National Manual of Assets and Facilities Management

Volume 12, Chapter 1

Risk Management Introduction Guideline

Document No. EOM-EM0-GL-000001 Rev 001

Document Submittal History:

Revision:	Date:	Reason For Issue
000	28/03/2020	For Use
001	18/08/2021	For Use

THIS NOTICE MUST ACCOMPANY EVERY COPY OF THIS DOCUMENT

IMPORTANT NOTICE

This document, ("Document") is the exclusive property of Government Expenditure & Projects Efficiency Authority.

This Document should be read in its entirety including the terms of this Important Notice. The government entities may disclose this Document or extracts of this Document to their respective consultants and/or contractors, provided that such disclosure includes this Important Notice.

Any use or reliance on this Document, or extracts thereof, by any party, including government entities and their respective consultants and/or contractors, is at that third party's sole risk and responsibility. Government Expenditure and Projects Efficiency Authority, to the maximum extent permitted by law, disclaim all liability (including for losses or damages of whatsoever nature claimed on whatsoever basis including negligence or otherwise) to any third party howsoever arising with respect to or in connection with the use of this Document including any liability caused by negligent acts or omissions.

This Document and its contents are valid only for the conditions reported in it and as of the date of this Document.

Table of Contents

1.0 INTRODUCTION TO RISK MANAGEMENT

The purpose of Volume 12 in the National Manual of Assets and Facilities Management (A&FM) Blue Book is to provide the reader with an introduction to the Risk Management discipline. Key concepts and ideas that are the fundamental building blocks for Risk Management will be introduced, and the benefits of Risk Management will be highlighted. Finally, the application of these concepts and ideas to the field of A&FM Risk Management is described and sample Templates for implementing A&FM Risk Management are provided in Volume 12 as reflected in the table below.

Volume 12	RISK MANAGEMENT	Document Number
Chapter 1:	**Risk Management Introduction Guideline**	EOM-EM0-GL-000001
Chapter 2:	**Asset and Facilities Risk Management**	
	Risk Management Procedure	EOM-EM0-PR-000001
	Risk Management Plan Template	EOM-EM0-TP-000001
	Risk Register Template	EOM-EM0-TP-000002

The guidance provided herein is focused on government or public sector assets. Entities have a variety of assets, ranging from simple assets that require little / simple A&FM to more complex or hazardous assets which could have high risk elements to health and safety. For example, a school facility contains heating, ventilation, air-conditioning (HVAC) systems, electrical and plumbing systems which require a regular maintenance schedule to ensure the systems are reliable and operating in an efficient manner. Whereas a power station will have more complicated systems with higher risks associated with their maintenance program.

In all such cases, there are strategic, tactical or operational objectives to be met and the A&FM Risk Management process is designed to identify, analyze, prioritize and manage all potential threats to successful achievement of these objectives.

In general, an efficient and effective maintenance schedule is required to keep assets such as buildings, facilities, equipment, machines and supporting utilities functional, safe, and in good condition. Maintenance activities performed as part of a maintenance schedule may include (but not be limited to): inspection; cleaning; testing; servicing; replacement; adjustment; repair; lubrication; measurement; and fault detection. A maintenance schedule that is inadequate or not carried out in accordance with the guidelines / the manufacturer's recommendations can lead to poor performance, premature condition degradation, unsafe conditions, accidents, or health problems. An effective A&FM Risk Management process will ensure that the risk of these adverse outcomes is minimized.

Risk Management should be undertaken at all stages of A&FM activity. This should include development of the A&FM strategy and associated A&FM program for any portfolio of facilities that need to maintain a specified operational performance level as well as condition (where effective employment of a limited resource such as specialist technicians may need to be considered), right through to asset specific maintenance, test and inspection activities.

