scope of the Validation of the proposal.
	<i>If a Safety Case revision is required due to a proposal to modify or decommission a facility, then agreement on the Scope of Validation must be reached prior to submission of the Safety Case revision.</i>

OPS reg	Requirements
2.34(1)(d)	<p>Acceptance or rejection of a revised Safety Case</p> <p>The Safety Authority must accept a revised Safety Case if:</p> <ul style="list-style-type: none"> in a case on which the Safety Authority has required a Validation relating to a proposed modification: <ul style="list-style-type: none"> (i) the person, or each person, undertaking the Validation meets the criteria specified in sub regulation 2.40 (5); and (ii) the Validation complies with regulation 2.40.
	<p><i>One of the criteria for acceptance of a revised Safety Case is that the Validator and the Validation submission meet the requirements of the regulations.</i></p>
2.40(1)	<p>Validation of design, construction and installation, significant modification or decommissioning of a facility</p> <p>The Safety Authority may, by notice in writing, require the Operator of a proposed facility, or an existing facility, to provide a Validation:</p> <ul style="list-style-type: none"> (a) in respect of the proposed facility; or (b) in respect of a proposed significant change to an existing facility.
	<p><i>NOPSA may request a Validation.</i></p>
2.40(2)	<p>Validation of design, construction and installation, significant modification or decommissioning of a facility</p> <p>A Validation of a proposed facility is a statement in writing by an independent Validator in respect of the design, construction and installation (including instrumentation, process layout and process control systems) of the facility, to the extent that these matters are covered by the Scope of the Validation agreed between the Safety Authority and the Operator.</p>
	<p><i>Validation is a statement in writing by an independent Validator. The Validation must be consistent with the agreed scope.</i></p>
2.40(3)	<p>Validation of design, construction and installation, significant modification or decommissioning of a facility</p> <p>A Validation of a proposed significant change to an existing facility is a statement in writing by an independent Validator in respect of the proposed change, to the extent required by the Scope of the Validation agreed between the Safety Authority and the Operator.</p>
2.40(4)	<p>Validation of design, construction and installation, significant modification or decommissioning of a facility</p> <p>The Validation must establish, to the level of assurance reasonably required by the Safety Authority:</p> <ul style="list-style-type: none"> (a) in the case of a proposed facility — that the design, construction and installation (including instrumentation, process layout and process control systems) of the facility incorporate measures that: <ul style="list-style-type: none"> (i) will protect the health and safety of persons at the facility; and (ii) are consistent with the formal safety assessment for the facility; and (b) in the case of an existing facility — that, after any proposed change or changes, the facility incorporate measures that will protect the health and safety of persons at the proposed facility.

OPS reg	Requirements
	<i>The Validation must provide assurance that the facility or the significant change, provides for the health and safety of people.</i>
2.40(5)	<p>Validation of design, construction and installation, significant modification or decommissioning of a facility</p> <p>An Operator who has provided material for a Validation must satisfy the Safety Authority that each person who undertook the Validation had the necessary competence, ability and access to data, in respect of each matter being validated, to arrive at an independent opinion on the matter.</p> <p><i>The Operator must satisfy NOPSA as to the Validators' independence, competence, ability and access to data.</i></p>

4.4 The Validation Process

Validation is primarily a review process carried out by an independent competent party (the Validator). Verification matters are different, and can and should be covered in the Safety Case – e.g. within the Safety Case for the operational stage in the life of the facility.

Validation is essentially a three step process as discussed below:

4.4.1 Requesting Validation

Operators may choose to undertake third party Validation of their development or modification, however under the Regulations unless NOPSA formally requests a Validation, they do not need to submit any Validation material to NOPSA as part of the Safety Case submission. Operators should note however, that is NOPSA's policy to request a validation in respect of all proposed facilities and all significant changes to existing facilities resulting from a proposal to modify or decommission that facility.

It is clear that for a proposed facility there must first be an accepted Operator before NOPSA is able to request a Validation of that proposed facility. Operator nomination and registration is therefore the first step to be undertaken by the proponent.

