



**Multinet  
Gas Networks**

**Attachment 9.4**

## **Risk management framework**

**Final Plan 2023/24 – 2027/28**

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July 2022



**1. Introduction**

AGIG is committed to the effective management of risk as part of its Corporate Governance program.

**2. Our Commitment is to ensure that:**

- Systems are in place to identify risks that AGIG faces in conducting its business;
- The impact of identified risks is understood;
- Risk treatment owners are nominated to manage the identified risks; and
- Assurance is provided on the effectiveness of the risk management system and risk controls.

**3. Our Commitment will be achieved by:**

- Identifying, assessing, controlling and recording hazards and risk;
- Providing appropriate training;
- Establishing and maintaining a risk management system;
- Ensuring that operational incidents are analysed and learned from and successes reviewed and repeated; and
- Reviewing and reporting on the risks and associated control framework to the AGIG Boards.

**4. Accountabilities:**

The Board (assisted by the Risk and Compliance Committee):

- Approves and monitors the implementation of the internal annual audit plan to ensure that planned audit activities are aligned to business risks;
- Approves policies and procedures implemented for the ongoing identification and management of risks (including this Risk Management Policy); and
- Requires management to provide reports on the system's performance and regularly reviews these reports.

Management is responsible to the Board for implementation of AGIG's system of internal control and risk management including:

- Monitoring and implementing AGIG's risk and internal control framework and providing reports to the Risk and Compliance Committee on performance in relation to the identification, assessment and management of risks; and
- Identifying material changes to the company's risk profile and disclosing these changes to the Risk and Compliance Committee.

Action	Governance Level	Date
Reviewed by	Executive General Manager Corporate and Regulation	February 2022
Recommended by	Executive Management Team	February 2022
Endorsed by	Risk and Compliance Committee	2 March 2022
Approved by	Board	9 March 2022
Version Number	1.1	
Next Review Due	10 March 2023	

# 1 Risk Management Approach

Risk management is a constant cycle of identification, analysis, treatment, monitoring, reporting and then back to identification (as illustrated in Figure 1.1). When considering risk and determining the appropriate mitigation activities, we seek to balance the risk outcome with our delivery capabilities and cost implications. Consistent with stakeholder expectations, safety and reliability of supply are our highest priorities.

Our risk assessment approach focuses on understanding the potential severity of failure events associated with each asset and the likelihood that the event will occur. Based on these two key inputs, the risk assessment and derived risk rating then guides the actions required to reduce or manage the risk to an acceptable level.

MGN’s risk management framework is based on:

- AS/NZS ISO 31000 Risk Management – Principles and Guidelines;
- AS 2885 Pipelines-Gas and Liquid Petroleum; and
- AS/NZS 4645 Gas Distribution Network Management.

The Gas Act 1997 and Gas Regulations 2012, through their incorporation of AS/NZS 4645 and the Work Health and Safety Act 2012, place a regulatory obligation and requirement on MGN to reduce risks rated high or extreme to low or negligible as soon as possible (immediately if extreme). If it is not possible to reduce the risk to low or negligible, then we must reduce the risk to as low as reasonably practicable (ALARP).

A summary of our Risk Management Framework, including definitions, is provided below.

Figure 1.1: Risk management principles



## 2 Risk Management Process

Risk assessment is the overall process of **risk identification, risk analysis and risk evaluation** and includes:

- Engagement and participation of relevant stakeholders in the risk assessment
- Understanding the impact of the internal and external context on the risks
- Identification of the potential risk events
- Identification of causes and impacts (consequences) of risks
- Identification of critical controls to prevent, detect and recover for the causes and impacts
- Identification of the inherent risk rating in terms of likelihood and impact under normal business operation
- Identification of the residual risk rating or mitigated risk rating in terms of effectiveness of the critical controls in managing the risks likelihood or impact.
- Risk treatment actions

A change in the external / internal context can trigger a risk assessment e.g. a new project or activity, change in business process, trends in HSE, change in stakeholder requirements, updates to regulations, updates in strategy and goals, evidence a control is not working or an event suggests the consequence or likelihood are different.