Volume 12 is structured as follows:

- Risk Management Concepts and Application
- Defining Risk
- Benefits of Risk Management
- Risk Management Standards
- Risk Management System
- Application of Risk Management System to A&FM
- Risk Registers
- Risk Tolerance Criteria
- Risk Management Roles and Responsibilities

- Risk Governance

1.1 Risk Management Concepts and Application

At its heart, Risk Management is a formalization of what every decision maker does, either consciously or sub-consciously, when they consider alternative options as potential solutions to issues or problems. Bearing this in mind, the following hypothesis is postulated:

- Good management involves taking good decisions
- All decisions have inherent risks and uncertainties
- Decisions are therefore better informed by a better appreciation of these risks and uncertainties.

The latter point is realized by application of a ***Risk Assessment*** process - which is about identifying and understanding the impact of the risks and uncertainties. Armed with this information and understanding, ***Risk Management*** is employed consistently, thoroughly and regularly to maximize the chances of realizing the benefits of the selected decision.

These concepts and ideas are discussed in more detail in the subsequent sections.

1.1.1 Defining Risk

If a group of people are asked to list different types of risk, they will typically draw up a list that will look something like the following:

- Safety
- Environmental
- Technological
- Time
- Reputation
- Security / terrorism
- Health
- Fraud
- Corruption
- Political
- Socio-demographic
- Data integrity / loss
- Cyber attack
- Legal / regulatory
- Cost
- Quality
- Climate change
- Extreme weather (flood, storm)

However, a closer review of this list illustrates an important point. It contains a mixture of risk ***sources*** as well as risk ***impacts***. The list shown above has been rearranged to demonstrate this:

Risk Sources

- Technological
- Security/ terrorism
- Political
- Socio-demographic
- Cyber attack
- Legal / regulatory
- Corruption
- Climate change

Risk Impacts

- Safety
- Health
- Cost
- Time
- Quality
- Data integrity / loss
- Reputation
- Fraud
- Extreme weather (flood, storm)
- Environmental

Distinguishing between risk ***sources*** and risk ***impacts*** is important from a Risk Management perspective because this understanding helps to identify how best to intervene to manage or control the risks. For example, identifying risks and understanding what the source of the risk is, helps us to explore means of eliminating the risk altogether and understanding the potential impact of the risk helps us to explore means for reducing the potential impact or implementing risk management intervention measures to mitigate the potential impact.

There are a wide range of risk sources and risk types. Unsurprisingly, the nature or characteristics of the risks which are important in different circumstances, can differ widely. This means that approaches to Risk Management have developed in different ways in order to address specific and emerging industrial, sectoral or regulatory needs. This point is discussed further in Section 1.1.3 below, but one of the main consequences of this is that the literature contains many different definitions of 'risk' and a selection of these is presented in Table 1 below.

Table 1 – Selection of Risk Definitions from Different Standards

<table>
<tr><td>'Effect of uncertainty on objectives'

ISO 3100:2018 Risk Management - Guidelines</td><td>'The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact and likelihood.'

The Institute of Internal Auditors - https://na.theiia.org/certification/ Public%20Documents/Glossary.pdf</td></tr>
<tr><td>'Uncertainty of outcome, whether positive opportunity or negative threat, of actions and events. It is the combination of likelihood and impact, including perceived importance.'

UK HM Treasury, The Orange Book, 2004</td><td rowspan="2">'… a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives. '

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) Enterprise Risk Management - Integrated Framework, 2004.</td></tr>
<tr><td>'The likelihood, measured by its probability, that a particular event will occur.'

UK HM Treasury, The Green Book, July 2011</td></tr>
<tr><td>'A hazard is the potential for harm arising from an intrinsic property or disposition of something to cause detriment.'

'Risk is the chance, high or low, that somebody or something could be harmed by these and other hazards, together with an indication of how serious the harm could be.'

UK Health and Safety Executive - www.hse.gov.uk/risk/index.htm</td><td>'A risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on at least one of the project's objectives. Risks can be threats (negative) or Opportunities (positive).'