4.4.2 Agreement of Scope of Validation

Once a Validation has been formally requested, NOPSA and the Operator are required to agree the Scope of Validation, prior to submission of the Safety Case or Safety Case revision. The Scope of Validation needs to be commensurate with the activities described within the Safety Case for which acceptance is being sought.

While there is no formal provision for NOPSA to deal with the Validator on agreement of scope, NOPSA do recognise the benefit of early discussion between Operators and their preferred Validators.

See section 4.6 below for further discussion on scope of validation.

4.4.3 Submission of the Validation

The Validation must be complete and submitted to NOPSA along with information with respect to the Validator, in order to permit a decision to be reached on the Safety Case.

An Operator of a facility may only undertake activities relative to that facility if there is a Safety Case in force for that facility that considers those activities. Therefore, for activities relative to the design, construction, and installation of a proposed facility to be undertaken, it follows that the Safety Case for the construction and installation stage must be in force. In order for the Safety Case to be accepted, there has to have been a Validation compliant with the Regulations.

4.5 Timing

4.5.1 The timing of validation

For a proposed facility, i.e. a facility new to the regulatory regime, the following steps are offered as a guide to how Validation fits into the requirements of other regulations:

- Operator nomination and registration
- NOPSA requests Validation
- NOPSA / Operator reach agreement on:
 - The Scope of Validation, i.e. what Safety Critical Elements of the facility are required to be validated and against which codes and standards (including Validator confirmation of the appropriateness of the codes and standards).
 - The timescale for when the Validation of these elements is required in order to progress the Safety Case decision making process.
 - The nature and credit assigned, regarding Validation, of any relevant marine certification.
 - The form of the Validation deliverable (e.g. statement, report or certificate).
 - It is also prudent at this stage to agree the identity of the Validator so as to address the requirements of OPS regulation 2.40(5) with regard to competence and independence.
- The Scope of Validation is agreed by NOPSA in writing.
- Operator submits facility Safety Case
- Safety Case Assessment / Validation underway
- Validation delivered
- Safety Case decision making

4.5.2 Timing of Validation with respect to Safety Case Acceptance

Requirement for Validation clearly impacts on the timing of the submission of the Validation and Safety Case documentation by the Operator.

For example, dependent upon the nature of the facility, it may be necessary for the design and construction Validation to be complete and submitted before the installation Safety Case is able to be accepted, and similarly for the installation Validation before the operations Safety Case is accepted.

For the purposes of the regulations the Validation submission may need to be provided in stages in order to permit Safety Case acceptance. This should be clearly understood and agreed at the Scope of Validation agreement stage.

In some circumstances it may not be possible for an Operator to submit documentation necessary for NOPSA to be satisfied about the Validation in a timely fashion. This may potentially lead to delays in acceptance of the Safety Case.

In order to avoid unnecessary delays, NOPSA and the Operator must be clear on what Safety Critical Elements of the facility need to be validated and when. This should be clearly reflected in the scope agreed.

To demonstrate the difference between an Operator's requirements for verification and NOPSA's requirement for validation the following example illustrates a case where an Operator's verification would not be required for NOPSA's validation. The Operator may need to perform functional tests of the process control or emergency shut down or blow down systems during the operational stage (i.e. following introduction of hydrocarbon) in the life of the facility, in order for their chosen Validator to sign off on those elements of the facility. Such tests are not considered to be a part of the Validation process required by the

regulations, but are considered a functional verification of the design, construction, installation and operation of the equipment.

NOPSA should agree with the Operator, at the Scope of Validation negotiation stage, which tests and activities would fall into such a category, in other words clearly define the end point at which the Validation for the purposes of the regulations is considered to be complete. Commitments made by the Operator to perform such tests should be captured in the Operations Safety Case and may be followed up by NOPSA during planned inspections.

