



Department of **Energy, Mines,  
Industry Regulation and Safety**



**WorkSafe**  
Western Australia

INTERPRETIVE GUIDELINE

# Development and submission of a safety case

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## Reference

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# Foreword

Western Australia's work health and safety (WHS) legislation came into force on 31 March 2022. This legislation resulted in the amendment of the various petroleum Acts and the repeal of the associated regulations so that all onshore and offshore petroleum, pipeline and geothermal energy operations are now subject to the requirements of the:

- *Work Health and Safety Act 2020* (WHS Act)
- *Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022* (WHS PAGEO Regulations).

A key responsibility for the WorkSafe Group (WorkSafe) of the Department of Energy, Mines, Industry Regulation and Safety is the ongoing risk management and safety requirements for the onshore and offshore petroleum, pipeline and geothermal energy operations. To support these requirements guidance previously developed have been updated to assist operators to meet their commitments under the WHS Act and WHS PAGEO Regulations.

## Using this Interpretive guideline

The regulator publishes interpretive guidelines to provide guidance on how key concepts in the WHS Act and regulations will operate.

You should use this Interpretive guideline if you are:

- the operator of an onshore or offshore petroleum, pipeline or geothermal energy operation under the WHS Act, and
- required to develop and maintain a safety case under the WHS PAGEO Regulations.

There are separate Interpretive guidelines for the development of the following:

- *Development and submission of an onshore facility – drilling operations safety case*
- *Development and submission of a diving safety management system.*

## WHS legislation

Under the WHS Act, the WorkSafe Commissioner is responsible for performing the functions and exercising the powers of the regulator. Each safety document must be submitted for acceptance by the regulator.

WorkSafe assists the regulator in the administration of the WHS Act and the WHS PAGEO Regulations, including the provision of inspectors and other staff to oversee compliance with the legislation.

The WHS PAGEO Regulations provided for transitional provisions in relation to facility operators and safety cases in place or submitted before the commencement of the WHS legislation.

For facilities outside the Western Australian waters, the WHS Act does not apply and guidance should be sought from National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). If a vessel does not fall under the definition of “facility” in the WHS Act, operators should contact the Australian Maritime Safety Authority and the Department of Transport.

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# 1 Safety case required for operations

## WHS PAGEO Regulations r. 20

Facility must have operator

## WHS PAGEO Regulations r. 27

Safety case required for operations

## WHS PAGEO Regulations r. 28

New or increased risks

The safety case must be in force before any petroleum or geothermal energy operations are commenced or undertaken. The safety case outlines the:

- type of facility and the activities undertaken
- types of safety studies undertaken
- results of those studies
- safety management arrangements to address the findings of those studies
- emergency response plan for the facility.

The content of the safety case is the basis against which WorkSafe Petroleum Safety inspectors (inspectors) will conduct periodic inspections and assessments of the operator's activities at the facility. It must cover all activities likely to take place at the facility, including those of all workers. Workers, under the WHS Act, includes contractors and subcontractors.

In the event of an accident or incident, the safety case may form part of evidence in legal proceedings. A safety case accepted by the regulator must be in force for all phases of the operation, including:

- construction
- commissioning and operations
- modifications, upgrades and significant changes to the facility
- decommissioning.

The operator must ensure that there is a process in place for the smooth transition for update, review and acceptance of the safety case before any prescribed activity commences at the facility.

If new or increased risks are identified that are not adequately covered in the safety case, then a person must not engage in that operation until the safety case is updated, reviewed and accepted by the regulator.

Under the WHS PAGEO Regulations, an operator may choose to submit a facility design case prior to development of the formal safety case for the facility (Section 1.1).

No petroleum or geothermal operations can be conducted on any onshore or offshore petroleum, pipeline or geothermal energy operations unless the facility has an operator registered in accordance with the requirements of WHS PAGEO Regulations.

The operator is considered to be a person conducting a business or undertaking (PCBU) under the WHS Act. Refer to the [Interpretive guideline: The meaning of 'person conducting a business or undertaking' \(PCBU\)](#) for further information regarding duties under the WHS Act.

The registered operator is responsible for submission of safety cases to the regulator under the WHS PAGEO Regulations. It should therefore be noted that while there may be a number of facilities covered by a safety case, all of these facilities must have the same registered operator. It is not possible to submit a safety case to the regulator covering multiple facilities with different registered operators.

For more information on facility operators, refer to the *Guide: Nomination of an operator*.

## 1.1 Facility design case

WHS PAGEO Regulations r. 25  
Submission of facility design case

A facility design case (FDC) is a document that sets out a broad overview of the design of a facility and may be deemed necessary by the operator, nominator or prospective nominator when proposing new or innovative materials or plant in the construction of a facility. The requirement to develop an FDC is not mandatory and is at the discretion of the operator.

If the operator considers that an FDC is necessary, the operator should arrange to liaise with inspectors prior to commencing development of the FDC to outline their proposed development and submission.

The intent of the FDC is to enable the operator to provide details to the regulator of the engineering and design of a new facility. The focus should be on the safety and risk management processes to be employed in the design of the facility as well as providing details of the proposed layout, plant and control systems, how the facility will be expected to operate and the proposed ongoing management of the facility. These details can subsequently feed into the safety case for the operation at the facility.

For more information, refer to the *Guide: Facility design case*.

## 2 Preparation of safety case documentation

### 2.1 Compliance checklist

A compliance checklist (Appendix 3) has been developed alongside this Interpretive guideline to assist operators to prepare safety case documentation. It is suggested that operators include a compliance checklist in an appendix to the safety case, listing the regulations and applicable section that covers the requirements of those regulations.

Completion of a compliance checklist during the development and internal review of the safety case should verify that sufficient information has been included and each element of the legislation has been covered. The compliance checklist can act as a self-assessment tool for the operator and assist in avoiding potential delays in the acceptance of the safety case by the regulator.

### 2.2 Planning and liaising with inspectors

Operators should ensure that appropriate planning is in place for the development of the safety case for each phase of the operation at the facility.

It is strongly recommended that operators meet with inspectors prior to the commencement of a new safety case, or a five yearly update of a safety case.

The process for reviewing and gaining acceptance of safety case documents is extensive and cannot be completed quickly. By meeting with inspectors, operators will be able to review and discuss the proposed activities to be conducted on the facility as well as the operator's approach to managing those activities. It should be noted that the regulator does not provide a consultancy service to review drafts prior to formal submission for acceptance (refer to Section 4.2).

These meetings must also include discussion and agreement on the scope of any validations required for the various phases of the operations at the facility.

Developing this interaction with inspectors early in the process provides the basis of a good working relationship and an understanding of requirements between the operator and the regulator. This will also serve to identify and eliminate possible adverse effects on such things as the calculation of the safety levy applicable to the facility, and any inconsistencies arising throughout the safety case that could be addressed prior to completion and submission for review and acceptance by the regulator (Section 4.4).

## 2.3 Content of the safety case

The safety case should demonstrate two key points.

First, it should describe the systems used by the operator to define:

- how hazards are identified and risk assessed
- how the risk is managed so far as is reasonably practicable (SFAIRP), verified, validated and kept up-to-date.

Second, it should show the outcomes from applying those systems to define:

- what hazards are on site
- what is the risk associated with the hazards
- results of the SFAIRP risk reduction verification and validation.

The operator is required to divide their facility safety case into four divisions; namely, operations description, safety management system, formal safety assessment and emergency response plan; however, it is beneficial to also have an introduction section as indicated below.

After the introduction, each division has defined content:

- Introduction outlines the scope and purpose of the document, the legislation, principal standards and codes of practice covering the facility, approval and custodian details of the safety case, address for delivery of communications regarding the safety case and other administrative requirements (Section 3.1).
- Operation description provides a concise overview of the facility, its function and control systems (Section 3.2).
- Safety Management System (SMS) provides a detailed description of the management systems in place to maintain the safety of the facility and personnel. This includes performance standards for safety critical elements (SCEs) and supports the findings from the formal safety assessment (Section 3.3).
- Formal safety assessment (FSA) provides a detailed description of the risk management methodology in place for the facility, a summary of the risk assessment consultation/ workshops, details of identified major accident events (MAEs), demonstration of risk reduction SFAIRP and bowtie diagrams (Section 3.4).
- Emergency response plan (ERP) provides a detailed description of the emergency response plan for the facility including evidence that the emergency response plan complies with the legislative requirements (Section 3.5).

The safety case should emphasise consultation, worker participation and a continual improvement approach to health and safety and risk management. The reader should be assumed to be non-technical and independent.

It is the responsibility of the operator, not the regulator, to specify what is required for safety and legislative compliance. In the safety case, the operator should:

- clearly define the activity
- identify the process of how the activity will be conducted safely
- show SFAIRP risk reduction justification
- summarise the activity within the safety case.

The safety case content is the basis against which inspectors will conduct periodic inspections and assessments of the operator's activities on the facility. It should cover all activities likely to take place on the facility, including those of contractors and subcontractors.

The operator of the facility is required to ensure the safety case is reviewed and updated regularly to include any significant changes for new or increased risks, equipment or operational changes. A full review of the content of the safety case must be undertaken at five yearly intervals after the safety case was first accepted by the regulator (Section 3.1.5).

## 2.4 Referencing and hyperlinking within the safety case

Throughout the safety case there are many requirements to reference the operator's procedures and other documentation summarised within the safety case. As many operators now maintain their documentation within online databases it is preferred that, where possible, these referenced documents are hyperlinked to provide ease of access.

Operators should avoid the inclusion of large amounts of text, plant and equipment diagrams and drawings in the safety case as this duplication of information could result in the safety case being out of date if the duplicated information is changed within the original document. A brief description and reference to the original document/drawing title and document/drawing number should be sufficient to cover the requirements of the safety case.

If an operator wishes to refer to another document from within the safety case, this supporting document needs to be:

- explicitly identified in the safety case
- identified in some manner as being linked to the safety case
- available to the regulator for review as part of the overall review and assessment of the safety case
- able to be used as the basis for inspection to confirm that the document complies with legislation and that the operator is conforming with the document
- maintained under document control to ensure that only the current version is available to workers and previous versions have been archived
- a controlled document that is subject to the same change controls as the parent safety case with all changes recorded and available for review
- subject to the same internal compliance quality assurance and quality control as the parent safety case to ensure that referenced documents meet the legislation and are being complied with.

The safety case should include a concise overview of the content of the referenced document provided with the hyperlink. A single sentence under the heading of a regulatory requirement that includes the hyperlinked document is not sufficient content for the safety case.

## 2.5 Involvement of workers

WHS PAGEO Regulations r. 38  
Involvement of workers

The operator of the facility must ensure that workers are involved in the development or revision of the safety case for the operation associated with the facility.

For further information, refer to the *Guide: Involvement of workers*.

## 2.6 Safety case – supporting documentation

WHS PAGEO Regulations r. 54  
Regulator may request more information

The regulator may request that the operator provides further written information about any matter required by the WHS PAGEO Regulations to be included in a safety case.

The information provided will be formally considered as part of the safety case submission.

Typical examples of information requested are:

- any procedures or plans referred to within the safety case as containing pertinent information supporting that required by the WHS PAGEO Regulations. This includes document control, records management and emergency response plans (ERPs)
- quantitative and qualitative risk assessments
- consequence analyses
- SFAIRP risk reduction assessments
- hazard and operability study (HAZOP)
- hazard analysis (HAZAN)
- hazard identification (HAZID)
- layer of protection analysis (LOPA)
- failure mode effects analysis (FMEA)
- fire and explosion risk analysis (FERA)
- engineering studies and analyses
- external certification.

## 2.7 Safety case level of detail

The safety case is a roadmap to ongoing health and safety processes and risk management on the facility and is a standalone document.

Reference to other documents within the safety case should be sufficiently detailed for all readers to understand the operations of the facility, the associated risks and systems in place without referring to other documents.

It must be auditable; that is, make statements that the operator can objectively prove have been achieved.

Some common issues identified in safety case submissions include:

- inadequate identification of MAEs
- vague statements, rather than specific facts about the facility
- discrepancies between the FSA and other parts of the safety case
- inclusion of assertions, independent of the risk assessment, about the overall acceptability of the design
- provision of too much operational detail so the currency of the document is difficult to maintain
- discrepancies in facts provided
- discrepancies between written descriptions and figures or drawings
- poor cross-referencing
- lack of review or quality assurance processes
- illegible drawings or figures
- preparation in isolation without managerial and technical input
- preparation in isolation without worker input
- assuming that compliance to a standard is sufficient
- writing the safety case as though the regulator is the intended audience, rather than workers at the facility.

## 2.8 Maintaining records for the safety case

### WHS PAGEO Regulations r. 31

Maintaining records for safety cases

### WHS PAGEO Regulations r. 50

Arrangements for records

The operator of a facility must keep all documents required by the safety case in force in the manner set out in the safety case.

The safety case for an operation must include arrangements for making a record of the safety case in force for an operation at any particular time and each revision of the safety case. It is also required that a record must be available for each written audit conducted against the safety case.

These documents and records must be made available to workers who need to be aware of the contents.

Documents and records must be securely stored at an address nominated for the operation and in a manner that facilitates their retrieval as soon as practicable.

The safety case in force for an operation must be kept for five years after the date of acceptance of the document by the regulator. Written audit reports for a safety case must be kept for a period of five years after the date of receipt by the operator.

## 2.9 Compliance with safety case

**WHS PAGEO Regulations r. 29**

Compliance with safety case

**WHS PAGEO Regulations r. 30**

Persons to comply with safety case

**WHS PAGEO Regulations r. 57**

Consent to undertake activities in manner different from safety case requirements

A person engaging in an operation must do so in accordance with the safety case in force for the operation. This includes persons at or in the vicinity of a facility at the invitation of, or implied consent of, the operator must comply with each applicable provision of the safety case in force.