Project Management Institute, Practice Standard for Project Management (https://www.pmi.org/)</td></tr>
</table>

It should be clear from the examples that there are different emphases on aspects of the definitions, which reflect the origins and application of the definition. The Society for Risk Analysis undertook an exercise (*http://www.sra.org/sra-glossary-draft*) to construct a glossary of risk terms and definitions but concluded that:

> *'…experience has shown that to agree on one unified set of definitions is not realistic - the several attempts made earlier have not achieved success.'*

Despite this conclusion from an authoritative, learned organization - that there is not one definitive definition of risk - there are some common themes that can be highlighted. In particular, it is important to understand:

- The potential impact or scale of the risk.
- The chance or likelihood that this risk impact will be realized.
- The objectives that will be affected by the risk.

In summary, it is important to understand the **impact** and **likelihood** risk characteristics, and these should be considered in terms of how they may affect **objectives**. We therefore define risk as follows:

Anything that can threaten successful achievement of objectives.

It should be noted that the emphasis here is on managing 'threats. Good practice would consider 'risks' as well as 'opportunities' as part of Risk Management. At this time however, the general level of Risk Management understanding and maturity across the Kingdom is not judged to be high. Therefore, and on the basis that the concept of 'opportunity' is often misunderstood and applied incorrectly, the risk management focus is required to be on 'threats' only.

Opportunities
Note - while the A&FM Risk Management process considers threats only, this does not mean that opportunities for improvement are ignored in the Expro Blue Book. Indeed, opportunities for improvement are explicitly addressed in the ***Continuous Learning*** section of Volume 11 - Quality Management of the Expro Blue Book, and is embedded in the underpinning philosophy of Expro's mission to improve the, planning, execution and operations of public infrastructure assets or facilities.

1.1.2 Benefits of Risk Management

It is not unusual for senior managers to ask:

"What value does Risk Management add to my organization?"

This is often asked when an organization has experienced an extended period where few or no risks have been realized. Many institutions have undertaken research to provide some answers to this question but often it is more useful to think not in terms of 'value added', but rather in terms of 'value erosion avoided', i.e. what potential risks were we able to avoid experiencing? This way of thinking highlights the point that effective Risk Management is about being proactive and the prevention of bad things from happening or limiting the potential damage when things do go wrong (and they will at some point).

It is reported that through life maintenance costs can be up to three times the construction costs.[1] This highlights the importance of ensuring that any maintenance activity is undertaken effectively and efficiently. Risk Management can assist with maintenance planning by helping to identify:

- Potential threats to successful delivery of manufacturer's recommended maintenance schedules (e.g. unavailability of resources)
- Periods where asset down time will threaten operational performance (e.g. hospital operating theatres may require environmental control systems to be functional otherwise they cannot be used.).
- Causes of premature asset condition degradation.

The International Standard ISO 55000:2014 Asset Management – Overview, principles and terminology defines ***'asset management'*** as:

'Systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets and asset systems, their associated performance, risks and expenditures over their life cycles for the purpose of achieving its organizational strategic plan.'

The asset management definition from ISO55000:2014 (see text box above) indicates the potential contribution that risk management can make to sound A&FM of a facility / asset. A comprehensive and engaging approach to Risk Management can save time and reduce costs by ensuring A&FM work is planned

[1] W. Hughes, D. Ancell, S. Gruneberg, and L. Hirst. Exposing the Myth of the 1:5:200 Ratio Relating Initial Cost, Maintenance and Staffing Costs of Office Buildings. Proceedings 20th Annual ARCOM Conference, 373/382. Edinburgh; UK, 2004

optimally, utilizes resources efficiently, identifies and addresses causes of asset failure that can compromise asset performance.