The flow of the risk assessment process is set out below according to the following broad formula:



### 2.1 Risk Identification

**Objective:** to identify all the important risks (and opportunities) that might create, prevent, accelerate or delay us from reaching the identified goals / objectives.

**Step 1:** List the top assumptions supporting the success of your objectives.

**Step 2:** List 3-5 key activity areas to consider risks eg stakeholder groups (community, regulators, BU teams) objective areas, critical suppliers, customers, key IT systems, asset management.

**Step 3:** Identify the big uncertainties / risks associated with each group in step 3. This helps get a broad thinking to ensure the important risks have been identified.

Depending on the purpose of the risk assessment consider the best approach for the assessment e.g. via an expert review, workshop or discussion group with key stakeholders/experts.

## 2.2 Risk Analysis and Evaluation

### Objective:

- Analysis helps understand the risk including causes or drivers of the risk, the potential impacts, controls and their effectiveness and the overall level of risk (inherent and residual)
- Evaluation helps to prioritise the risks for treatment especially when no further actions can be taken to bring risk to an acceptable level

**Step 1:** Identify 2-3 top causes and impacts for each risk identified.

**Step 2:** Identify the critical controls that prevent or may detect the risk occurring and the mitigating controls that reduce the potential impact if it has occurred.

**Step 3:** Determine the inherent risk rating – a reasonable assessment of the risk level assuming critical controls are not working or are not in place.

**Step 4:** Determine the overall control effectiveness – consider overall effectiveness of the identified critical controls to managing the risk. To be considered controls MUST be in place and not potential actions for the future.

**Step 5:** Determine the residual risk rating (the rating as it currently stands) – assessment of the risk after considering the critical controls and their overall effectiveness). In engineering, it's called mitigated risk.

**Step 6:** Compare the residual risk rating with the target risk rating – Target risk reflects negligible, low or moderate – ALARP risk rating.

## 2.3 Determining the risk rating

The risk rating is calculated by assigning the following two attributes to the risk

### 1. Likelihood

- The likelihood of the risk event occurring
- Use the Enterprise Risk Matrix Likelihood table (Section 5)

### 2. Impact

- The impact/ consequences under reasonable business operation
- Use the Enterprise Risk Matrix Impact table (Section 4)

### 3. Determining Risk Rating

- Map the likelihood and highest impact to obtain rating of Negligible, Low, Moderate, High or Extreme
- Use the Enterprise Risk Matrix (Section 6)

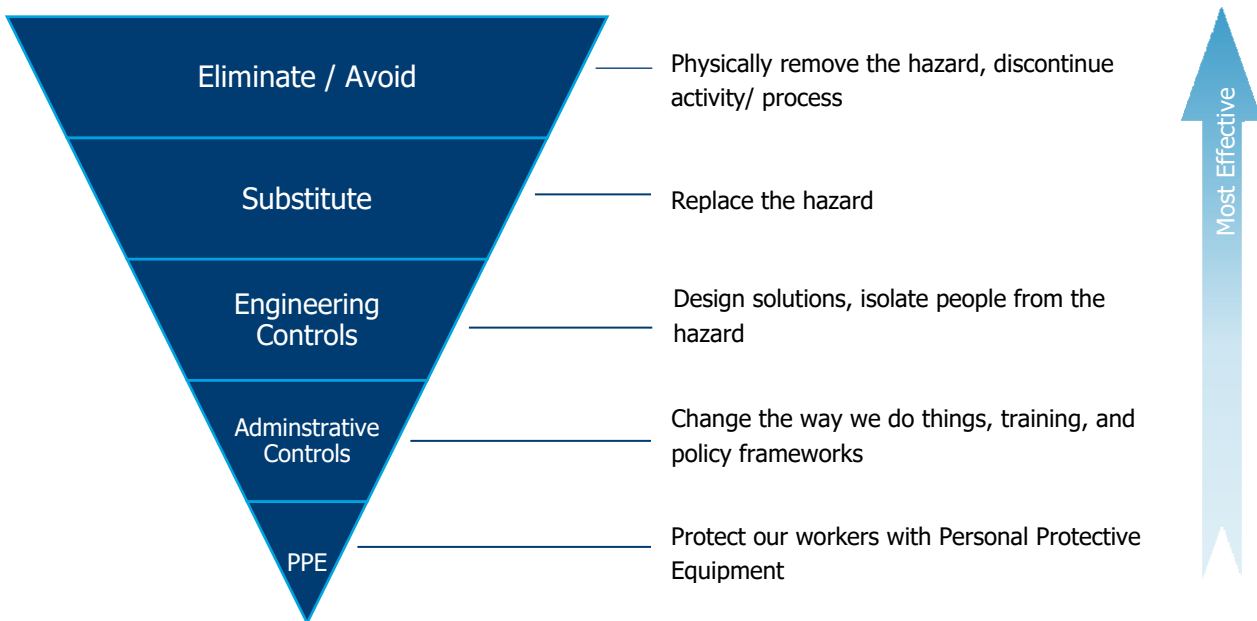
We assess the impact of a risk using the following impact categories. Note all the impact categories need to be considered however only the ones that apply need to be assigned to the risk. Where a risk has multiple impacts, the highest impact rating is used.