4.6 Scope of Validation - General requirements

Once Validation is requested, NOPSA OHS inspectors are required to engage with the Operator with a view to agreeing the Scope of Validation for a proposed facility or significant change to an existing facility due to a proposal to modify or decommission that facility. The Scope of Validation will vary dependant on the circumstances and the stage in the life for which Safety Case acceptance is being sought. When NOPSA formally requests a Validation, it will propose, in general terms, those elements of a facility that it considers requires Validation. The Operator should consider these elements and respond to this request with a proposed scope of its own. A number of factors should be considered by the Operator in developing the proposed scope of validation, which are discussed below.

The scope of the Safety Case and activities it covers determines which equipment must be validated before a Safety Case for a particular stage in the life of the facility can be accepted. The focus should be on equipment, a failure of which, would pose a high risk to personnel at that stage in the life of the facility (e.g. result in an MAE).

For a proposed facility, the selection of elements for Validation should be based on the findings from the Hazard Identification and Risk Assessment process undertaken to identify Major Accident events (MAE) and hence Safety Critical Elements of the facility that provide barriers to those identified MAEs. It is these Safety Critical Elements that should be subject to Validation. The Hazard Identification and Risk Assessment process will ultimately form the basis of the Formal Safety Assessment (FSA) described in the Safety Case for the facility, see notes below "Consistency with FSA".

For a Validation of a significant change to an existing facility, the elements selected to comprise the proposed Scope of Validation should be based on the following principles:

- any previously validated elements of the existing facility affected by the significant change proposed should be re selected for Validation;
- any new equipment to be installed on the existing facility as part of the significant change that falls into the categories of equipment already subject to Validation; and
- any new equipment to be installed on the existing facility as part of the significant change that is identified by the risk assessment as being safety critical.

Note that it is beneficial if the Scope of Validation is not just a simple list of the identified Safety Critical Elements of the facility to be validated, but contains additional information on:

- how these elements have been selected for Validation,
- identifies when Validation of certain elements is required to be completed and submitted in order to permit acceptance of the Safety Case for a particular stage in the life of the facility,
- the extent of any marine certification if applicable,
- the form of the Validation deliverable,
- the codes and standards against which the safety critical elements will be validated, and

- information about the Validator's competency, access to data and independence.

4.6.1 Lifecycle stages

As discussed above, the Scope of Validation must be aligned to the facility type and the stage in the life of the facility for which Safety Case acceptance is being sought. It should be noted that the Regulations state that a Safety Case is not required for construction or modification of a facility at a location that is not in Commonwealth waters, e.g. at a remote shipyard. In this instance, the types of Safety Cases submitted, and consequently, the related Validation, would be affected.

For example consider Validation for an FPSO project:

An FPSO and related subsea equipment may make up a facility. Typically the component parts of the "facility" are "constructed" at remote locations in other countries, and therefore a Safety Case for the construction stage in the life of the "facility" (i.e. the whole development) is not required. In order to operate in Australia, the facility would simply require a Safety Case for:

- the "installation" stage in the life, i.e. for the installation of these component parts at the location within Commonwealth waters where they are to be used, along with,
- a Safety Case for the "operations" stage in the life.

For example, an installation Safety Case for an FPSO would normally cover the installation of the riser and mooring system, flowlines, manifolds and other subsea equipment. Lifting operations are typically the high risk activity at this stage, (e.g. lifting the riser off the barge and deploying it in water. Consequently, Validation would be required for the design and construction (fabrication) of the riser and the lifting equipment (e.g. lifting beam – if used), before the installation Safety Case for the FPSO could be accepted.

On the other hand, Validation would not normally be required at this stage for the design and construction of the mooring system as its failure at this point in time would have limited safety impact. This does not mean that an Operator should be prevented from submitting the mooring system Validation at this stage, should he wish to do so, as he would be required to submit it (the mooring system design and construction/installation Validation) at a later time when the operations Safety Case is considered for acceptance by NOPSA.

4.6.2 Agreeing the form of the Validation deliverable

The expectations for the Validation deliverable should be captured when the Scope of Validation is agreed. If NOPSA and the Operator are clear on what is expected by way of "the Validation", then the Validation deliverable may be limited to a simple statement by an independent, competent Validator to the effect that all matters covered by the agreed Scope of Validation are considered in compliance with an appropriate standard, code or class. Alternatively the Validation deliverable may be in the form of a report or certificate for each of the elements identified by the Scope of Validation, see discussion in section 4.8.