The Project Risk Analysis and Management (PRAM) Guide (2004) – published by the Association of Project Management (APM), lists 'hard' and 'soft' benefits that can be expected from an effective Risk Management system in any environment. These are summarized in Table 2 below:

Table 2 – Benefits of Risk Management

'Hard' (Tangible) Benefits	'Soft' (Intangible) Benefits
• Enables better informed and more believable plans, schedules and budgets • Increases the likelihood of a project adhering to its schedules and budgets • Leads to the use of the most suitable type of contract • Allows a more meaningful assessment of contingencies • Discourages the acceptance of financially unsound projects • Contributes to the build-up of statistical information to assist in better management of future projects • Enables a more objective comparison of alternatives • Identifies, and allocates responsibility to, the best risk owner	• Improves corporate experience and general; communication • Leads to a common understanding and improved team spirit • Helps distinguish between good luck / good management and bad luck / bad management • Helps develop the ability of staff to assess risks • Focuses project management attention on the real and most important issues • Facilitates greater risk-taking, thus increasing the benefits gained • Demonstrates a responsible approach to customers • Provides a fresh view of the personnel issues in a project.

1.1.3 Risk Management Standards

As indicated in Section 1.1.1 there is a range of Risk Management standards to pick from. The most commonly cited or referenced standards are:

- ISO 31000:2018 - Risk Management - Guidelines
- BS31000:2008 – Code of Practice for Risk Management
- COSO:2004 – Enterprise Risk Management – Integrated Framework
- Federation of European Risk Management Associations (FERMA): 2002 – A Risk Management Standard
- Open Compliance and Ethics Group (OCEG) 'Red Book' 2.0 2009 – Governance, Risk and Compliance (GRC) Capability Model
- Solvency II:2012 – Risk Management for the Insurance Industry.

This begs the question ***"How have we got here, and why are there so many different standards?"*** Answering this question requires an understanding of the historical evolution and understanding of risk, which has been developed over time as a result of specific events, and the regulatory responses (sometimes at an international level) to the public outcry following these events. So, for example, in the 1980s there were a series of large scale, and high-profile safety related disasters which included:

- Chernobyl nuclear power plant explosion (52 deaths + latent cancers, 1986)
- Herald of Free Enterprise ferry disaster (193 deaths, 1987)
- The Piper Alpha offshore platform explosion in the North Sea (167 deaths, 1988).

In the 1990s, there were a series of financial management scandals including:

- Polly Peck International was a small British textile company which grew to a Financial Times Stock Exchange (FTSE) 100 company before collapsing in 1991 with debts of £1.3 billion.

- Robert Maxwell developed a publishing empire in the UK but after his death in 1991, huge discrepancies in his companies' finances were revealed, including fraudulent use of £100s of millions from the Mirror Group pension fund to support his other businesses.
- The Bank of Credit and Commerce International (BCCI) was forced to go into liquidation in 1991. Subsequent investigations in the US and the UK revealed that BCCI had been set up deliberately to avoid regulatory review and that its officers were committing fraud on a massive scale.

- In 1996, Nick Leeson lost £827 million and brought down Barings Bank.

In the 2000s, there were a series of Corporate scandals including:

- Enron filed for bankruptcy in 2001 following claimed revenues of over $100 billion in 2000 which were found to be derived via a complex set of fraudulent accounting systems.
- In 2002 WorldCom filed for Chapter 11 bankruptcy protection following an Internal Audit that revealed $3.8 billion of accounting fraud.
- Lehman Brothers filed for Chapter 11 bankruptcy protection in 2008. This remains the largest bankruptcy filing in U.S. history, with Lehman holding over $600 billion in assets.

The result of these events in the 1980s is that there was a lot of regulatory attention paid to development of safety risk and operational Risk Management standards. In the 1990s, there was a lot of focus on Governance of organizations, and the roles and responsibilities of Board members – especially between Executive Directors and Non-Executive Directors. In the 2000s and the subsequent global financial crisis, there has been a lot of attention and scrutiny of how financial institutions should demonstrate to regulators the financial risk exposure that their financial assets and shareholders are exposed to.