An operation may be carried out differently to the requirements of the safety case in force for the operation, under terms given in writing from the regulator to the operator for those activities.

### 2.9.1 Access to safety case

**WHS PAGEO Regulations r. 49**

Access to safety case

The operator of a facility must ensure that upon request, the safety case is readily available to:

- any worker at the facility
- any health and safety representative for workers at the facility
- the regulator.

# 3 The safety case

## WHS PAGEO Regulations Part 2, Division 4, Subdivision 3

Contents of safety cases

### WHS PAGEO Regulations r. 32

Operation description, formal safety assessment, safety management system and emergency response plan

### WHS PAGEO Regulations r. 28

New or increased risks

## 3.1 Introduction

The introduction of the safety case covers the administrative requirements for the document and gives an overview of the structure of the safety case.

A paragraph should include details of the ownership of the facility. As the operation may be covered by numerous licences, details should be included for each licence, along with any variation to the original licences and showing the percentage of ownership for each stakeholder if the operation is subject to a joint venture.

The introduction should also include details of the registered operator under the WHS PAGEO Regulations who is responsible for the day-to-day management, control and safe operation of the facility.

### 3.1.1 Scope and objectives

Briefly outline the scope and objectives of the safety case demonstrating the operator has a management system capable of systematically and continuously identifying, assessing and eliminating or minimising the hazards and risks to persons at or in the vicinity of the facility.

Reference to the phase of the facility operations should be included, for example:

- construction – design, construction and installation of a facility including any pre-commissioning and cold commissioning to be carried out
- commissioning and operations – covers all activities for completion of commissioning and handover to operations and maintenance
- care and maintenance – indicates any areas of the facility that are to be placed into care and maintenance and how this will be managed
- decommissioning – identifies all or part of the facility that is to be decommissioned and the processes and procedures in place to manage that activity including details of identified MAEs that may arise during this particular activity.

Cover the requirement for the safety case to be in force for the operation being undertaken and that this prevents a person engaging in an operation where any new or increased risks have been identified which are not currently covered in the safety case in force.

Some phases of the operation that involve work to be conducted by contractors may require bridging documentation to take into account simultaneous operations (SIMOPS) (Section 3.3.15).

For offshore facilities include an overview of the management of the safety case taking into account effective start and stop dates indicating when the facility is active and how this will be tracked by the operator and communicated to the regulator. The operator should include details of this in the SMS section of the safety case which should be cross-referenced in the introduction section.

An operator can apply to the regulator for the suspension of a safety case in force (Section 4.9).

For the facility to be classed as inactive, there should not be any activities taking place. Care and maintenance does not equate to the facility being inactive. Accurate classification of the facility as active or inactive is critical for the calculation of the safety levy under the Petroleum and Geothermal Energy Safety Levies Regulations 2022.

### 3.1.2 Legislation

A list of all legislative and statutory requirements covering the facility should be provided. It is recommended these legislative requirements are clearly set out in table format for ease of reference.

This should also include details of how these requirements are monitored for any changes so that the information in the changed legislation can be reviewed and the safety case updated as required. Any changes should be updated through the operator's management of change process (Section 3.3.17).

### Interactions with NOPSEMA

There is no formal mutual recognition between the regulator and NOPSEMA, so an operator should include details in their safety case about how they will manage the cross-jurisdictional issues between Western Australia (WA) and the Commonwealth.

When developing the facility safety case, operators should include reference to both sets of legislation, as the WHS PAGEO Regulations are closely aligned to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*. When submitting their safety case to the regulator for acceptance, a copy of the formal letter of acceptance from NOPSEMA should be included.

In the event that operations in WA waters will differ from those included in the safety case accepted by NOPSEMA, a bridging document will also be required. The bridging document should:

- link the NOPSEMA approved safety case to the requirements of the WHS PAGEO Regulations
- include details of how the operator will monitor and manage any changed safety requirements when the facility moves across the borders between the Commonwealth and WA regulators.

### 3.1.3 Definitions and abbreviations

Definitions and abbreviations should be included for any acronyms or terms used in the safety case, either in the introduction or in the appendices. If they are in an appendix, then this should be noted in the introduction.

For accuracy and consistency, the operator should use the definitions within the WHS Act and the WHS PAGEO Regulations in the safety case.

### 3.1.4 Approval and custodian details

The registered operator or operator's representative approving the safety case must have the authority to impose the requirements of the safety case on all workers, including joint venture partners and contractors. The safety case should be approved by the relevant officer prior to submission to the regulator for review and assessment.

This section should include the address for delivery of communications relating to the safety case, and the name of the person who is the nominated custodian of the safety case. This may or may not be the same person as the officer authorised to approve the safety case.

### 3.1.5 Safety case revision requirements

The safety case requires monitoring and updating to incorporate significant changes in the way safety is being managed on the facility, when new or increased risks are identified, or when there is a requirement for simultaneous operations (SIMOPS) and bridging documentation to include activities not already covered in the safety case. The safety case should be dynamic and updated by the registered operator when the need to do so is identified.

It is important that the registered operator ensures that any proposed revisions take into account the timescales set out in the WHS PAGEO Regulations and that the revised safety case can be reviewed and accepted by the regulator prior to any changes taking place on the facility.

This includes revision:

- because of changing circumstances or operations – the operator of a facility must submit a revised safety case as soon as practicable after the occurrence of any significant changes to the facility or systems
- on regulator's request – the regulator may request additional or changed information be included in the safety case and the document be re-submitted for review and acceptance within a certain time period
- after five years – the safety case is required to be updated and re-submitted five years after the formal acceptance of the first version of the safety case regardless of any interim changes and updates that have been reviewed and accepted by the regulator, and every subsequent five years following acceptance of a revised safety case (Section 4.7).

For further information, refer to Section 4.

## 3.2 Operation description

WHS PAGEO Regulations r. 32(2)  
Operation description

### 3.2.1 Facility overview

The safety case operation description is an overarching description of the facility and operations within the valid period of the safety case, providing a non-technical reader with a good understanding of the facility, equipment, operation and safety critical systems including their operational parameters.

Where applicable, details should be included for the management of:

- construction – covers the construction of a proposed facility
- normal operations – most activities operating correctly with no or minor issues
- irregular operations – significant issues encountered during the operations on the facility
- shutdowns – how the operation of the facility is managed during shutdowns
- care and maintenance – the restricted operations on the facility during care and maintenance
- remote control – the areas of the facility where operations can be managed through remote control
- decommissioning – covers the requirements to be put in place for the management of health and safety, identification of risks and how they are controlled during a decommissioning operation.

The content and level of detail should be sufficient to show how equipment will function within the facility and to gain an appreciation of the hazard potential of the equipment to people at or near the facility.

The description of the operation must provide details of the following:

- the layout of the facility
- the security provisions of the facility
- the location of the facility, including a description of the local environment and surrounding area
- the design philosophy of the facility
- the specifications and inventory of petroleum at, or likely to be at, the facility
- the engineering and design controls required to ensure the safe operation of the relevant facility
- any interfaces or connections between the facility and any other place, including pipelines and electrical connections
- any certifications, licences, classifications or approvals required for the relevant facility
- the activities that will, or are likely to, take place in connection with the operation
- any other relevant matters.

The following is an indication of the details that should be included in the operation description:

- summary of key design parameters cross-referencing key technical documents
- design life of the facility at the initial design life and details of any remaining life reviews that relate to extending that design life
- details of the validation performed, by whom and when it was submitted to the regulator
- brief description of the wellsite equipment, including a layout plan of the wells and flowlines
- overview of drilling operations and how this is managed
- brief overview of the wells drilled and their current status (operational, plugged or abandoned)
- operating rates and gas composition
- brief overview of process equipment installed (e.g. compressors, coolers, filters and separators)
- utility systems for the operation including flare systems, metering, drainage, injection systems, instrumentation air systems, water, cathodic protection, lightning protection, normal and emergency power supply, gas engine alternators, lighting, and earthing
- hazardous areas and management of those areas
- external interference protection, including facility security
- overview of machinery and equipment installed at the facility and their function including compressor stations, offtake stations and delivery stations
- details of management of possible upstream and downstream impacts e.g. sudden changes in pressure, and the equipment in place to safely manage these changes
- primary systems and functions including integrity and corrosion management, overpressure protection, fire detection, gas detection, fire extinguishing systems
- emergency shutdown and isolation equipment installed
- MAEs and safety critical elements and reference to associated performance standards
- key drawings for the operations.

For offshore facilities, the following information should also be included, where applicable:

- an overview of the facility, highlighting key assumptions and phases of development and any unique features. Where parts of the facility may be outside the scope of this safety case, it may be appropriate to include a reference to those areas and identify that they are outside the scope of the safety case.
- facility location, which should detail the geographical location, meteorological conditions, geotechnical conditions, marine data in regard to shipping, and navigational hazards and transport data in regard to the basis for assessing transportation risks (e.g. flight times).

For onshore pipeline facilities, the following information should also be included:

- overview of the facility, including the start and end locations of pipelines, and the facilities installed including compressor stations, offtake and delivery stations
- geographical location, pipeline route, the location classifications along the pipeline route and a summary of environmental conditions along the pipeline route
- a brief description of the pipeline corridor including interactions with other facilities, depth of cover of the buried pipeline, pipeline crossings (road, water and rail)
- the defined interfaces with laterals off a pipeline; specifically the boundary point between the two assets as well as details of the physical, electrical and isolation control systems and how these are monitored and managed
- the defined boundaries of pipelines that cross between onshore and submerged areas and how this is monitored and managed
- the defined boundary point of a pipeline that is supplying gas to a processing plant or major hazard facility and the physical, electrical and isolation controls in place for the monitoring and management of this boundary point
- pipeline inventory and gas composition.

#### **WHS PAGEO Regulations r. 32(5)**

Safety case covering the construction or installation of a facility

For a safety case covering the construction or installation of a facility, details of the following must also be included:

- the facility during its construction or installation
- the activities that will, or are likely to, take place at, or in connection with, the facility during its construction or installation
- to the extent that is practicable – the facility and the activities that will, or are likely to, take place when the facility is in operation.

For a safety case covering the decommissioning of a facility, details of the following should also be included:

- the facility to be decommissioned
- the activities to be undertaken during the decommissioning
- details of any simultaneous operations (SIMOPs) that are scheduled to take place during the decommissioning
- details of any bridging documentation in place between an existing safety case and the proposed safety case covering the decommissioning
- details of the identification of risks, any MAEs identified, the controls in place, details of the SFAIRP risk reduction justification of for those risks
- emergency response plan covering the decommissioning activities.

### 3.2.2 Facility layout

The description of the layout of the facility and configuration of equipment should provide an effective overview of the location of key physical elements of the facility, including:

- primary safety systems and functions including fire pumps, deluge, fire and gas detection
- flowlines, risers and subsea equipment
- isolation valves
- emergency and evacuation equipment
- service systems including power, water, heating, ventilation and air conditioning, communication, including backup provisions in the case of an emergency
- utility equipment or packages
- accommodation amenities
- supporting infrastructure
- identified hazardous areas
- storage of hazardous substances and dangerous goods, including estimated inventories to be stored and used at the facility
- pipeline connections.

### 3.2.3 Machinery and equipment

WHS PAGEO Regulations r. 41  
Machinery and equipment

A broad description of the machinery and equipment installed on the facility must be included in the operation description (including process equipment, machinery, electrical and instrumentation systems) that relates to or may affect the safety or health of persons at the facility. This should provide sufficient information to demonstrate its functionality and any hazards identified. These hazards should later be taken into consideration when conducting detailed risk assessments with respect to MAEs.

Evidence that the machinery and equipment installed are fit for purpose in normal operating conditions and in an emergency must be provided by reference to the design standards, functional testing, maintenance and testing regime (Sections 3.3.21, 3.3.22, 3.3.23).

### 3.2.4 Design, control systems, structural integrity and safety critical elements

#### WHS PAGEO Regulations rr. 32(2)(d) and 32(2)(f)

Design philosophy of relevant facility

Engineering and design controls required to ensure the safe operation of the relevant facility

The operation description should contain details of the design safety philosophy, control systems and structural integrity management applicable to the facility that will enable ongoing safe operations.

This description should be customised to the facility and include how provision is made for:

- inventory isolation and pressure relief in the event of an emergency
- gaining access for servicing and maintenance of machinery and other equipment
- maintaining structural integrity of the facility
- implementation of technical and other control measures identified as a result of the FSA.

The operation description should include cross-references to the relevant MAEs, SCEs and performance standards within the FSA, SMS and ERP sections of the safety case as appropriate.

*Note: The following wording is an indication only and should not be considered as a standard inclusion in the safety case.*

### Indication of content detail for control systems and structural integrity management

- Instrumentation and control systems – describe the instrumentation and control systems installed on the operation to safeguard operations and workers in the event of equipment failure. What alarms would be activated and how these systems would operate to isolate inventory.
- Functional safety systems – describe any functional safety system in place for the operation. This should include the equipment which is managed by functional safety systems and what action would be initiated if the system shuts in equipment.
- Leak detection systems – describe the leak detection systems in place on the operations. Provide an overview of how the systems are monitored, what alarms are in place when leaks occur and reference any functional specification of the leak detection system.
- Emergency shutdown facilities – include a description of the emergency shutdown facilities installed and details of what occurrences would trigger the operation of these shutdown facilities. This needs to include details of well emergency shutdown equipment and possibly reference to the well management plan as a safety critical element (SCE) for this purpose.
- Inventory isolation – describe how inventory isolation would be activated in the various parts of the facility and pipeline.
- Pressure relief and blowdown systems – describe what pressure relief and blowdown systems are present on the operation, their location and functionality.
- Redundancy of safety systems – indicate what redundancies of safety systems are installed on the operation and how they would be brought on line as and when required.
- Black start capabilities – describe the systems and equipment installed, and procedures in place, to restart the facility in the event of a total shutdown.
- Corrosion management – describe the corrosion management system in place for the pipeline and what processes are in place for monitoring corrosion.
- Cathodic protection – describe the cathodic protection in place, how this is monitored and inspected to ensure full coverage is maintained where required.