4.6.3 No subsequent additions

The expectation is that there should be no second bite at the Scope of Validation agreement. Once the scope is agreed, it is preferable if there are no subsequent additions, as it would be unreasonable of NOPSA to expect an Operator to renegotiate contractual arrangements with Validators at a future point. If the selection of elements subject to Validation is based on sound principles, then it is not envisaged that, on submission of the facility Safety Case, there would be major misalignment between the elements of the Scope of Validation agreed and the subsequent FSA, (for example it is conceivable that there may be hazards identified in the FSA that result in an MAE and the mitigation

measures identified for this MAE were not subject to Validation), see discussion in section 4.6.5.

NOPSA's view is that as part of the Safety Case assessment process there is sufficient scope to request further information or clarification with respect to these elements, to be input into the Safety Case, such that the reasonable assurance required in OPS Regulations 2.40(4) is maintained.

It is however recognised that there may be circumstances where the design of a proposed facility is changed after agreement of the Scope of Validation. NOPSA therefore reserves the right to request changes to the Scope of Validation agreed, albeit only in exceptional circumstances.

4.6.4 Appropriate standards

It should be noted that for those elements of a facility which are included in the agreed Scope of Validation, there should be a statement by the Validator with respect to compliance with the standards validated against and the appropriateness of those standards. NOPSA should ensure that the Operator is aware of this when agreeing the Scope of Validation. It may be necessary to agree with the Operator appropriate standards or codes against which the Validator will validate. By agreeing to specified standards or codes at the Scope of Validation agreement stage, NOPSA is agreeing that if the Validator concludes that the requirements of the standard or code have been complied with, then NOPSA can be reasonably assured that the health and safety of people will be protected.

4.6.5 Consistency with the FSA

For a proposed facility, the legislation requires that Validation be consistent with the FSA for the facility. Operators typically conduct coarse HAZID workshops early in the design stage, and use output from these to identify Safety Critical Elements of the development that will ultimately be subject to Validation.

NOPSA inspectors should ensure that the elements of the Scope of Validation put forward by the Operator for agreement have been selected based on formal stated criteria, whether experience based or via Hazard Identification and Risk Assessment of the facility and its envisaged activities, that will form the basis of the FSA ultimately described in the Safety Case. This should result in Safety Critical Elements, i.e. those that form barriers to major accident events, being properly identified, included in the Scope of Validation and ultimately validated against appropriate standards. In this manner consistency between the Validation and the FSA can be assured.

4.6.6 Marine Classification certificates

It is likely that some of the features of marine vessels, Floating Production, Storage and Offloading vessels (FPSO), FSO's, accommodation barges, Mobile Offshore Drilling Units (MODUs), pipe lay barges etc. that are facilities under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGSA), would be subject to a form of Validation by a reputable classification society at the time of design and construction, and subsequently on an ongoing basis, resulting in marine/class certificates being issued for the vessel.

If such a vessel is a proposed facility under Schedule 3 to the act, then the Operators of these facilities may be requested to provide a Validation, as discussed in OPS Regulation 2.40. The OPS regulations require NOPSA and the Operator to agree the Scope of Validation for the facility, prior to submission of the Safety Case for the facility. As part of this agreement, OHS inspectors should ensure that the Operator understands what is expected by way of the Validation deliverable. In general terms the Validation must:

- address all elements of the agreed Validation Scope; and

- be compliant with OPS 2.40, and be supported by information with respect to the Validator, in accordance with OPS 2.40(5).

The Operator of a facility for which a Validation is requested, and that is subject to marine classification, may claim that the class certification serves to address the Validation requirement, (i.e. satisfy the requirements of OPS 2.40(2) or (3) and (4)), for the facility, assuming that the Validator meets the requirements of OPS 2.40(5). Compliance with OPS 2.40(5) must be separately established including competence, access to data, ability to form an independent opinion. Typically marine vessel classification societies are reputable organisations such as Lloyds, DNV, ABS or BV and are members of the International Association of Classification Societies (www.iacs.org.uk).