Impact Categories	Description
People	Injuries or illness to employees and contractors or members of the public
Supply	Disruption in the provision of services/supply, impacting customers
Environment	Impact on the surroundings in which the asset operates, including natural, built and Aboriginal cultural heritage, soil, water, vegetation, fauna, air and their interrelationships
Reputation	Impact on stakeholders’ opinion of MGN/AGIG, including personnel, customers, investors, security holders, regulators and the community
Financial	Including Property & Asset Damage and loss of production
Compliance	Impact from non-compliance with operating license, legal, regulatory, contractual obligations, debt financing covenants or reporting / disclosure requirements

## 2.4 Determining the overall control effectiveness

Controls are a measure or activity that manages the risk e.g. a manual process, procedure or IT system. A risk could have a number of controls.

When determining overall control effectiveness focus should be given to critical controls – the minimum controls needed to effectively manage risk. A strong control environment will have more preventative than detective and recovery controls. Control activities and their strength as follows:





Overall control effectiveness can be categorised as strong, satisfactory, some weakness, weak and unsatisfactory as per the table below:

Rating	Effectiveness	Description
5	Strong	Control environment is strong with appropriate balance between preventative, detective and recovery controls. The critical controls are operating as intended and meeting their objectives.
4	Satisfactory	Control environment is considered to be operating effectively and a good balance between preventative, detective and recovery controls are in place. Critical controls are operating as intended and meeting their objectives. Some actions are in place to improve the critical controls.
3	Some Weakness	The control environment has some weaknesses/inefficiencies. A number of critical controls have actions plans before they can meet their objectives. These are not considered to present a serious risk exposure.
2	Weak	Gaps identified. Critical controls are not operating as intended and in some instances Critical controls have failed to meet their objective. If not rectified there remains serious risk exposure. A large number of critical controls have actions plans before they can provide reliance.
1	Unsatisfactory	The control environment is not at an acceptable standard, as many weaknesses/inefficiencies exist. High number of incidents have occurred indicating Critical controls cannot be relied on.

## 2.5 Risk Treatment

Where current controls are not able to manage the residual risk rating to the acceptable target level, the following risk treatment options are applied:

Risk Rank	Required Action
Extreme	<p>Modify the threat, the likelihood or the consequences to ensure that the risk rank is reduced to intermediate or lower.</p> <p>For an in-service asset the risk shall be reduced immediately.</p>
High	<p>Modify the threat, the likelihood or the consequences to ensure the risk rank is reduced to intermediate or lower.</p> <p>For an asset in operation the risk shall be reduced as soon as reasonably practicable, with actions to implement new controls commencing typically within a timescale of not more than a few weeks.</p>
Intermediate	<p>Repeat threat identification and risk evaluation processes to verify the risk estimation; determine the accuracy and uncertainty of the estimation. Where the risk rank is confirmed to be "intermediate", where reasonably practicable modify the threat, the frequency or the consequence to reduce the risk rank to "low" or "negligible".</p> <p>Where it is not reasonably practicable to reduce the risk rank to "low" or "negligible", action shall be taken to:</p> <ul style="list-style-type: none"> <li>(a) Remove threats, reduce frequencies and/or reduce severity of consequences to the extent practicable; and</li> <li>(b) Formally demonstrate ALARP .</li> </ul> <p>For an asset in operation, the reduction to "low" or "negligible" or demonstration of ALARP shall be completed as soon as possible. Risk reduction or demonstration of ALARP should be completed within a few months.</p>

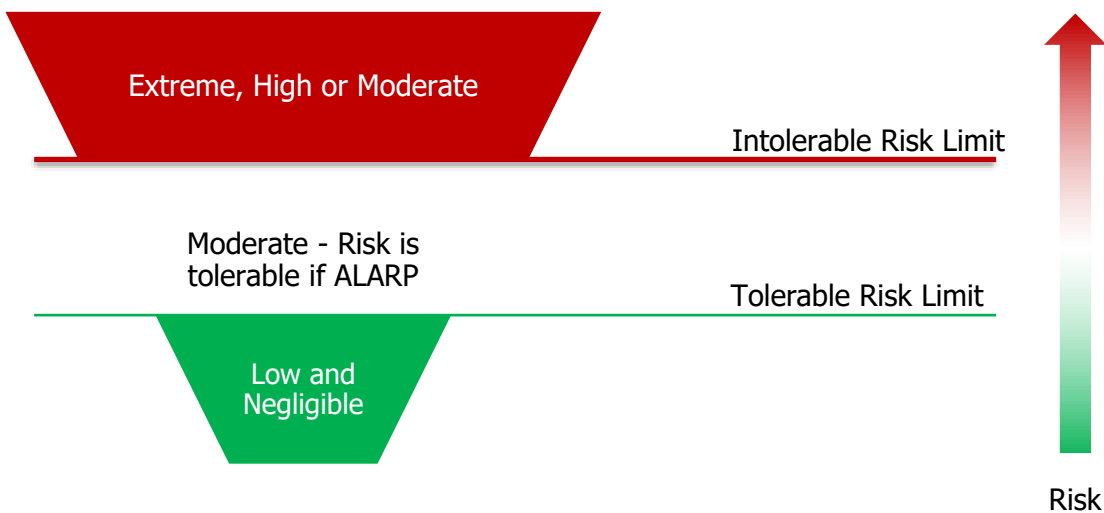
Risk Rank	Required Action
Low	Determine the management plan for the threat to prevent occurrence and to monitor changes that could affect the classification
Negligible	Review at the next relevant Formal Safety Assessment (FSA) or Safety Management Study (SMS) (for periodic operational review, land use change, encroachment or change of operating conditions).

It is important to understand that the process followed is not about eliminating risk but ensuring we can achieve the outcome consistent with our risk target and the cost of doing so is not prohibitive.

## 2.6 Risk Acceptance and Target Risk

The acceptable level of risk is our target risk. This is achieved when the residual risk evaluated post the treatment actions is reduced to negligible or low, or for moderate risks, the risk has been demonstrated to be as low as reasonably practicable (ALARP).

This is visually represented in the following diagram.



## 2.7 Risk Monitoring and Review

**Objective:** Monitoring status of controls, action plans and their effectiveness in managing and treating the risk and incorporating the results of performance management, measurement and reporting treatment

Risk management is an iterative, ongoing process. Monitoring risks, control status and actions should be undertaken in line with the operating rhythm to ensure effort in managing the risks and risk treatment remain appropriate and effective. The following are the minimum standards for monitoring the risk and control environment.

- Risks, controls and actions for high and extreme rated residual risks should be monitored quarterly.