### 3.2.5 Emergency response

The operation description should include systems and processes in place for the management of emergencies. This should include details for escape, mustering and evacuation of the facility, firefighting equipment installed and alarms that will be triggered in the event of an emergency.

The details included in the operation description should be cross-referenced with the details in the SMS, FSA and ERP.

For an offshore operation, the emergency response in the operation description should also show the management of emergencies in relation to pipelines connected to the facility and vessels and aircraft operating within the vicinity of the facility.

### 3.2.6 Offshore operations – Pipelines

WHS PAGEO Regulations r. 47  
Pipelines

The operation details must include appropriate descriptions of pipelines connected to the facility and should include operation and design data relevant to the operation at the facility.

This description must contain details for the effective control and operating of all relevant emergency shutdown valves for a pipeline, as well as fail-safe systems for isolating a pipeline in the event of failure of other safety devices.

The safety case for an offshore facility must specify that:

- in the event of an emergency there are adequate means of mitigating the risks associated with each pipeline connected to the facility
- a frequency of periodic inspection and testing of the pipeline emergency shutdown valves that can reasonably be expected to ensure that they will operate correctly in an emergency.

### 3.2.7 Offshore operations – Vessel and aircraft control

WHS PAGEO Regulations r. 48  
Vessel and aircraft control

The operation description must provide a description of the vessel and aircraft control systems in place and should include information on safety measures appropriate to the activities to be conducted at the facility involving the arrival, loading and departure of the vessels and aircraft:

- that ensures so far as is reasonably practicable, the safe performance of operations that involve vessels or aircraft
- that is able to meet the emergency response requirements identified in the FSA for the operation associated with the facility and described in the SMS for the operation associated with the facility
- the point at which a vessel becomes a facility and when it stops being a facility and how this is monitored and managed
- responsibility for when a vessel is tied up to a platform – bridging documentation between the vessel safety case and the facility case (Section 3.3.15)
- details of any third party class certificates and how they are managed.

Interaction of vessels and aircraft with the facility needs to be taken into account within the ERP for the facility and associated emergency preparedness plans such as evacuation drills.

### 3.2.8 Onshore operations – drilling and wellsite equipment

For onshore operations where drilling has taken place, include details of wellsite equipment, including a layout plan of the well locations and flow lines. Include a brief overview of the wells drilled and their current status (operational, plugged or abandoned), the operating rates and gas composition.

Also include a brief overview of the process equipment installed (e.g. compressors, coolers, filters and separators). The utility systems for the operation should also be described including flare systems, metering, drainage, injection systems, instrumentation air systems, water. Cathodic protection, lightning protection, normal and emergency power supply, gas engine alternators, lighting and earthing.

Also include a general overview of drilling operations, how these are managed and the use of the drilling operations plan as a bridging document between the safety case for facility operations and the safety case for drilling operations.

### 3.2.9 Major accident events, safety critical elements and performance standards

The operation description should include details of the MAEs identified for the facility, including for offshore facilities any that may be related to pipelines connected to the facility and vessels and aircraft operating within the vicinity of the facility. This area should then define each safety critical element in place to mitigate the risks associated with these MAEs so far as is reasonably practicable.

Cross-reference the areas of the safety case that cover those controls and the relevant performance standards developed for each SCE.

For more information, refer to the *Guide: Identification of major accident events, control measures and performance standards*.

The facility description section should be cross-referenced to the SMS, FSA and ERP where appropriate.

### 3.2.10 Provision of drawings

Details of key drawings can be referenced throughout the operations description as required within areas relating to control systems, processes and layouts, or include a copy of the drawing to demonstrate the functionality of a system.

For details of the full drawing register it may be relevant to insert a paragraph advising that a drawing register is maintained for the facility, how the drawings for the facilities are managed and that they are available to stakeholders and workers from a specific intranet area. This should also note that only the latest version of the drawings are accessible.

## 3.3 Safety management system

### WHS Act s. 19

Primary duty of care

### WHS Act ss. 20-26A

Further duties of persons conducting business or undertakings

### WHS Act ss. 27-29

Duty of officers, workers and other persons

### WHS PAGEO Regulations r. 32(4)

Safety management system

### 3.3.1 General requirements

The SMS description must define the system in sufficient detail to demonstrate the SMS satisfies the regulatory requirements. It is not the intention of the WHS PAGEO Regulations that the entire SMS be included in the safety case.

It is expected that the detailed description will provide sufficient information to demonstrate that the SMS is comprehensive and integrated, using examples where appropriate.

The SMS should also cover the work health and safety requirements included in the WHS Act covering:

- primary duty of care
- persons conducting business or undertakings
- duty of officers, workers and other persons.

### 3.3.2 Policy and leadership

The SMS description should include an overarching statement relating to the policies and leadership of the operator and reference a current health and safety policy which should also be included as an appendix to the safety case.

### 3.3.3 Compliance with safety case

### WHS PAGEO Regulations r. 29

Compliance with safety case

The SMS description must include a statement to the effect that all workers who engage in an operation do so in accordance with the safety case in force for the operation. This should be supported by a statement that these details are included in a mandatory health and safety induction and training required to be completed by all workers.

### 3.3.4 Implementation and improvement of safety management system

#### WHS PAGEO Regulations r. 33

Implementation and improvement of safety management system

The SMS must include a description and provide details of:

- the operator's SMS and how it is implemented across the organisation
- any certification over the system (AS/ANZ ISO 9001 *Quality management systems – Requirements*, AS/NZS ISO 14001 *Environmental management systems* and AS/NZS ISO 45001 *Occupational health and safety management systems*)
- how the documentation is made available to all workers as and when required
- that there is a system in place for continual and systematic identification of deficiencies in the SMS
- there is continual improvement of the SMS.

For more information, refer to (Sections 3.3.17, 3.3.30 and 3.3.31).

### 3.3.5 Standards to be applied

#### WHS PAGEO Regulations r. 34

Standards to be applied

A list of all Australian and international standards that have been applied, or will be applied in relation to the operation covered by the safety case is required to be included in the SMS. This list must be monitored for any changes in the relevant standards and include details of how changes are managed and put through the management of change process (Section 3.3.4).

### 3.3.6 Sources of information

The operator needs to identify how they maintain regulatory compliance management for the SMS. This should cover an overview of the various areas:

- monitoring for changes in legislation
- monitoring for changes to any of the Australian or international standards used in the operation of the facility
- monitoring relevant chemical database websites for changes in safety data sheet (SDS) content for chemicals used on the facility.

This requirement should be monitored by ongoing internal audits to ensure that only current information is available.

### 3.3.7 Command structure

#### WHS PAGEO Regulations r. 35

##### Command structure

The SMS description must specify the command structure in place for the facility and in particular those positions which may from time to time occupy the role of operator's representative.

This can be done using organisation charts with position titles rather than individual names to maintain the currency of the chart in the event of staff changes. Include details of key health and safety responsibilities for identified management positions, as well as references to internal documentation providing details of accountability and responsibility.

Details of the persons holding office and the overall command structure should be available at all times and readily accessible by any person at the relevant facility.

Also include details of how the offices or positions are continuously held whilst the relevant facility is in operation, i.e. who fills the role if the nominated officer is not available.

For more information, refer to the *Guide: Nomination of an operator*.

### 3.3.8 Competence of workers

#### WHS PAGEO Regulations r. 36

##### Competence of workers

In order to ensure the recruitment of suitably qualified workers, the operator should describe the process for worker selection and who is responsible for this process. Include referenced documents covering the operator's recruitment process, training and competency reviews.

Include reference to the need for industrial certificates and high risk work licences to be held by workers required to perform these tasks and how these are monitored to ensure they are current.

The operator should have in place a process for required corporate and site inductions for all members of the workforce and the requirement for all workers to comply with the safety case.

This SMS section should describe the process for ongoing training requirements for workers covering how these requirements are identified, reviewed and managed. Include requirements for specialist training such as cathodic protection surveys and hazardous areas management, and how changes in training requirements are managed when workers move to new positions.

A reference list of the operator's internal procedures and processes should be included and, where possible, hyperlinked.

For more information, refer to the *Guide: Human factors fundamentals for petroleum and major hazard facility operators*.

### 3.3.9 Involvement of workers and communication

#### WHS PAGEO Regulations r. 38

Involvement of workers

The SMS needs to outline how the operator maintains effective participation and consultative mechanisms that demonstrate the consultation with, and participation of, workers in the development or revision of the safety case, so that workers may reach an informed opinion about the risks and hazards to which they may be exposed at the facility.

Detail methods of communication including pre-start and toolbox meetings, minutes and notice boards. Any relevant internal documents covering these activities should be listed as referenced documents under this section.

For more information, refer to the *Guides: Involvement of workers and Human factors fundamentals for petroleum and major hazard facility operators*.

### 3.3.10 Resources

The SMS should include details of how the operator manages resources for the effective and safe operation of the facility. This may include reference to annual work program reviews and budgets. List referenced internal documents to support this requirement.

Detail how the operator may use contractors and subcontractors, management of those contractors, and verification that contractors' workers are competent in the tasks they are required to perform.

### 3.3.11 Managing risks to health and safety

#### WHS PAGEO Regulations r. 32(4)(d)

Provide for continual and systematic identification of hazards to health and safety of persons in connection with the operation

#### WHS PAGEO Regulations r. 32(4)(f)

Provide for minimisation of risks SFAIRP

The SMS should demonstrate the key methods of hazard identification and risk management. It should be robust and fully detail the characteristics of the risk management system in place including:

- identification of hazards
- management of risks to health and safety
- hierarchy of control measures
- maintenance of control measures
- review of control measures.

*Note: The following wording is an indication only and should not be considered as a standard inclusion in the SMS.*

### **Indication of content detail for hazard identification**

The operator will systematically manage all potential risks to health and safety over the life of the facility and operations. This will involve a process of hazard identification, risk assessment and determination of control measures SFAIRP.

As outlined in the FSA of this safety case, a number of risk assessment processes including HAZIDs, HAZOPs and quantitative risk assessments contribute to hazard identification and risk management. The operator conducts regular operational risk reviews, which result in an update of the facility hazard register, MAEs and performance standards. To meet this objective, the operator:

- developed, implemented and maintains a hazard identification and risk assessment process which results in a prioritised corrective action register
- ensures the hierarchy of controls are used to minimise and manage risks, namely:
  - elimination of hazard at source
  - substitution of materials/process
  - enclosure/isolation of materials/process
  - engineering methods
  - work practices
  - administrative control
  - training/education
  - personal protective equipment
- involves and trains all workers, including subcontractors, in the hazard identification and risk assessment process so that day-to-day hazards are identified and control measures are determined and implemented
- demonstrates that the risk of high or significant hazards is reduced SFAIRP.

It is expected that there will be numerous internal operator documents that will relate to the hazard identification and risk assessment. The document number and title of the document should be listed, with the option to hyperlink, as reference documents under the relevant section.

Following the hazard identification, an assessment of the risk must be completed. The safety case should include details of the risk methodology used and reference the operator's internal documents where relevant.

Note: The following wording is an indication only and should not be considered as a standard inclusion in the SMS.

### Indication of content detail for assessment of risk

Where a hazard is identified, the risk of injury or harm to a person, damage, loss or activity interruption at the facility is assessed.

In assessing the level of risk the following process is carried out:

- identification of all injury, disease or organisational loss potential and consequence
- determination of the actual risk taking into consideration the realistic frequency of potential occurrence, the duration of the event and the loss severity or consequence
- prioritisation of control requirements for identified risks
- matters that are considered include:
  - type of hazard
  - size and layout of the workplace
  - frequency potential of the hazard
  - consequence of injury, damage or loss likely to occur as a result of being exposed to a hazard
  - number of workers, including shift workers, and where they are located (e.g. remote or isolated areas)
  - systems of communication for workers in isolated or remote locations to enable contact for assistance
  - information available on safety data sheets (SDS) or product sheets relating to first aid measures.

Hazards associated with specific tasks are assessed using experienced workers. Each identified hazard is assessed against a risk matrix to obtain a risk ranking. Upon identification that additional control measures need to be implemented to reduce the risk SFAIRP, actions are raised and entered into a database that monitors the progress of work completed so that the additional controls can be implemented against the risk. Once implemented, the control measures are monitored for effectiveness on a regular basis through auditing of operations.

For more information, refer to the *Guides: Hazard identification; Demonstration of risk reduction so far as is reasonably practicable (SFAIRP); Human factors fundamentals for petroleum and major hazard facility operators*; and the *Interpretive guideline: How to determine what is reasonably practicable to meet a health and safety duty*.

### 3.3.12 Health and safety performance targets

#### WHS PAGEO Regulations r. 32(4)(i)

Leading indicators and lagging indicators for health and safety performance

This section should cover objectives and plans for satisfying health and safety performance targets as well as legislative compliance and quality system management. Provide evidence with statistical data demonstrating how these requirements and responsibilities for all aspects of health and safety and management will be met.

The data should include details of positive performance indicators (PPIs) as well as other key performance indicators (KPIs) covering data on lag statistics and describe how the indicators were selected.