It should be recognised that the class certification of a vessel may not apply to all elements of that vessel, but be limited to certain marine aspects. Alternatively, as is sometimes the case with MODUs, the class certification may extend to include certain aspects of the drilling equipment.

It should also be recognised that some class certification is against old or outdated codes, that have been replaced by newer codes or standards that provide for better safety outcomes.

When setting out to agree a Scope of Validation for facilities subject to marine classification, it is useful for NOPSA to be aware of the extent and type of marine classification certification that is applied. This discussion must occur at the Scope of Validation agreement stage and can only come from direct discussion with the Operator. OHS inspectors should request the Operators of such facilities to explain, clarify and provide documentary evidence as required, in order to determine the extent and appropriateness of the marine classification certification in the context of Validation.

When agreeing the Scope of Validation for facilities subject to marine classification, the marine classification certification may be accepted as providing the reasonable level of assurance that those elements of the vessel to which they apply incorporate measures to protect the health and safety of the facility, as required by the Regulations.

However, where outdated or otherwise inappropriate codes or standards are applied, NOPSA may request that the facility is validated to newer more appropriate codes or standards.

The OHS inspector may simply choose to leave these elements of the facility within the Scope of Validation, and accept that the marine certification provided with the Validation deliverable provides a reasonable level of assurance that those elements of the vessel to which they apply incorporate measures to protect the health and safety of the facility.

For a proposed facility of this type, it may be preferable for the Operator to engage an independent competent third party Validator to consider all of the identified safety critical elements of the facility, and to form a view as to compliance with appropriate codes, standards and class rules. This is particularly pertinent to older vessels that are about to enter the regime for the first time and that may carry classification against older codes and standards.

In this way, the Validation deliverable may be restricted to a simple certificate or statement from an independent Validator, rather than a collection of marine certificates, supported by Validator statements with respect to the elements of the vessel identified in the scope that are not covered by marine certification.

In summary, in agreeing the Scope of Validation, NOPSA should discuss with the Operator the extent of the marine classification certificates, the appropriateness of those codes and standards, and the elements of the design, fabrication and construction of the vessel to which they apply.

4.6.7 Validation and Diving Spreads

Experience has shown that portable saturation diving systems have more hardware and equipment issues, from a safety viewpoint, than do permanently installed diving systems. Permanently installed diving systems are usually built to class society rules and maintained in class with a classification society. Portable systems are not commonly “in class”, whereas those installed permanently in Diving Support Vessels (DSVs) are usually in class with the same classification society as the vessel classifying society – though not necessarily so.

Diving systems that are maintained in class have additional ongoing third party verification over and above what most diving companies and vessel companies provide for with portable diving systems; such as:

- Class must be involved in the installation
- Periodic surveys
- Any changes must be agreed to by Class
- Maintenance of comprehensive certification for all elements of the system.

Facilities planning on entering the regime will be subject to Validation, the scope of which must be agreed before submitting the Safety Case for the facility. Where these proposed facilities have diving systems installed the diving system should also be included in the Scope of Validation. Where an existing facility proposes to install a saturation diving system then this modification constitutes a significant change triggering a Safety Case revision, and hence will be subject to Validation.

Diving systems that are designed, built and maintained in class should be able to meet the requirements for Validation. Diving systems that are not maintained in class with a classification society may require closer scrutiny with respect to Validation and will be considered on a case by case basis. Operators intending to install diving systems on existing facilities should engage with NOPSA at the earliest opportunity to discuss the Validation expectations.

4.6.8 Validation of Well Testing Equipment

The proposed installation on a facility of well test equipment, nominally including such items as process separators, surge tanks, steam generators, choke manifolds and high pressure piping, is deemed to constitute a *proposed modification* within the Scope of OPS 2.30(1)(b)(ii) thereby triggering a requirement for a revision of the facility Safety Case.