- Risks should be reassessed when trigger events highlight control weakness or changes in the initial risk assessment.
- The accuracy and currency of our risk exposures must be ensured i.e. risk ratings reflect the current state of action plans and effectiveness of the current controls.
- Accurate, relevant and timely reporting is core to ensuring all stakeholders have the information needed to understand our risks, have confidence in our ability to manage the big uncertainties and to consider the risk current information in important decisions.

### 3 Operational Risk Matrix - Impact (Consequence) ratings

The purpose of the following tables is to support the industry threat assessment tables described in AS/NZS 4645.1 - Gas Distribution Networks and AS 2885 - Transmission Pipelines. Severity class for people has been aligned to AS2885 as it is more conservative in the upper end of the Severity ratings.

		Severity Class				
		Catastrophic	Major	Severe	Minor	Trivial
People	Injuries or illness to employees and contractors or members of the public	Multiple fatalities result.	One or two fatalities; or several people with life threatening injuries.	Injury or illness requiring hospital treatment.  <i>HSE Guide - Hospital inpatient; or One or more LTI (Lost time Injury)</i>	Injuries requiring first aid treatment.  <i>HSE Guide - One or more MTI (Medical treatment Injury).</i>	Minimal impact on health and safety.  <i>HSE Guide - Injury or illness requiring care administered by a non-medical professional; or No injury.</i>
Supply <sup>1</sup>	Disruption in the provision of services/supply, impacting customers	<p><b>Transmission</b> Widespread or significant societal impact, such as complete loss of supply to a major city for an extended time (more than a few days).</p> <p><b>DBP Business Considerations</b> <i>Interruption of supply for ≥1 week; or Curtailment (&gt;30% capacity) for ≥2 weeks</i></p> <p><b>Distribution</b> Interruption &gt; 100,000 consumer weeks.</p> <p><b>Ops Guide</b> - <i>Unplanned loss of service to:</i> - a metropolitan area - multiple demand customer (&gt;10TJ pa) with customer losses of revenue.</p>	<p><b>Transmission</b> Widespread societal impact such as loss of supply to a major city for a short time (hours to days) or to a localised area for a longer time.</p> <p><b>DBP Business Considerations</b> <i>Interruption of supply for ≥1 day but &lt;1 week; or Curtailment (&gt;30%capacity) for ≥3 days but &lt;2 weeks.</i></p> <p><b>Distribution</b> Interruptions &gt; 50,000 consumer weeks.</p> <p><b>Ops Guide</b> - <i>Unplanned loss of service to:</i> - a regional area or greater than a demand customer (&gt;10TJ pa) with customer loss of revenue. - Loss to multiple high risk high-risk sites without alternate supply options (hospitals, nursing homes, homes on life support)</p>	<p><b>Transmission</b> Localised societal impact or short-term supply interruption (hours).</p> <p><b>DBP Business Considerations</b> <i>Curtailment (&gt;30%capacity) for &lt;3 days; or Curtailment (&lt;30%capacity) for ≥2 days but &lt;1week</i></p> <p><b>Distribution</b> Interruptions &gt; 2,000 consumer weeks or &gt; 1,000 consumers.</p> <p><b>Ops Guide</b> – <i>Unplanned loss of service to:- Multiple demand customers (&gt;10TJ pa).</i>  - Loss to a single high risk high-risk site, without alternate supply options, (hospital, nursing home, home on life support)</p>	<p><b>Transmission</b> Interruption or restriction of supply but shortfall met from other sources.</p> <p><b>DBP Business Considerations</b> <i>Curtailment (&lt;30%capacity) for &lt;2 days</i></p> <p><b>Distribution</b> Interruptions &gt; 20 consumer weeks or &gt; 100 consumers\.</p> <p><b>Ops Guide</b> – <i>Unplanned loss of service to:</i> 100 - 1,000 customers a demand customer (&gt;10TJ pa)</p>	<p><b>Transmission</b> No loss or restriction of pipeline supply.</p> <p><b>DBP Business Considerations</b> <i>No impact; no restriction of pipeline supply.</i></p> <p><b>Distribution</b> Interruptions &lt; 2 consumer weeks<sup>2</sup>, &lt; 5 consumers.</p> <p><b>Ops Guide</b> - <i>Unplanned loss of service to &lt;100 domestic/I&amp;C customers</i></p>