These performance targets may relate to high level strategic plans developed by the operator and reviewed periodically. A five-year strategic plan should be reviewed annually to identify achievement of the targets set in the plan, identify new targets and objectives to be set for the forthcoming period and address areas where objectives, plans and performance indicators have not been achieved.

For more information, refer to the *Guide: Health and safety leading and lagging performance indicators*.

#### WHS PAGEO Regulations r. 50

Arrangements for records

### 3.3.13 Records management and document control

The SMS should describe the records management and document control system for all records and documents developed in the course of operating the facility. The regulations require the operator to comply with their safety case document control and record management system.

It should also address the arrangements for records, including security. A concise overview of the methods used should be included in the SMS with reference to the operator's internal processes and procedures for management of these key elements. It should include details of development, review and authorisation of procedures and that records are retained in accordance with an approved retention schedule.

The section should also include details of the address where documents are located and that they are readily available to workers as and when required.

For more information, refer to the *Guide: Records management including document control*.

**WHS PAGEO Regulations r. 39**

Adequacy of design, construction, installation, modification or maintenance

### 3.3.14 Design, construction and commissioning

Management of design of the facility should be covered in this area and briefly outline the design development, resources and responsibility. It should cover the design review and verification during the course of the design development, and the interface between fabricators and operations workers to ensure adequacy of design for fabrication and maintenance purposes. This section should reference key engineering, design, validation and review processes.

The overall design basis documentation for a facility must include the requirements set out in the regulation and should be included in this section of the SMS with document number and title. These details should be cross referenced in the appropriate sections of the Operation Description of the safety case.

If the safety case for a facility is likely to be used for further construction activities on the facility, then there should be an overview of the management of that construction as well as details of how simultaneous operation and construction will be managed.

#### **Indication of content detail for future construction and simultaneous operations (SIMOPS)**

##### **Construction**

Future construction projects at the facility may be conducted under this safety case and SMS.

A suite of project-specific documentation will be developed to support the new construction, including a safety management plan, project-specific emergency response plan, quality plans, audit plans and any other project-specific documentation that is identified as being required. The safety case operation description will be updated to include details of the facility to be constructed and the activities taking place during construction. Upon completion of construction and prior to commissioning the new facility, the operation description will be updated to reflect the operations phase.

During the construction phase, the site will be clearly demarcated and the operator's permit to work system will be utilised to ensure site safety is controlled.

For an offshore facility, any major construction work or the inclusion of an additional vessel will be covered under a separate safety case and, where appropriate, a bridging safety management document between the two safety cases will be developed.

## **Indication of content detail for future construction and simultaneous operations (SIMOPS) (continued)**

### **Simultaneous operation and construction**

Risk associated with simultaneous operation and construction projects shall be identified through risk assessments and any additional procedures or processes associated with these risks will form part of the construction and commissioning procedures.

Where safety systems are identified as being temporarily out of service due to modifications to plant and equipment, the risks associated with any unavailable safety systems shall be identified and procedures included in the construction and commissioning procedures.

*Note: The following wording is an indication only and should not be considered as a standard inclusion in the SMS.*

Details of how commissioning will be achieved for the new construction must be summarised in the SMS and include details of any pre-commissioning requirements. All appropriate records required for the manufacturer's data records (MDR) should be collected into a separate area which can then be passed to operations on handover of the new facility and easily accessed by an independent validator of the project.

Commissioning will include an overview of the stages implemented during commissioning, the commissioning plan and details of all commissioning procedures and processes to be employed. The completed and signed commissioning documents shall be retained using the appropriate records management and document control procedures.

### **3.3.15 Offshore operations – simultaneous operations and bridging documents**

When a separate vessel is involved that has its own safety case, it is important to have a bridging document that covers the management of the simultaneous operations, include details of the risk assessments conducted and any new procedures or processes brought into place for the duration of the SIMOPS.

For more information, refer to the *Guide: Bridging documents and simultaneous operations (SIMOPS)*.

### 3.3.16 Validation

#### WHS PAGEO Regulations r. 67

Validation of proposed operations and proposed significant changes to operations

The safety case should include details of any required validation. The regulator may require the operator to provide a validation:

- upon finalisation of design and prior to construction of a facility
- upon completion of construction and prior to commissioning and operation of a facility
- on any significant change to the facility operations, including decommissioning of a facility.

A validation is a statement in writing by a competent independent person (the validator), in relation to design and construction of the facility.

The WHS PAGEO Regulations provide for the operator and the regulator to agree on the scope of the validation for a proposed facility or significant changes to an existing facility. Prior to the commencement of validation, the operator must prepare a scope of validation to be accepted by the regulator before any instructions are given to the nominated validator.

The scope of validation needs to be appropriate for the activities that will take place for the proposed operation or significant change to an operation and should include details of the proposed validator. The scope of validation should contain evidence of the selection criteria for the validator, their competence and experience in all aspects that are to be validated and their independence.

It is expected that the operator will liaise with the regulator in a timely manner enabling the scope of validation to be agreed, the validation conducted and a report completed and submitted to the regulator to allow acceptance of the safety case. Agreement on the scope of validation may require multiple meetings and discussions to resolve any differences in expectations, especially in the case of more complex operations.

If the operator and regulator cannot reach agreement on the scope of the validation then the operator is unable to complete the validation to allow the regulator to accept the submitted safety case or safety case revision.

The scope of validation should not just be simply a list of identified safety critical elements (SCEs) of the operation to be validated but should contain additional information for the benefit of the regulator and also the proposed validator, examples are shown below.

- An overview of the proposed new operation or significant change to an existing operation (for example decommissioning would be classed as a significant change to an operation) should be a high level overview with consideration being given to the inclusion of a drawing of the layout to aid the regulator and the proposed validator.
- A description of the process used for the identification of the items for validation should be included in the scope.

- Details of the relevant codes and standards should be identified for each SCE. The link between the selected item and the code or standard to be applied should be clearly stated in the scope of validation and each code and standard should be correctly identified by title, reference number and application the version or revision. The operator should include instructions in the scope of validation to the validator to confirm, as part of the validation process, that the codes and standards selected are appropriate for the safety critical systems being validated.
- Relevant safety studies, analysis reports and safety documents that are available should be referenced in the scope of validation and linked to the SCEs identified.
- The scope of validation should include a clearly defined deliverable.

Prior to nomination of a validator, the operator who has provided the material for validation must satisfy the regulator that each person who is proposed to undertake the validation has the necessary competence, ability and access to data to arrive at an independent opinion on the matter being validated.

The completed validation must establish that the design, construction and installation of a proposed facility as well as any proposed significant change to the operation incorporates measures that will protect the health and safety of persons at or in the vicinity of the facility and are consistent with the FSA for the operation.

A copy of the validation statement must be submitted to the regulator by the operator upon receipt from the validator.

For more information, refer to the *Guide: Validation requirements*.

### Offshore facilities – validation requirements

Operators with validation requirements for offshore facilities operating in Commonwealth waters under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*, which also operate in the Western Australian waters under WHS PAGEO Regulations, should refer to the NOPSEMA [Validation guideline](#) for information relating to:

- lifecycle stages
- marine classification certificates
- validation and saturation diving systems
- validation of well testing equipment.

### 3.3.17 Management of change

The SMS should include a section detailing the management of change processes in place for the facility, operations or its management. This section should include an overview of all areas of the operations and facility that may be impacted, such as, changes to:

- legislation
- procedures and processes
- standards
- design of the facility
- operating parameters
- components.

The management of change section of the SMS should outline the methodology for the communication of any changes put in place by any of the above examples and any other areas of change. The SMS must also outline the requirements used to effect the change, its authorisation and implementation, as well as risk assessment of any possible effects the change may have on other areas of the facility.

The management of change system could also contain provision for the suspension of the safety case. The suspension of a safety case may be utilised when a drilling operation becomes inactive for an extended period of time which could impact on the levy calculations for the operation under the Petroleum and Geothermal Energy Safety Levies Regulations 2022. An operator may make an application in writing to the regulator for a suspension of the safety case, detailing the reasons for the application and anticipated duration. If the request to suspend the safety case is granted by the regulator, the operator will need to notify the regulator immediately the drilling operations recommence at which time the suspension will cease and levy calculations will be reactivated (Section 4.10).

The relevant internal documents covering any aspect of change at the facility should be listed and referenced in this section.

For more information, refer to the *Guide: Management of change*.

### 3.3.18 Purchasing and control of materials and services

The operation description covers machinery and equipment installed on a facility. However, under the SMS the operator should have in place purchasing procedures and processes for procurement of goods and services for the operation. The procedures for procurement should contain a requirement for assessment of fit for purpose requirements of any products being purchased and that contractors and subcontractors have suitable processes in place to ensure their products or services meet the health and safety criteria for the operations. The operator should have in place a list of approved suppliers who have been assessed as meeting these requirements.

The SMS should outline the non-compliance procedure for identifying and checking incoming goods that do not meet the requirement of the purchase order raised. For example, demonstrating if goods are returned to the supplier or managed in some other way through the purchasing process.

Relevant procedures and processes that manage procurement should be listed as referenced documents.

### 3.3.19 Permit to work system and safe operating procedures

#### WHS PAGEO Regulations r. 32(4)(c)

Provide for all activities in connection with operation

#### WHS PAGEO Regulations r. 37

Permit to work system for safe performance of various activities

The SMS must include a section on the permit to work system (PTWS) in place and other safe operating procedures for the facility.

The overview of the PTWS should include details of:

- the types/classes of permit to work including hot work and confined space
- who is responsible for generating the permits to work
- who controls the permits to work and how many permits are open, ensuring that workgroups are aware of other open permits in their area of work and that work does not adversely impact other open permits to work
- how long the permits remain in force. Is it for a job taking more than one day or one shift? Is the permit to work closed out at the end of that period or carried over until completion of the job?

Reference to the operator's PTWS must be included in this section, but the full procedure should not be reproduced within the SMS.

Other safe operating procedures which should also be included in this section of the SMS as appropriate, covering:

- welding and other hot work
- cold work including facility isolation/tagging/lock-out system
- electrical work including electrical isolation
- entry into and working in a confined space
- signposting and hazard identification
- waste fuel, lubricants and hazardous chemicals
- naturally occurring radioactive materials
- non-destructive testing with radioactive substances
- procedures for working over water
- safe operation of vessels and aircraft on and around the facility
- a general overview of documentation of work practices for routine, semi-routine and non-routine work instructions and operations procedures
- movement and control of light vehicles and mobile plant.

The operator should reference their internal documents to limit inclusion of too much detail for each of these activities.

### **3.3.20 Materials handling and storage**

The operator should have in place a process and procedures for managing materials handling and storage. It should cover:

- handling and storage of equipment
- packaging and preservation of materials where required
- delivery of equipment
- stock take of spare parts and consumables
- loss, damage or deterioration of goods.

This section may also include the requirement that workers who operate lifting equipment such as cranes and hoists are trained and the process to verify their competency and ensure a process is in place for the monitoring and maintenance of high risk certification.

This section should include evidence that registers are maintained. For example, for all slings, chains and other equipment used for manual handling, that the equipment is tagged with load weighting and checked regularly by trained workers to identify any repairs or maintenance that may be required.

### 3.3.21 Maintenance and repair

#### WHS PAGEO Regulations r. 32(4)(g)

Provide for inspection, testing and maintenance of equipment

This area describes the operator's maintenance management system that is in place to ensure the integrity and reliability of the operations. The maintenance management system should include a list of all plant and equipment located at the facility and the scheduled maintenance requirements applicable under the facility work program.

The maintenance management system should be able to create the required work orders to complete maintenance and repair work and should be supported by various work procedures and work instructions. The operator must ensure that operations workers familiar with the requirement of the machinery and equipment are involved in the development and review of these work program documents.

### 3.3.22 Inspection, testing and monitoring

#### WHS PAGEO Regulations r. 32(4)(g)

Provide for inspection, testing and maintenance of equipment

This SMS section describes the operator's management of inspection, testing and monitoring of machine, plant and equipment especially those elements that have been classified as safety critical elements (SCEs). The section should detail how the maintenance management system satisfactorily manages SCEs by ensuring they are regularly inspected and tested to monitor their application in the event of an emergency.

This section should also include the operator's general inspection, testing and monitoring, and provide an overview of the facility's scheduled and unscheduled requirements. Cover inspection, testing and monitoring of flowlines, pipelines and subsea equipment connected to the facility if they are part of the facility.

Description of the operator's process to determine the frequency of the inspection, testing and monitoring should be included in this section. This process should include periodic reviews to ensure that the inspection schedule is still viable, taking into account the age of the equipment and machinery being checked, and whether or not the schedule should be adjusted to either increase or reduce the frequency based on the age, status and condition of the equipment.

This section should reference the operator's maintenance management system and their planning and scheduling documentation and facility work programs.

### 3.3.23 Integrity management

#### WHS PAGEO Regulations r. 32.4(g)

Provide for inspection, testing and maintenance of equipment

The operator should describe the integrity management plan linked with the maintenance management system to provide an ongoing review of the management and monitoring of the integrity of the facility and if relevant any connected pipelines. This should also demonstrate how the machinery and equipment is deemed to be fit for purpose to perform on a day to day basis and also during an emergency if so required.

This section should include details of the periodic review of the integrity management plan, actions to be taken as a result of the various survey studies that may have been conducted on the facility and other activities that consider the condition of the facility.

Include details of review and highlight areas of the facility where machinery and equipment may be aging and require additional management, including increased testing and inspection, forecasting of possible parts replacement or major overhauls.

This section should reference the integrity management plan document number and full title.

### 3.3.24 Performance standards for safety critical elements

#### WHS PAGEO Regulations r. 32(4)(k)

Performance standards

The operator must describe the process and methodology for the development of performance standards for each of the SCEs that have been listed as controls for the MAEs identified in the FSA.