Similarly, such a *proposed modification* is deemed to be within the definition of significant change stipulated within OPS 2.40(1)(b) thereby enabling the Safety Authority to require the Operator to provide a Validation in respect of the proposed significant change to the facility. As a matter of policy the Safety Authority has determined that that it shall request a Validation in every such instance. Consequently, the Validation process discussed in section 4.4 above is applied and typically the agreed Scope of Validation would address, at least:

- the proposed equipment process layout, control systems, (including ESD systems) instrumentation, any related modifications to the facility primary structure and the consequences of any change in the hazardous area zoning arising from the layout of the equipment and,
- the design standards of the proposed pressure vessels, control and relief valves, high pressure pipe-work, steam generators, burners and other safety critical or hazardous equipment.

4.7 The Validator

OPS Regulation 2.40(5) requires that the operator submits information on the Validator in addition to the actual Validation. An Operator may choose to incorporate such material into the Validation deliverable, however it should be recognised that it is beneficial for NOPSA to be assured of the Validator's independence, competency and ability, and that he will have appropriate access to data, prior to the Validation being delivered. This may therefore be discussed in conjunction with agreement on the Scope of Validation and submitted to NOPSA ahead of the Validation itself. Note that OPS Regulation 2.40(5) talks in terms of a person who undertakes Validation. This is taken to mean both an individual, or an organisation.

The following indicates the information which the Operator may be expected to provide in order to satisfy Regulation 2.40(5):

4.7.1 Competence and ability

The Validator must be competent and able. The Operator must satisfy NOPSA that each person who undertakes the Validation is competent and able to do so. The Operator may demonstrate this by:

- describing the process for the Operators selection of the Validator(s);
- describing the Operators competency criteria for Validator(s); and
- assessing the competency of the Validator(s) against the above criteria.

4.7.2 Access to data

The Validator should confirm in his report that he has had sufficient access to the necessary information to allow him to make his decision.

4.7.3 Independence

The Validator must be sufficiently independent to form an impartial opinion on the matter. The Operator may demonstrate this by providing:

- evidence of the Validator being, or being employed by (in the case of an individual) an independent organisation, which was not involved in the design, manufacture, construction or installation of the equipment being validated (e.g. Validation certificate issued through Lloyd's or ABS); and
- evidence of the Validator being or being employed by (in the case of an individual) an organisation separate to the Operator (e.g. a copy of the Validation contract between the Validator, or Validator's organisation and the operator); or
- if the Validator is directly employed by an organisation providing Validation and design (or fabrication or installation) services:
 - a documentary evidence that the company has not been involved in the design, fabrication or installation of the validated equipment; and
 - a written statement from the Validator confirming his independence (e.g. that he was not involved in the design, fabrication or testing of the validated equipment and that he was not under pecuniary or any other pressure to produce positive Validation).

Note: a Validator working for:

- an Operator; or
- an organisation involved in the design, fabrication or installation of the validated equipment,

(even if the Validator is working in a unit separate to the design, fabrication or installation division, department or branch etc), is not considered sufficiently independent.

4.8 The Validation deliverable

It could be envisaged that the Validation may be delivered in two forms:

1. For proposed facilities, or for significant changes to existing facilities, with a clearly identified Scope of Validation, the Validation deliverable may be in the form of a report containing a statement or set of statements, indicating that the elements of the facility selected for Validation have been designed, constructed and installed in compliance with nominated standards, codes and rules.
2. For more complex facilities a two tier Validation approach may be used with the submission of a Validation report containing:
 - a section with the specific items and areas being validated, and certification/Validation reports issued, by discipline Validators (e.g. pressure equipment Validators); and
 - another section with the lead Validator's report providing an overall Validation with respect to the agreed Scope of Validation (based on the certification and Validation reports issued by the discipline Validators) as per regulation 2.40.

Initial discussions with the Operator and NOPSA may agree that only the lead Validator's report need to be submitted for review subject to the discipline Validators' reports being available for review if requested.

It is important to note that the Validation delivered to NOPSA must satisfy the requirements of the legislation, i.e. OPS regulations 2.40(2), 2.40(3), and 2.40(4).