<sup>1</sup> Transmission is pressure >1.05MPa (AS2885) and Distribution is pressure ≤1.05MPa (AS4645)  
<sup>2</sup> Consumer weeks = number of consumers multiplied by weeks that the consumers have no gas supply

		Severity Class				
		Catastrophic	Major	Severe	Minor	Trivial
<b>Environment<sup>3</sup></b>	Impact on the surroundings in which the asset operates, including natural, built and Aboriginal cultural heritage, soil, water, vegetation, fauna, air and their interrelationships	Impact widespread; viability of ecosystems or species affected; or permanent major changes.	Major impact well outside pipeline corridor or site, or long-term severe effects or rectification difficult.	Localised impact substantially rectified within a year or so.	Impact very localised and very short-term (weeks), minimal rectification.	No effect or minimal impact rectified rapidly (days). with negligible residual effect.
<b>Reputation</b>	Impact on stakeholders' opinion of MGN/AGIG, including personnel, customers, investors, security holders, regulators and the community	<p>Prolonged adverse international coverage (social and media) on business and energy industry</p> <p>Sustained loss of confidence in the organisation by the investor community</p> <p>Widespread anger, sustained deterioration in customer satisfaction or loss of multiple top 10 customers.</p> <p>Recorded drop (&gt;50%) in employee business unit engagement. Increasing employee complaints and breaches/ High staff turnover.</p>	<p>Prolonged adverse national coverage (social and media) / Sustained negative reports by financial analysts</p> <p>Medium to long term loss of confidence in the organisation by the investor community</p> <p>Major alarm and anger, sustained deterioration in customer satisfaction or loss of one top 10 customer / Major contract arbitration.</p> <p>Recorded drop (&gt;20% ≤50%) in employee business unit engagement. Increasing Employee complaints and/or breaches / Staff turnover rising.</p>	<p>Sustained adverse national:</p> <ul style="list-style-type: none"> <li>- media articles</li> <li>- viral social media</li> </ul> <p>Multiple negative reports by financial analysts</p> <p>Short to medium term loss of confidence in the organisation by the investor community</p> <p>Widespread complaints and anger, sustained deterioration in customer satisfaction / Small contract arbitration.</p> <p>Recorded drop (&gt;10 ≤20%) in employee business unit engagement. Several complaints or breach levels / some staff turnover.</p>	<p>Sustained:</p> <ul style="list-style-type: none"> <li>- adverse local media articles</li> <li>- detrimental social media comments</li> </ul> <p>One off negative report by financial analysts</p> <p>Limited complaints and anger, annoyance, concern and some complaints, some decline in customer satisfaction recoverable in &gt;12 months</p> <p>Signs of potential drop (≤10%) in Employee or team site engagement</p> <p>Minor site level complaints or breaches.</p>	<p>Isolated adverse:</p> <ul style="list-style-type: none"> <li>- local media comment or articles</li> <li>- low levels of detrimental social media comments</li> </ul> <p>No impact to confidence in the organisation by the investor community</p> <p>No public concern or complaints. Some decline in customer satisfaction recoverable in &lt;12 months.</p> <p>No impact on individual or team engagement. No employee complaints.</p>
<b>Financial</b>	Including Property & Asset Damage and loss of production	≥ \$5 Million	< \$5 Million & ≥ \$500 000	< \$500 000 & ≥ \$100 000	< 100 000 & ≥ 10 000	< \$10 000
<b>Compliance</b>	Impact from non-compliance with operating license, legal, regulatory, contractual obligations, debt financing covenants or reporting / disclosure requirements	Multiple areas of non-compliance / breaches with loss of one or more operating licenses, prosecution of directors or officers. Permanent loss of multiple material contracts	Non-compliance resulting in major fines, restrictions, potential of loss of license or licence variations Permanent loss of major/material contract Significant enforcement action affecting project operations including operational changes, incurred remediation costs, delays and or fines.	Non-compliance reportable to a regulator with potential for regulatory investigation or fines or with immediate correction to be implemented (directive action)  Non-compliance with a contractual/legal obligation(s) - results in litigation	Non-compliance which can be resolved in 3 - 12 months. Issuance of formal notice. Non-compliance with a contractual/legal/ Legislative obligation(s) - arbitration required Isolated complaint or incident with the potential for legal action. Reportable incident to regulator, no follow up	Compliance issue or incident which can be resolved internally/ does not require senior management intervention/Not reportable to regulator.