Cross-reference the performance standards to the relevant MAE and the sections of the operation description and FSA that relate to this requirement. Reference should be made to the relevant procedure covering the development of the performance standards, who is responsible for the development and approval of the performance standards and the system in place for the review and verification that the identified requirements under these standards are still viable.

For more information, refer to the *Guide: Identification of major accident events, control measures and performance standards*.

### 3.3.25 Incident/hazard reporting and investigation

This section should outline the operator's system for incident and hazard reporting and investigation and summarise the system with reference to the internal procedures and processes used.

Details should be included of the management of incidents and near miss occurrences which are considered to be notifiable occurrences and incidents under the WHS Act and the WHS PAGEO Regulations (Section 3.3.26).

All workers, including supervisors, health and safety representatives and managers involved in incident and hazard investigation and reporting, should be trained and competent in this area.

The overview of the system should also include reference to communication of the investigation results to workers and the corrective actions generated to prevent a recurrence of the incident.

For more information, refer to the [Interpretive guideline: Incident notification](#).

### 3.3.26 Notifiable occurrences and incidents

#### WHS Act Part 3

Incident notification

#### WHS Act s. 35

What is a notifiable incident

#### WHS Act s. 36

What is a serious injury or illness

#### WHS Act s. 37

What is a dangerous incident

#### WHS PAGEO Regulations r. 99

Meaning of notifiable occurrence

#### WHS PAGEO Regulations r. 100

Duty to notify of notifiable occurrences

#### WHS PAGEO Regulations r. 101

Incident notification: prescribed serious illnesses

#### WHS PAGEO Regulations r. 105

Dangerous incident [WHS Act s. 37]

The operator's processes and procedures for notifiable incident and dangerous incident reporting must include the requirement for operators to report notifiable occurrences to the regulator. The procedures should include a process that defines what constitutes a notifiable occurrence and details the steps to be followed by operators to notify the regulator within the required time frames.

Registered operators must ensure that the requirements are covered in their internal procedures and that all workers involved in the management of incident and hazard reporting are fully conversant and trained in these requirements.

The procedures should detail as a minimum:

- what is considered a serious injury or illness
- what is considered a dangerous incident
- what is considered a dangerous incident that threatens the health and safety of workers
- management of psychosocial hazards such as stress, fatigue, burnout, bullying, violence and aggression and discrimination
- how to manage the incidents or occurrences internally
- the requirements that must be followed by the operator when notifying the regulator.

**WHS Act s. 39**

Duty to preserve incident sites

The operator must also ensure that the incident site is preserved until such time as an inspector arrives on site or any earlier time that an inspector directs.

For more information, refer to the [Interpretive guideline: Incident notification](#).

### 3.3.27 Workplace environment – managing risks to health and safety

**WHS PAGEO Regulations r. 108**

Duty to identify hazards

**WHS PAGEO Regulations r. 109**

Managing risks to health and safety

**WHS PAGEO Regulations r. 110**

Hierarchy of control measures

**WHS PAGEO Regulations r. 111**

Maintenance of control measures

**WHS PAGEO Regulations r. 112**

Review of control measures

The operator's SMS must include processes and procedures that describe the systems in place required under WHS PAGEO Regulations to manage risks relating to work health and safety and to ensure the maintenance of a healthy and safe working environment at the facility by maintaining:

- high standards of housekeeping cleanliness and hygiene
- systems for preventing and managing psychosocial hazards such as stress, fatigue, burnout, bullying, harassment, violence and aggression, discrimination and misconduct
- monitoring of exposure to vibration, fumes and odours
- limited exposure to hazardous substances
- the operator's smoking policy.

The process required for identification of hazards, managing the risks associated with the hazard, identification and maintenance of the control measures which is covered in detail in Section 3.3.11.

For more information, refer to the [\*Interpretive guideline: How to determine what is reasonably practicable to meet a health and safety duty.\*](#)

### 3.3.27.1 Fatigue management

#### WHS PAGEO Regulations r. 114

Avoiding fatigue

Procedures for fatigue management and maximum hours to be worked under normal conditions must be in place for the facility.

An operator of a facility must not allow or require a worker to work for a period or duration that could reasonably be expected to have an adverse effect on the safety or health of the worker or other persons at or in the vicinity of the facility. This requirement applies to a single continuous period or multiple successive continuous periods.

### 3.3.27.2 Managing risk of hearing loss from noise

#### WHS PAGEO Regulations r. 116

Meaning of exposure standard for noise

#### WHS PAGEO Regulations r. 117

Managing risk of hearing loss from noise

#### WHS PAGEO Regulations r. 118

Audiometric testing

The operator must ensure as far as is reasonably practicable that the noise a worker is exposed to at a workplace does not exceed the exposure standard for noise.

The operator must ensure that there is a process in place for audiometric testing for workers who are frequently required to use personal protective equipment to protect from the risk of hearing loss associated with noise that exceeds the exposure standard for noise. Where this is the case workers should undergo audiometric testing within three months of commencing work and then at least every two years to monitor any hearing loss.

### 3.3.27.3 Managing the risk to health from psychosocial hazards

Psychosocial hazards at work are aspects at work and work situations which may cause psychological harm (whether or not it may also cause physical harm). 'Health' is defined in the WHS Act as physical and psychological health.

Psychosocial hazards can stem from:

- the way the tasks or job are designed, organised, managed and supervised
- tasks or jobs where there are inherent psychosocial hazards and risks
- the equipment, working environment or requirements to undertake duties in physically hazardous environments
- social factors at work, workplace relationships and social interactions.

The operator must have systems in place for preventing and managing psychosocial hazards such as stress, fatigue, burnout, bullying, harassment, violence and aggression, discrimination and misconduct.

For more information, refer to the *Codes of practice: Psychosocial hazards in the workplace; Workplace behaviour and mentally healthy workplaces for fly-in fly-out workers in the construction and resources sector*.

### 3.3.28 Health monitoring systems

Include details of the operator's health monitoring procedures and processes in place for workers, and detail any pre-employment health assessments and subsequent health surveillance programs.

These assessments and health surveillance reports should include details of the audiometric testing requirements outlined in Section 3.3.27.2

Include details of the medical and health assistance available at the facility.

It is recommended that operators have an appropriate procedure to ensure there are detailed records maintained of health assessments and surveillances provided to workers to support this requirement.

### 3.3.29 Drugs and intoxicants

**WHS PAGEO Regulations r. 40**

Medical and pharmaceutical supplies and services

**WHS PAGEO Regulations r. 42**

Drugs and intoxicants

**WHS PAGEO Regulations r. 115**

Possession or control of drugs and intoxicants

A person engaged in an operation must not have possession or control of a controlled substance or an intoxicant.

The operator of the facility must ensure that there is a method in place preventing the use of controlled substances or intoxicants at the facility. The operator must include details of the policy with regards to medication being taken by a worker engaged in the operation including who is responsible for this medication, the need for the operator to ensure the worker notifies their immediate supervisor when they are taking medication which may impact their performance at work.

The operator should include details of any tolerance level of drugs and alcohol that has been determined for the operations and how this is monitored and managed. The operator should have an alcohol and other drugs policy in place that sets out clearly how to address health and safety risks arising from workers impaired by alcohol and drugs. The policy should reflect the health and safety needs of the particular operation.

If the operator has a separate policy covering fitness for work and drug and alcohol this should be referenced and a copy of the policy included as an appendix to the SMS.

### 3.3.30 Safety management system audits

**WHS PAGEO Regulations r. 32(4)(l)**

Provide for a system of auditing the effectiveness of the safety management system

**WHS PAGEO Regulations r. 33**

Implementation and improvement of safety management system

This is a key element of the SMS and operators should have an audit system in place that is clear, objective and evidence-based to show outsiders that the operator conforms to the SMS. It is one of the main focus areas for inspectors.

The operator must demonstrate that they have ensured the implementation of the SMS and there is a continual and systematic identification of deficiencies in, and improvement of, the system. Therefore, the operator's audit of the SMS requirements should measure its effectiveness, and identify ways to improve it, and any deficiencies that need rectifying.

This section should detail the audit process, including the existence of an audit plan outlining the methodology by which the operator will conduct internal or external audits. This requirement should include details of auditor independence requirements for the areas being audited and the qualifications of the auditor.

Details of the management of non-compliance areas identified during the audit, how actions are generated to address the non-compliance and the monitoring of the actions through to effective closure should also be included.

For more information, refer to the *Guide: Audits, review and continual improvement*.

### 3.3.31 Review and continual improvement

#### WHS PAGEO Regulations r. 33

Implementation and improvement of safety management system

The operator should include details of systems and processes that will be reviewed, how and when the review will take place and the results.

The results of the review should be documented and be formally communicated to management to provide continual improvement to the SMS. These actions may be through identification of new objectives and targets, ongoing audits and the closeout of actions generated from audit reports and incident investigations.

The areas of audit and review/continual improvement are important elements of the safety case and should focus on:

- ensuring compliance
- identification and management of continual improvement.

These areas of the safety case should be robust, comprehensive and continuous. As a guide to assist development of the safety case, operators should take into account that the regulator will be inspecting against the safety case to ensure compliance and improvement. A principal means of achieving this will be to ask the operator how they ensure they are doing what they said they would do in the safety case. It is important that details contained within the safety case are comprehensive and concise.

Operators should ensure that they have a process in place to regularly verify that their audit and review/continual improvement requirements are managed effectively. Where an inspector's findings identify issues with the operator's systems, questions will be raised as to why these issues were not already identified and corrected by the operator's audits, review and continual improvement requirements.

For more information, refer to the *Guide: Audits, review and continual improvement*.

## 3.4 Formal safety assessment

WHS PAGEO Regulations r. 32(3)  
Formal safety assessment

The FSA description must summarise the risk assessments undertaken in sufficient detail to provide evidence that the requirements have been addressed. This section of the safety case should therefore include a comprehensive summary of the assessments, analyses and results that have been documented as part of the FSA.

It is expected that the detailed description should provide sufficient information to demonstrate that the FSA has identified all MAEs, systematically assessed the associated hazards and implemented adequate control measures to reduce the risks SFAIRP.

### 3.4.1 Purpose

The FSA description must include a brief overview of the purpose to identify as broad a range of hazards and assessed risks as possible using appropriate hazard identification techniques and risk assessment methodologies.

### 3.4.2 Scope

The scope should reference the operation covered by the FSA and the types of risks covered in the assessment process including loss of integrity on the operation, including wells, work activities in connection with operation and work environment.

### 3.4.3 Objective

The FSA description must include a summary of the objectives.

The following wording is an indication only and should not be considered as a standard inclusion in the FSA.

#### **Indication of content detail for objective section of formal safety assessment**

The objectives of the risk assessment processes comprising the FSA are to:

- identify all potential threats to the integrity of the petroleum or geothermal energy operation
- identify all potential hazards associated with the operation and maintenance of the petroleum or geothermal energy operation
- document existing risk controls for the identified hazards
- estimate intrinsic and current (residual) risk levels for the identified hazards
- establish a risk profile for the integrity of the operation and for the critical tasks involved in the maintenance of the operations and use this for the subsequent development of risk control strategies/safety plans
- conduct an assessment on the potential for any MAE, as “an event connected with a facility, including a natural event, having the potential to cause multiple fatalities of persons at or in the vicinity of the facility”
- demonstrate that the processes adopted for the operation have reduced the risk SFAIRP.

The objective of the FSA is to demonstrate that:

- the operator has in place a risk tolerability criteria against which all risks have been assessed and reduced SFAIRP. Details of the procedures and processes in place to achieve tolerability should be included as a reference
- all major hazards have been identified, and those that pose particular risk to the workers, other persons (public) and/or the operation have been assessed
- the control, mitigation and recovery measures that have been or will be put in place to manage the risks are adequate and effective
- the risks have been reduced to a level that is tolerable.

The consequences of the risks considered include the:

- impact on fitness for purpose of the operation
- impact on the health of workers
- potential for worker injury or fatality.

### 3.4.4 Methodology

#### WHS PAGEO Regulations r. 32(3)(e)

Demonstrate that methodologies in FSA are appropriate and adequate

This section should describe the safety case FSA methodology, including:

- risk assessment process – this should cover the approach taken to accurately identify all hazards and risks relating to the operation, its maintenance, the types of assessment employed (e.g. qualitative, semi-quantitative, quantitative or facility integrity assessments) and the associated controls to reduce the level of risk SFAIRP
- participation in the FSA process – outline the participants identified to attend risk assessment workshops based on their level of experience, competence and involvement in the operations. This should include a broad range of worker participation to ensure adequate levels of consultation and communication which is an essential part of the risk management process
- workshop facilitation – provide an overview of who facilitates the risk assessment workshops and their selection based on industry experience and competency
- risk analysis and evaluation – include details of the analysis and evaluation process undertaken, including reference to the risk matrix used, a copy of which should be included as an appendix to the safety case.

### 3.4.5 Major accident events

#### WHS PAGEO Regulations r. 32(3)(b)

Potential major accident events

The FSA must include the likelihood and consequences of an MAE. This section should list the identified MAEs for the operations and include details of the intrinsic risk levels, the controls that have been applied and the residual risk levels are reduced SFAIRP.

This section of the FSA should be cross-referenced to the section in the operation description and SMS covering the performance standards developed for each of the safety critical elements identified as controls for the MAEs.

For more information, refer to the *Guide: Identification of major accident events, control measures and performance standards*.

### 3.4.6 Safety critical elements and bowtie diagrams

#### WHS PAGEO Regulations r. 32(3)(c)

Identify safety critical elements

The FSA description must summarise all of the technical and other control measures that the operator has identified to prevent, detect, control and mitigate MAEs. Each of these control measures is considered an SCE. Include a summary of the SCEs and a link to their performance standards as described in the SMS (summarised in the operation description).