No conditions: NOPSA, as a matter of policy will not make conditional acceptances of Safety Cases. As a review of the Validation is one of the factors to be considered in making a decision on Safety Cased acceptance, it follows that any conditions in a Validation submission would mean NOPSA would not be able to accept the Safety Case.

5 Definitions

The definitions relating to this Guideline are in the Glossary – N-09000-GL0326 (Objective ID reference: A15541).

6 Other Matters

6.1 Validation of different facility types:

Type of facility	Activities considered	Safety Case	Validation issues
Large fixed platform	In-situ installation of jacket	Platform Installation Safety Case.	Validation of any Safety Critical Elements associated with MAEs identified for the installation of the jacket, e.g. Validation of pile driving, launching off a barge etc.
	Installation of topsides, non hydrocarbon commissioning	Platform installation Safety Case. Note may be same document as above or may be a formal revision to the above document.	Validation of any Safety Critical Elements associated with MAEs identified for the installation of topsides, e.g. Validation of lifting equipment, platform structure, etc.
	Operations,	Platform Operations	Validation of the design, construction and

Type of facility	Activities considered	Safety Case	Validation issues
	including hydrocarbon commissioning	Safety Case. May be a revision to the above Installation Safety Case or a new Safety Case.	installation of the identified Safety Critical Elements of the facility is required to be complete in order to provide assurance that the facility is fit for purpose to operate. Operational functional testing of equipment is considered a verification activity and not part of the Validation Scope.
New FPSO facility(note facility extends to include subsea equipment)	Installation of subsea equipment, moorings risers etc	Installation Safety Case.	Validation of Safety Critical Elements relative to the installation stage in the life of the facility, e.g. lifting points/equipment used to install the components parts of the facility.
	Hook up of subsea equipment to floating buoy, arrival of FPSO and non hydrocarbon commissioning	Installation Safety Case. Note may be same document as above or may be a formal revision to the above document.	Validation of the balance of the identified Safety Critical Elements.
	Hydrocarbon commissioning and operations	Operations Safety Case. Considered a formal revision to the above Installation Safety Case.	Validation of the design, construction and installation of the identified Safety Critical Elements of the facility is required to be complete in order to provide assurance that the facility is fit for purpose to operate. Operational functional testing of equipment is considered a verification activity and not part of the Validation Scope.
Old MODU, new to Australian waters	General drilling operations	Operations Safety Case	Validation of the design, construction and installation of the identified Safety Critical Elements of the facility is required to be complete in order to provide assurance that the facility is fit for purpose to operate. Marine certification may apply to some of the identified Safety Critical Elements of the facility. Validation of Safety Case that are not covered by Class certificates. Validation of modifications made in shipyard.
Existing MODU working in Australian waters	Temporary, recurring, modifications - well testing	Formal revision to existing Operations Safety Case in force. Note installation of well test equipment is deemed to be a significant change to an existing facility, thereby triggering a	Validation of the design, construction and installation of the significant change (the well test equipment) is required to be complete in order to provide assurance that the significant change is fit for purpose to operate.

Type of facility	Activities considered	Safety Case	Validation issues
		revision.	
Marine vessel undertaking construction/installation activities	Installation of the component parts of a host facility, e.g. vessel installing subsea elements of an FPSO development.	Operations Safety Case	Validation of the design, construction and installation of the identified Safety Critical Elements of the facility is required to be complete in order to provide assurance that the facility is fit for purpose to operate. Marine certification may apply to some of the identified Safety Critical Elements of the facility.

7 Critical Success Factors

- The success of this process depends on agreeing a Scope of Validation that is both effective and deliverable.
- The Validation must be aligned with the scope of the Safety Case that is going to be assessed subsequent to the agreement.
- Early engagement with the Operator, and the Validator, is beneficial to ensure that what is delivered to NOPSA clearly satisfies the legislative requirement.
- There should be a clear view of what “treatment” is required for each element, such that an unconditional Validation report can be provided in a reasonable time frame, and assurance about other matters that require verification are adequately covered in the Safety Case.