<sup>3</sup> Including heritage. Impact on the surroundings in which the asset operates, including natural, built and Aboriginal cultural heritage, soil, water, vegetation, fauna, air and their interrelationships

## 4 Enterprise Risk Matrix – Tables

		Impact				
		Catastrophic	Major	Severe	Minor	Trivial
Frequency	Frequent	Extreme	Extreme	High	Intermediate	Low
	Occasional	Extreme	High	Intermediate	Low	Low
	Unlikely	High	High	Intermediate	Low	Negligible
	Remote	High	Intermediate	Low	Negligible	Negligible
	Hypothetical	Intermediate	Low	Negligible	Negligible	Negligible
Frequency			Indicative Numerical Frequency <i>(Events/1000 km/year)</i>	Guidance for Regulatory		
Frequency Class	Frequent	Expected to occur once per year or more.	≥ 1	Many times in 1 year		
	Occasional	May occur occasionally in the life of the asset.	1 to 0.1 (1 to 10 <sup>-1</sup> )	Every 2 years		
	Unlikely	Unlikely to occur within the life of the asset, but possible.	0.1 to 0.001 (10 <sup>-1</sup> to 10 <sup>-3</sup> )	Every 5 Years		
	Remote	Not anticipated for this asset at this location.	0.001 to 0.00001 (10 <sup>-3</sup> to 10 <sup>-5</sup> )	Every 20 Years		
	Hypothetical	Theoretically possible but would only occur under extraordinary circumstances	<0.00001 (<10 <sup>-5</sup> )	Every 50 Years		
Risk Rank	Required Action					
Extreme	<p>Modify the threat, the likelihood or the consequences to ensure that the risk rank is reduced to intermediate or lower.</p> <p>For an in-service asset the risk shall be reduced immediately.</p>					
High	<p>Modify the threat, the likelihood or the consequences to ensure the risk rank is reduced to intermediate or lower.</p> <p>For an asset in operation the risk shall be reduced as soon as reasonably practicable, with actions to implement new controls commencing typically within a timescale of not more than a few weeks.</p>					
Intermediate	<p>Repeat threat identification and risk evaluation processes to verify the risk estimation; determine the accuracy and uncertainty of the estimation. Where the risk rank is confirmed to be “intermediate”, where reasonably practicable modify the threat, the frequency or the consequence to reduce the risk rank to “low” or “negligible”.</p> <p>Where it is not reasonably practicable to reduce the risk rank to “low” or “negligible”, action shall be taken to:</p> <p>(a) Remove threats, reduce frequencies and/or reduce severity of consequences to the extent practicable; and</p> <p>(b) Formally demonstrate ALARP<sup>4</sup>.</p> <p>For an asset in operation, the reduction to “low” or “negligible” or demonstration of ALARP shall be completed as soon as possible. Risk reduction or demonstration of ALARP should be completed within a few months.</p>					
Low	<p>Determine the management plan for the threat to prevent occurrence and to monitor changes that could affect the classification.</p>					
Negligible	<p>Review at the next relevant Formal Safety Assessment (FSA) or Safety Management Study (SMS) (for periodic operational review, land use change, encroachment or change of operating conditions).</p>					

<sup>4</sup> ALARP applies to Severity Classes for People, Supply and Environment only. Refer to AS2885 for further details.