Consideration should be given to inclusion of a reference to any well management plans that have been developed and accepted by the regulator as these plans will include safety measures installed for the wells, acting as a mitigating control for identified MAEs on any of the wells within the operations.

The functional SMS developed in relation to the safety instrumented systems installed on the operations should be referenced as a mitigating control identifying the shutdown and redundancy equipment installed in the operations.

Bowtie diagrams displaying each MAE with the associated preventive and mitigating controls in place is the preferred method to assist in summarising the associated SCEs. Inclusion of the bowtie diagrams is usually attached as an appendix to the FSA.

### 3.4.7 Demonstration of risk reduction so far as is reasonably practicable

#### WHS PAGEO Regulations r. 32(3)(d)

Demonstrate risks are minimised so far as is reasonably practicable

The FSA must demonstrate that the operator has reduced the risks associated with identified MAEs so far as is reasonably practicable.

This should include a detailed description of the necessary prevention, detection, control and mitigation measures implemented. Where relevant, include a technical argument as to why it is not reasonably practicable to implement further control and mitigation measures.

For more information, refer to the *Guide: Demonstration of risk reduction so far as is reasonably practicable (SFAIRP)*.

### 3.4.8 Summary of risk assessment studies

The FSA should include a summary of each of the workshops completed as part of the FSA methodology.

Each summary should include:

- the title of the risk assessment workshop conducted on the operations
- details of the facilitator
- the location and date of the workshop
- the results of the workshop including details of the number of actions raised and any MAEs identified
- details of the risk assessment report (document number and title) and that it is available for review by the regulator upon request.

During a five-yearly review the FSA should be reviewed and updated to reflect:

- any risk assessments conducted since the last five yearly review
- update of previous risk assessments as to current status of any actions that were still outstanding when first entered into the FSA
- update of the HAZOP conducted
- details of the AS 2885 safety management study where relevant.

For more information, refer to the *Guides: Hazard identification and Risk assessment and management including operational risk assessment*.

## 3.5 Emergency response

WHS PAGEO Regulations r. 32(1)(d)  
Emergency response plan

Under the WHS PAGEO Regulations, the emergency response requirements must be documented in a separate section of the safety case, rather than being included as part of the SMS. The following sections cover the information that should be included in the section on emergency response.

### 3.5.1 Emergency preparedness

WHS PAGEO Regulations r. 40  
Medical and pharmaceutical supplies and services

WHS PAGEO Regulations r. 46  
Emergency preparedness

The safety case for an operation must include a description and the implementation of the ERP.

The ERP must describe the response to the emergency risks that the operator has identified in their formal safety case assessment and should also include a list of possible scenarios that could result in its implementation.

The operator should demonstrate that all requirements listed in the WHS PAGEO Regulations are included in the ERP:

- emergency response roles and responsibilities have been documented within the ERP and there is a description of the chain of command for emergencies
- emergency response training is conducted for all workers
- emergency response drills and exercises are scheduled, conducted and reports generated on the results
- emergency response equipment is readily available and fit-for-purpose, a schedule for inspection and testing of emergency equipment is in force, there is a suitable redundancy of equipment for backup purposes in the event of equipment failure.

The operator should list all internal referenced documents where critical information is contained.

This section of the safety case should cross-reference sections of the operation description, SMS and FSA, where appropriate.

For more information, refer to the *Guide: Emergency response planning*.

### 3.5.2 Emergency analyses

WHS PAGEO Regulations r. 43  
Emergency analyses

The operator must include details of:

- the evacuation, escape and rescue analysis
- the fire and explosion risk analysis

that have been conducted for the facility.

### 3.5.3 Evacuation, escape and rescue analysis

WHS PAGEO Regulations r. 52  
Evacuation, escape and rescue analysis

The operator must conduct an evacuation, escape and rescue analysis (EERA) before submitting the safety case for review and acceptance by the regulator. A detailed description of the EERA should be summarised in the safety case and the analysis must:

- identify the types of emergency that could arise at each relevant facility
- consider a range of routes for evacuation and escape of persons at each relevant facility in the event of an emergency
- consider alternative routes for evacuation and escape if a primary route is not freely passable
- consider different possible procedures for managing evacuation, escape and rescue in the event of an emergency
- consider a range of means of, and equipment for, evacuation, escape and rescue in the event of an emergency
- consider a range of amenities and means of emergency communication to be provided in a temporary refuge
- for offshore facilities – consider a range of life saving equipment, including
  - life rafts to accommodate safely the maximum number of persons that are likely to be at each relevant facility at any time
  - equipment to enable that number of persons to obtain access to the life rafts after launching and deployment
  - in the case of a floating facility, suitable equipment to provide a float-free capability and a means of launching
- identify technical and other control measures necessary to minimise the risks associated with emergencies so far as is reasonably practicable.

The document number and title of the EERA should be recorded as well as specific operator internal documents and any Australian or international standards utilised for the analysis. If requested, the operator must provide the regulator with a full copy of the EERA analysis.

This section should cross-reference any other areas in the operations description or FSA referring to the EERA within emergency response.

### 3.5.4 Fire and explosion risk analysis

WHS PAGEO Regulations r. 53  
Fire and explosion risk analysis

The operator must conduct a fire and explosion risk analysis (FERA) before submitting the safety case for review and acceptance by the regulator. A detailed description of the FERA should be summarised in the safety case and the FERA must:

- identify the types of fire and explosion that can occur at each relevant facility
- consider a range of measures for detecting those fires and explosions in the event that they do occur
- consider a range of measures for eliminating those potential fires and explosions, or for otherwise reducing the risk arising from fires and explosions
- consider the incorporation into each relevant facility of both automatic and manual systems for detection, control and extinguishment of:
  - outbreaks of fire
  - leaks or escapes of petroleum
- consider a range of means of isolating and safely storing hazardous substances, such as fuel, explosives and chemicals, that are used or stored at each relevant facility
- consider the EERA to the extent that it relates to fires and explosions
- identify, as a result of the considerations the technical and other control measures necessary to minimise the risks associated with fires and explosions so far as is reasonably practicable
- the conclusion reached during the FERA and any additional control measures that were identified that have been or need to be put in place on the operation.

Reference should be included to the document number and title of the FERA conducted which will have full details of the items listed above as well as specific operator internal documents and any Australian or international standards used for the analysis. This section should cross-reference any other areas in SMS or FSA referring to the FERA.

The operator must make the FERA available to the regulator upon request.

### 3.5.5 Emergency communications systems

WHS PAGEO Regulations r. 44  
Emergency communications systems

The safety case must include details of the communications systems in place and that in the event of an emergency these are adequate for communication both within the facility and between the facility and appropriate onshore installations, appropriate vessels and aircraft, and any other appropriate facilities.

Demonstrate that the communications in place are adequate to handle any likely emergency relating to the facility and the operations requirements of the facility.

### 3.5.6 Emergency control systems

WHS PAGEO Regulations r. 45  
Control systems

The safety case for an operation must include details of control systems in place for the operation in the event of an emergency covering:

- backup power supply
- lighting
- alarm systems
- ballast control
- emergency shut-down systems.

# 4 Submission and assessment of the safety case

## 4.1 Overview of submission process

This section outlines the process for submission and acceptance of the safety case including submission, decision points, acceptance or rejection, revision and suspension. Figure 1 provides an overview of the steps in the submission process, while Figure 2 depicts the timelines for the submission of new and revised safety cases.

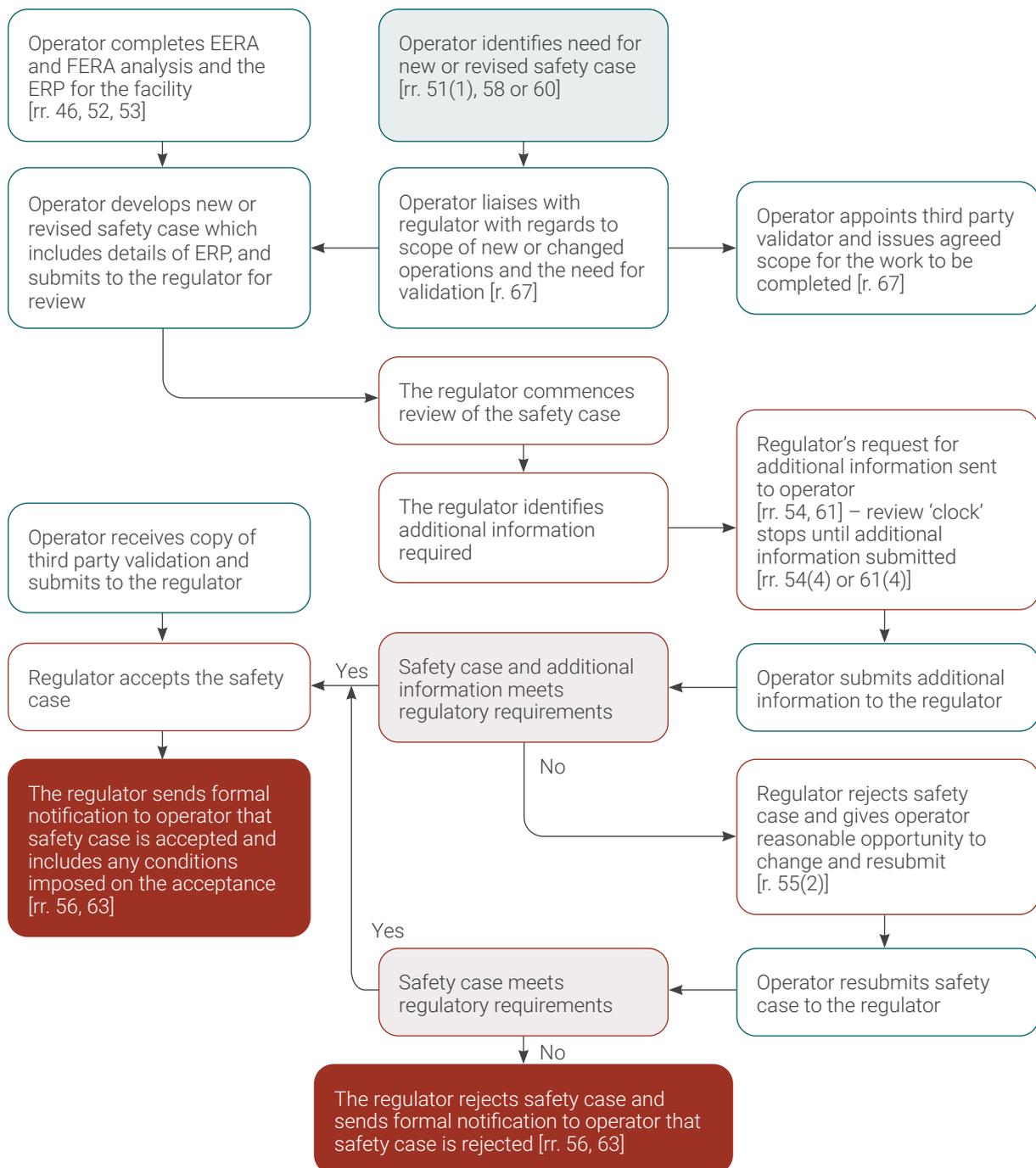


Figure 1 PAGEO safety case submission flow chart

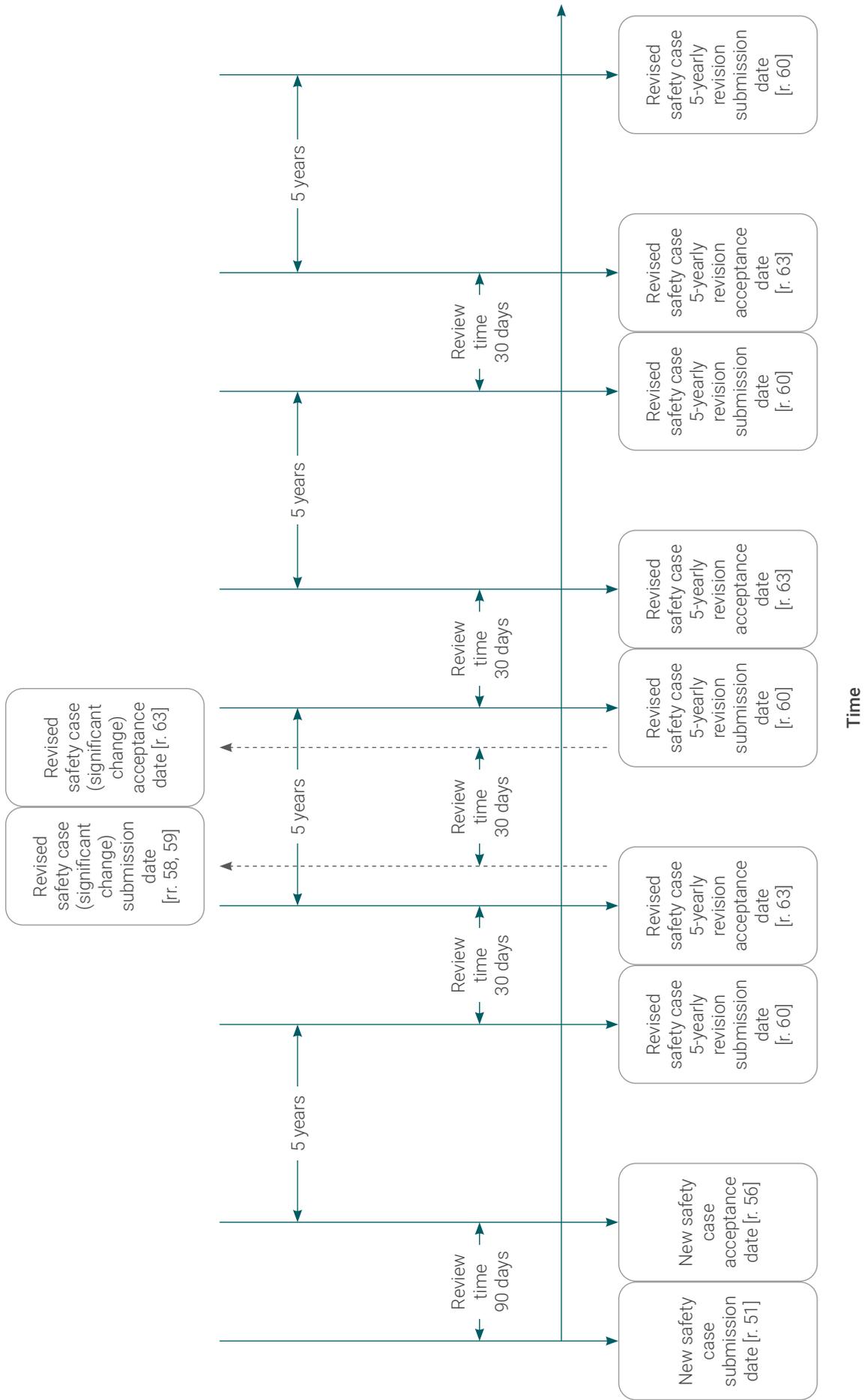


Figure 2 New and revised safety case submission timelines

## 4.2 Safety case to be submitted to regulator

WHS PAGEO Regulations r. 51  
Safety case to be submitted to regulator

WHS PAGEO Regulations r. 67  
Validation

Acceptance of a safety case means that the regulator considers that it demonstrates the operator's commitment to operate the relevant facilities in a manner that satisfies their legislative duties and/or other legislative requirements. It does not mean:

- it is safe to follow the safety case irrespective of the circumstances around the activity that may indicate further risk assessment is necessary
- the regulator indemnifies the operator for any incident or liability or breach of the legislation.

The safety case is the operator's document that reflects their commitment to comply with the legislation. The operator remains responsible for all risks.

Prior to submitting a safety case for assessment, the operator needs to liaise with the regulator on any requirements for validation. Where validation is required, it is important that the scope of the validation is agreed between the operator and the regulator prior to instructions being given to a third party validator (Section 3.3.16).

An operator cannot submit a safety case for review and acceptance by the regulator without conducting an evacuation, escape and rescue analysis and a fire and explosion risk analysis. Details of these analyses must be summarised in the safety case to be submitted (Section 3.5.3 and Section 3.5.4).

The submission of a safety case must also include the ERP for the relevant facility.

### 4.3 Request for additional information

WHS PAGEO Regulations r. 54

Regulator may request more information

WHS PAGEO Regulations r. 61

Regulator may request more information

The regulator may request more information in relation to the safety case submitted for review and acceptance.

Requests for any additional information must be made in writing by the regulator and specify a period of not less than 30 days within which time the information must be provided. The additional information provided by the operator becomes part of the safety case that was initially submitted for review and acceptance.

Operators should note that if additional information is requested the 90 day time limit for the regulator's notice of the decision is suspended until the operator provides the requested information. For example, if the regulator sends a request for additional information 20 days after the operator's initial safety case submission then the count on the remaining 70 days of the assessment period will recommence after the regulator has received the required information. The same will apply to a revised safety case time limit of 30 days.

If an operator is requested to provide additional information for a revised safety case, the request must be made in writing by the regulator and specify a period of not less than 10 days within which the information is to be provided.

### 4.4 Acceptance or rejection of a safety case

WHS PAGEO Regulations r. 55

Acceptance or rejection of safety case

The regulator must accept a safety case if satisfied it is compliant with the regulation requirements and, if required, the requested validation has been provided. The regulator may impose conditions on the acceptance regarding the facility operations.

If the regulator is not satisfied that a submitted safety case meets the requirements for acceptance and rejects the safety case, the regulator must give the operator a reasonable opportunity to change and resubmit the safety case.

The regulator must reject a resubmitted safety case if the operator has had a reasonable opportunity to change and resubmit the safety case, and if the regulator is not satisfied the resubmitted safety case meets the requirements for acceptance.

## 4.5 Notice of decision on safety case

WHS PAGEO Regulations r. 56  
Notice of decision on safety case

The regulator must provide the operator with written notice of, and reasons for, their decision on a safety case submitted or resubmitted within 90 days after receiving the safety case.

The regulator must notify the operator in writing if they are unable to provide a decision to the operator within 90 days and provide the operator with a proposed timetable for their consideration of the safety case.

If the submitted safety case covers more than one prescribed facility, then the regulator may partially accept the safety case. For example, if a safety case is submitted for two activities the regulator may accept the safety case for activity one and reject it for activity two. The regulator may also impose conditions on the acceptance of the safety case.

## 4.6 Revision of a safety case

WHS PAGEO Regulations r. 58  
Revision because of change of circumstances or operations

WHS PAGEO Regulations r. 59  
Revision on regulator's request

The WHS PAGEO Regulations prescribe the circumstances that trigger the revision of a safety case.

An operator must update the safety case in force as soon as practicable after identifying a change of circumstances or operations as outlined in the WHS PAGEO Regulations. If the operator is required to submit a revised safety case because there is a proposed significant change to, or decommissioning of, a relevant facility, the operator must not submit the revised safety case until the operator and the regulator have agreed on the scope of any validation that may be required to be provided in regard to the proposed changes. If the regulator agrees, the operator may submit a revised safety case in the form of part of the safety case in force for the operation.

This is the arrangement for a bridging document or addendum. The bridging document or addendum submitted to the regulator is actually a revision of part of the "main" safety case. The bridging or addendum document must be submitted under regulation 58.

It is usually the intention of the regulator that only the aspects of the safety case that have been revised due to the change in circumstances or operations or that the regulator has requested will be assessed in the submission, there is no intention to re-assess the entire safety case as if it were a new document.

The regulator may request that the operator engaging in operations for which a safety case is in force to submit a revised safety case. The request by the regulator must be in writing and provide details of the matters to be revised, the time in which the operator must complete the revision, and the regulator's reasons for the request.

On receipt of the revision notice the operator may submit an opinion in writing within 21 days (or longer at the regulator's discretion) why the revision is unnecessary, and/or to vary the date or terms proposed by the regulator. The operator must provide reasons for their opinion.

The regulator must provide written notice of, and reasons for, their decision on the operator's submission within 28 days. The operator must revise their safety case in accordance with the revision notice as originally received or as varied by the regulator.

## 4.7 Revision after five years

**WHS PAGEO Regulations r. 60**

Revision after 5 years

**WHS PAGEO Regulations r. 63**

Notice of decision on revised safety case

The operator must revise and resubmit their safety case every five years after the initial acceptance, regardless of any other revisions and acceptances because of facility or operational modifications and/or at the regulator's request.

It is the intention of the regulator to assess five-yearly revisions in their entirety, as if they were new safety cases, as opposed to revisions due to a change in circumstances or operations or at the regulator's request.

Operators should have in place a process to track this five-yearly requirement as there will be no reminders sent from the regulator.

Figure 2 depicts the required intervals for five-yearly submissions regardless of the number of times the safety case may have been updated to reflect significant changes to operations.

The regulator must provide the operator with written notice of their decision on their revised safety case submission within 30 days.

The regulator must notify the operator in writing if they are unable to make a decision within the 30 days, and provide a proposed timetable for the consideration of the revised safety case.

## 4.8 Rejection of a revised safety case

WHS PAGEO Regulations r. 64  
Effect of rejection of revised safety case

If the decision of the regulator is to reject a revised safety case, then the safety case in force immediately before the revised safety case was submitted remains in force subject to the WHS PAGEO Regulations as if the revised safety case had not been submitted.

## 4.9 Withdrawal of acceptance of a safety case

WHS PAGEO Regulations r. 65  
Grounds for withdrawal of acceptance

WHS PAGEO Regulations r. 66  
Notice before withdrawal of acceptance

The regulator may, by written notice to an operator, withdraw acceptance of the safety case for an operation on any of the following grounds:

- the operator has not complied with:
  - the WHS Act, or
  - a notice issued by an inspector under the WHS Act Part 10, or
  - WHS PAGEO regulations rr. 65 and 66
- the regulator has rejected a revised safety case.

The written notice of withdrawal of acceptance is given to the operator and any other persons the regulator thinks fit. The notice must contain a statement as to the reasons for the decision. Before withdrawing the acceptance of a safety case for an operation, the regulator must give the operator at least 30 days' notice in writing of the regulator's intention to withdraw the acceptance.

The regulator must specify in the notice a date on or before which the operator (or other person to whom a copy of the notice has been given) may submit to the regulator, in writing, any matters that the regulator should take into account when deciding whether to withdraw the acceptance.

The regulator must take into account any actions taken by the operator or other persons to correct the non-compliances referred to in the notice to withdraw and any proposed actions to prevent any further non-compliance.

In the event that the regulator proceeds with the withdrawal of acceptance of a safety case, the operator is unable to undertake any work on the facility or operations covered by the relevant safety case until such time as a revised safety case has been submitted and accepted by the regulator.

## 4.10 Suspension of a safety case

WHS PAGEO Regulations r. 119

Application for suspension

WHS PAGEO Regulations r. 120

Form of application

WHS PAGEO Regulations r. 121

Regulator may seek further information

WHS PAGEO Regulations r. 122

Grant or refusal of suspension

WHS PAGEO Regulations r. 123

Notice of decision on application

WHS PAGEO Regulations r. 125

Duration of suspension

An operator can apply to the regulator for the suspension of a safety case in force.

Suspension allows the operator to “switch on and off” their safety case during periods of inactivity without having to withdraw the safety case at the start of the period and resubmit a new safety case at the recommencement of operations. It also allows the regulator to pause surveillance activities as well as adjust the charging of the safety levy under the Petroleum and Geothermal Energy Safety Levies Regulations 2022.

It is essential to understand that if a safety case is suspended, no operations within the scope of the suspended safety case can be conducted. Further, a safety case cannot be partially suspended (e.g. certain details within the safety case cannot be suspended while the remainder remains active). The operation cannot resume until the suspension is revoked and the safety case is reactivated.

Operators should note that a facility in care and maintenance does not equate to the facility being inactive. For the facility to be classed as inactive, there must not be any petroleum or geothermal energy operation related activities taking place at all on the facility. Accurate classification of the facility as active or inactive is critical for the correct application of the safety case and operators should have a system in place within their SMS to accurately record the changes between active and inactive (Section 3.3.17).

Suspension of a safety case will most likely be related to offshore facilities that may spend time classed as inactive or stacked or travel outside of WA waters. Suspension should only be considered temporary and last for short periods.

This application for suspension must be made in writing and set out the particular date the operator wants to suspend the safety case and how long the period of suspension is likely to last. The operator must set out the reasons why they want the safety case suspended. It is important that the operator can justify why there will be no activity and how the operator will ensure that no activity takes place during the period of suspension. The operator should also provide a detailed explanation of how the facility itself as well as the people, processes and data used with the facility will be recovered back from the period of suspension to an appropriate state ready to allow safe operations.

The regulator may request further information from the operator to support the application for suspension. Once all information is received, the regulator must make a decision within 30 days after receipt of the application, this may be extended by up to 14 days subject to agreement with the applicant. The regulator is taken to have refused to grant a suspension if no decision is made within the relevant period or within the extended period.

The notice of the decision on the application must be given by the regulator in writing within 7 days of making the decision. In the event that the regulator decides to refuse the application for suspension the written notice must include the reasons for that decision.

#### 4.10.1 Revocation of suspension of the safety case

WHS PAGEO Regulations r. 124  
Revocation of suspension

When activities are expected to resume on the facility, the operator should make an application in writing to the regulator requesting the revocation of the suspension of the safety case stating the dates on which activities are likely to recommence. The regulator may, by written notice, revoke the suspension of the safety case if the regulator is:

- satisfied the applicant will be carrying out operations on and from a particular day, or
- otherwise satisfied that it is appropriate to do so in the circumstances of the particular case.

The revocation has effect on and from the day specified in the revocation notice.

A suspension granted under the WHS PAGEO Regulations remains in effect on and from the day specified in the suspension notice until it is revoked.

Upon recommencement of operations, the operator will be required to advise the regulator that the activities have recommenced, that all operations conform to the safety case, the facility complies with the safety case and that all relevant workers are appropriately trained and familiar with the requirements described in the safety case.

## 4.11 Consent to undertake activities in a manner different from safety case requirements

WHS PAGEO Regulations r. 57

Consent to undertake activities in manner different from safety case requirements

The regulator may consent in writing to the operator undertaking operations in a manner that is different to the requirements described in the safety case in force, if the regulator is satisfied that the proposed manner of the activity will not result in, or be likely to result in, a significant new or increased risk to safety and health at the facility.

The consent may be given subject to the terms and conditions specified by the regulator in the written consent. This would only occur in unforeseen emergency situations and it would usually be preferable to revise the safety case.

# Appendix 1 Relevant legislation

## Current

*Petroleum and Geothermal Energy Resources Act 1967*

*Petroleum and Geothermal Energy Safety Levies Act 2011*

Petroleum and Geothermal Energy Safety Levies Regulations 2022

*Petroleum (Submerged Lands) Act 1982*

*Petroleum Pipelines Act 1969*

*Work Health and Safety Act 2020*

Work Health and Safety (General) Regulations 2022

Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022

## Repealed

Petroleum and Geothermal Energy Resources (Management of Safety) Regulations 2010

Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations 2007

Petroleum (Submerged Lands) (Pipelines) Regulations 2007

Petroleum (Submerged Lands) (Diving Safety) Regulations 2007

Petroleum Pipelines (Management of Safety of Pipeline Operations) Regulations 2010

## Appendix 2 Glossary and acronyms

The following terms are defined for the purposes of this Interpretive guideline.

Key terms	Meaning
Competent person	Competent person is defined as a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task
Controlled substance	Means a drug listed in Schedule 8 of the Customs (Prohibited Exports) Regulations 1958 or Schedule 4 of the Customs (Prohibited Imports) Regulations 1956
EERA	Evacuation, escape and rescue analysis
ERP	Emergency response plan
Facility	<p><b>Geothermal energy facility</b> – a place at which geothermal energy operations are carried out and includes any fixture, fitting, plant or structure at the place</p> <p><b>Petroleum facility</b> – a place at which petroleum operations are carried out and includes any fixture, fitting, plant or structure at the place</p> <p><b>Mobile facility</b> – includes an onshore drilling rig</p>
FDC	Facility design case
FERA	Fire and explosion risk analysis
FMEA	Failure mode effects analysis
FSA	Formal safety assessment
Geothermal energy operation	<p>Means an operation to:</p> <ul style="list-style-type: none"> <li>• explore for geothermal energy resources</li> <li>• drill for geothermal energy resources</li> <li>• recover geothermal energy</li> <li>• or is any other kind of operation that is prescribed by the regulations to be a geothermal energy operation for the purpose of this definition</li> </ul> <p>and carry on of such operations and the execution of such works as are necessary for that purpose</p>
HAZAN	Hazard analysis
HAZID	Hazard identification study
HAZOP	Hazard and operability study
Inspector	WorkSafe Petroleum Safety inspector
Intoxicant	A beverage or other substance for human consumption that contains alcohol; but does not include a substance for medical or pharmaceutical use
KPI	Key performance indicators

Key terms	Meaning
LOC	Loss of containment
LOPA	Layers of protection analysis
MAE	Major accident events – an event connected with a facility, including a natural event, having the potential to cause multiple fatalities of persons engaged at or in the vicinity of the facility
MDR	Manufacturer's data record
Nominator	<ul style="list-style-type: none"> <li>• A person who is an owner, charterer or lessee of the facility; or</li> <li>• A person who holds a petroleum title or geothermal title; or</li> <li>• A person approved under section 13(1) of the <i>Barrow Island Act 2003</i> by the relevant Minister</li> </ul> <p>who nominates a person to be the operator of a facility</p>
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
Operator	A person who has, or will have, the day-to-day management and control of operations at a facility and is registered as the operator of the facility under r. 22(3)
Operator's representative	A person who is present at the facility when in operation who has day-to-day management and control of the operation under r. 24
Performance standard	A standard established by the operator defining the performance required for a safety critical element typically defining the functionality, availability, reliability, survivability and interdependency of the safety critical element
Person conducting a business or undertaking (PCBU)	A PCBU is an umbrella concept capturing all types of working arrangements or relationships. A PCBU includes a company, unincorporated body or association and sole trader or self-employed person. Individuals who are in a partnership that is conducting a business will individually and collectively be a PCBU. A reference to a PCBU includes reference to the operator of a facility.
Petroleum operation	Means an activity that is carried out in an area in respect of which a petroleum title is in force, or that is carried out in an adjacent area, for the purpose of any of the following: <ul style="list-style-type: none"> <li>• exploring for petroleum</li> <li>• drilling or servicing a well for petroleum</li> <li>• extracting or recovering petroleum</li> <li>• injecting petroleum into a natural underground reservoir</li> <li>• processing petroleum</li> <li>• handling or storing petroleum</li> <li>• the piped conveyance or offloading of petroleum.</li> </ul>
Pipeline	A pipeline licensed under the <i>Petroleum Pipelines Act 1969</i> as amended or under the <i>Petroleum (Submerged Lands) Act 1982</i> as amended

Key terms	Meaning
PPI	Positive performance indicators
PTWS	Permit to work system
QRA	Quantitative risk assessment
Safety case	Documented provisions related to the health and safety of people at or in the vicinity of a facility, including identification of hazards and assessment of risks; control measures to eliminate or manage hazards and risks; monitoring, audit review and continual improvement
Safety critical element (SCE)	Any item of equipment, system, process, procedure or other control measure the failure of which can contribute to an MAE
SDS	Safety data sheet
SFAIRP	So far as is reasonably practicable
SME	Subject matter expert
SMS	Safety management system
Validation	A statement in writing by an independent person in respect of the design, construction and installation of a facility, that complies with r. 67
WHS Act	<i>Work Health and Safety Act 2020</i>
WHS PAGEO Regulations	Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022
Worker	Any person who carries out work for a person conducting a business or undertaking (PCBU), including work as an employee, contractor or subcontractor (or their employee), self-employed person, outworker, apprentice or trainee, work experience student, employee of a labour hire company placed with a 'host employer' or a volunteer
Workshops	Consultation with workers and relevant subject matter experts on assessment of identified risks and control measures in place for a facility or operation

# Appendix 3 Compliance checklist

## Compliance checklist for safety cases

Note: this checklist may be used as a self-assessment tool by operators to verify that their safety case documentation has addressed all the required elements of the legislation.

Regulation	Guide section	Topic	Safety case section	Page #
Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022				
Part 2 – Petroleum and geothermal energy operations				
Division 3 – Facility design cases				
r. 25	1.1	Submission of a facility design case		
Division 4 – Safety cases				
Subdivision 2 – Duties as to safety cases				
r. 27	1	Safety case required for operations		
r. 28	1	New or increased risks		
r. 29	2.9, 3.3.3	Compliance with safety case		
r. 30	2.9, 3.3.1	Persons to comply to safety case		
r. 31	2.8	Maintaining records for safety case		
Subdivision 3 – Contents of safety cases				
r. 32(1)(a-d)	3.1.1	Operation description, formal safety assessment, safety management system and emergency response plan		
r. 32(2)(a-j)	3.2.1	Facility overview		
	3.2.2	Facility layout		
	3.2.3	Machinery and equipment		
	3.2.4	Design, control systems, structural integrity and safety critical elements		
	3.2.5	Emergency response		
	3.2.6	Offshore operations - Pipelines		
	3.2.7	Offshore operations – Vessels and aircraft		
	3.2.8	Onshore operations – drilling and wellsite equipment		
	3.2.9	Major accident events, safety critical elements and performance standards		
	3.2.10	Provision of drawings		
r. 32(3)(a)	3.4.1, 3.4.2, 3.4.3	Purpose, scope and objective of FSA		
r. 32(3)(b)	3.4.5	Major accident events		

Regulation	Guide section	Topic	Safety case section	Page #
Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022				
r. 32(3)(c)	3.4.6	Safety critical elements and bowtie diagrams		
r. 32(3)(d)	3.4.7	Demonstration of risk reduction SFAIRP		
r. 32(3)(e)	3.4.4	Methodology		
	3.4.8	Summary of risk assessment studies		
r. 32(4)(a)	3.3.1	General requirements		
r. 32(4)(b)	3.3.2	Policy and leadership		
r. 32(4)(c)	3.3.19	Permit to work system for safe performance of various activities		
r. 32(4)(d)	3.3.11	Managing risks to health and safety		
r. 32(4)(e)	3.3.25	Incident/hazard reporting and investigation		
r. 32(4)(f)	3.3.11	Managing risks to health and safety		
r. 32(4)(g)	3.3.21	Maintenance and repair		
	3.3.22	Inspection, testing and monitoring		
	3.3.23	Integrity management		
r. 32(4)(h)	3.5.5	Emergency communication systems		
r. 32(4)(i)	3.3.12	Health and safety performance standards		
r. 32(4)(j)	3.3.6	Sources of information		
	3.3.10	Resources		
	3.3.15	Simultaneous operations and bridging documents		
	3.3.17	Management of change		
	3.3.18	Purchasing and control of materials and services		
	3.3.20	Materials handling and storage		
	3.3.28	Health monitoring systems		
r. 32(4)(k)	3.3.24	Performance standards for safety critical elements		
r. 32(4)(l)	3.3.30	Safety management system audits		
r.32(5)	3.2.1	Safety case covering the construction or installation of a facility		
r. 33(a)	3.3.4	Implementation and improvement of safety management system		
r. 33(b)	3.3.30	Safety management system audits		
r. 33(c)	3.3.31	Review and continual improvement		

Regulation	Guide section	Topic	Safety case section	Page #
<b>Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022</b>				
r. 34	3.3.5	Standards to be applied		
r. 35	3.3.7	Command structure		
r. 36	3.3.8	Competence of workers		
r. 37	3.3.19	Permit to work system for safe performance of various activities		
r. 38	2.5, 3.3.9	Involvement of workers and communication		
r. 39	3.3.14	Adequacy of design, construction, installation, modification or maintenance		
r. 40	3.3.29, 3.5.1	Medical and pharmaceutical supplies and services		
r. 41	3.3.21	Machinery and equipment		
r. 41(1)	3.3.21	Maintenance and repair		
r. 41(2)	3.3.22	Inspection, testing and monitoring		
r. 41(2)	3.3.23	Integrity management		
r. 42	3.3.29	Drugs and intoxicants		
r. 43	3.5.2	Emergency analyses		
r. 44	3.5.5	Emergency communications systems		
r. 45	3.5.6	Control systems		
r. 46	3.5.1	Emergency preparedness		
r. 47	3.2.6	Pipelines		
r. 48	3.2.7	Vessel and aircraft control		
r. 49	2.9.1	Access to safety case		
<b>Subdivision 4 – Record keeping</b>				
r. 50	2.8, 3.3.13	Arrangement for records		
<b>Subdivision 5 – Submission and acceptance of safety cases</b>				
r. 51	4.2	Safety case to be submitted to regulator		
r. 52	3.5.2	Evacuation, escape and rescue analysis		
r. 53	3.5.3	Fire and explosion risk analysis		
r. 54	2.6, 4.3	Regulator may request more information		
<b>Subdivision 8 – Validation</b>				
r. 67	3.3.16	Validation of proposed operations and proposed significant changes to operations		

Regulation	Guide section	Topic	Safety case section	Page #
<b>Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022</b>				
<b>Part 4 – Notifications and reporting</b>				
<b>Division 2 – Notifications</b>				
r. 100	3.3.26	Duty to notify of notifiable occurrences		
<b>Part 5 – General</b>				
<b>Division 1 – Miscellaneous</b>				
r. 101	3.3.26	Incident notification: prescribed serious illness		
r. 105	3.3.26	Dangerous incident [WHS Act s.37]		
<b>Division 2 – Managing risks to health and safety</b>				
r. 108	3.3.27	Duty to identify hazards		
r. 109	3.3.27	Managing risks to health and safety		
r. 110	3.3.27	Hierarchy of control measures		
r. 111	3.3.27	Maintenance of control measures		
r. 112	3.3.27	Review of control measures		
<b>Division 3 – Matters relating to work health and safety</b>				
<b>Subdivision 1 – General</b>				
r. 114	3.3.27.1	Avoiding fatigue		
r. 115	3.3.29	Possession or control of drugs or intoxicants		
<b>Subdivision 2 – Noise</b>				
r. 116	3.3.27.2	Meaning of exposure standard for noise		
r. 117	3.3.27.2	Managing risk of hearing loss from noise		
r. 118	3.3.27.2	Audiometric testing		
<b>Work Health and Safety Act 2020</b>				
<b>Part 3 – Incident notification</b>				
s. 38	3.3.26	Duty to notify of notifiable incidents		
s. 39	3.3.26	Duty to preserve incident sites		

# Appendix 4 Further information

## Petroleum safety guidance

### Interpretive guidelines

- *Development and submission of a diving safety management system*
- *Development and submission of a safety case*
- *Development and submission of an onshore facility safety case – drilling operations*

### Guides

- *Audits, review and continual improvement*
- *Bridging documents and simultaneous operations (SIMOPS)*
- *Dangerous goods and hazardous chemicals in petroleum, pipeline and geothermal energy operations*
- *Decommissioning and management of ageing assets*
- *Demonstration of risk reduction so far as is reasonably practicable (SFAIRP)*
- *Diving start-up notices*
- *Emergency response planning*
- *Facility design case*
- *Hazard identification*
- *Health and safety leading and lagging performance indicators*
- *Human factors fundamentals for petroleum and major hazard facility operators*
- *Human factors self-assessment guide and tool for safety management systems at petroleum and major hazard facility operations*
- *Identification of major accident events, control measures and performance standards*
- *Inspections – Land-based drilling rigs*
- *Involvement of workers*
- *Management of change*
- *Nomination of an operator*
- *Records management including document control*
- *Risk assessment and management including operational risk assessment*
- *Validation requirements*

## Codes of practice

- [\*Mentally healthy workplaces for fly-in fly-out workers in the construction and resources sector\*](#)
- [\*Psychosocial hazards in the workplace\*](#)
- [\*Workplace behaviour\*](#)

See the WorkSafe website for approved [codes of practice](#) on a range of related topics such as *Managing the risks of hazardous chemicals in the workplace*, *Confined spaces*, *Managing the risk of falls at workplaces*, *Managing risks of plant in the workplace* and *Managing the work environment and facilities*.

## Other resources

### WorkSafe WA

- [\*Discriminatory, coercive and misleading conduct: Interpretive guideline\*](#)
- [\*How to determine what is reasonably practicable to meet a health and safety duty: Interpretive guideline\*](#)
- [\*The health and safety duty of an officer: Interpretive guideline\*](#)
- [\*The meaning of 'person conducting a business or undertaking' \(PCBU\): Interpretive guideline\*](#)

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