This historically diverse experience of risk types and exposure in different sectors illustrates the challenges associated with employing a uniform and consistent Risk Management approach. As a result, it is unsurprising that a multitude of different Risk Management standards have emerged. An important consequence through is that there is a potential danger in thinking that a Risk Management standard that has been developed to address a certain set of problems in a specific sector, can be employed at a general level in other areas.

1.1.4 Risk Management System

Notwithstanding the fact that Risk Management has evolved for application in different areas, there are common principles and themes that each sectoral application addresses. In all cases, the Risk Management approach is generally intended to address or answer the following questions:

- Risk of what?
- Risk to whom or what?
- How big or bad is the risk?
- Should we do something about it?
- What can be done about it?
- How can we implement this effectively?

These questions can be generalized by recognizing that every organization, initiative, policy or program has specific goals and objectives that it wants to realize. In this case, the challenge is to understand:

How can realization of these goals and objectives be compromised?

Answering this question will require a comprehensive and thorough identification of the events and / or uncertainties that could compromise the realization of the goals and objectives. If it is accepted that good management is about taking decisions and intervening where appropriate to maximize the chance of

realizing these goals and objectives, then it should also be accepted that all management decisions or interventions will be better informed if we understand the following:

- What can go wrong?
- What are the key uncertainties?

These aspects are all pulled together in the Risk Management process that has been developed for ISO:31000 and is described in (http://www.ferma.eu/guide-iso-31000). Figure 1 illustrates this in schematic form.

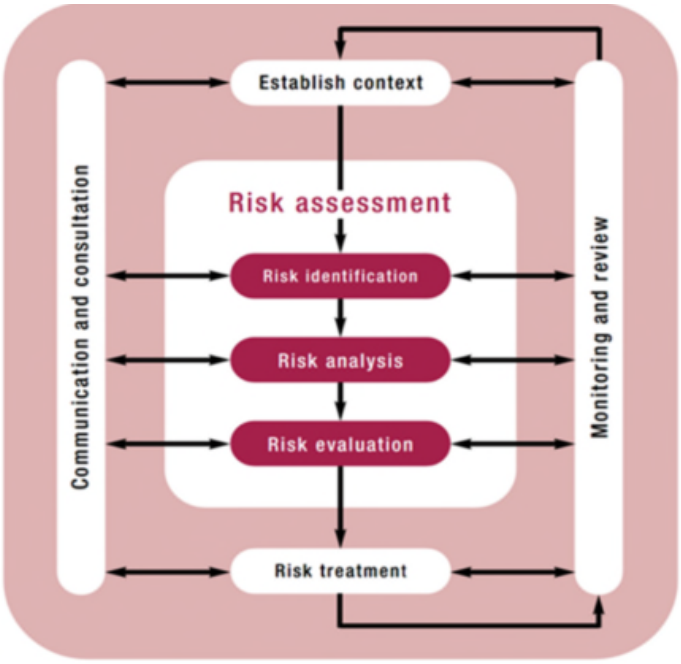


Figure 1 – The Risk Management System

Key activities that form part of every Risk Management system are as follows:

- Risk identification
- Risk analysis (or assessment)
- Risk evaluation (or prioritization)
- Risk treatment

These activities are wrapped up in the monitoring, review, engagement, and communication activities that complete the overall Risk Management system.

The activities that constitute these individual stages for A&FM Risk Management systems are described in more detail in Section 1.1.5.

1.1.5 Application of Risk Management System to A&FM

The schematic shown above summarizes how the general approach to Risk Management has been adopted for A&FM Risk Management. The main steps in the Risk Management process can be summarized as follows:

- **Identify** risks via risk elicitation, draft their risk statements, and assign Risk Owners. All risks will be captured in a A&FM risk register which will be continuously examined throughout the A&FM life cycle (refer to 6.2.1 of the Asset and Facilities Management Risk Management Procedure).
- **Analyze** risks through an examination and documentation of causes (sources) and effects (impacts), categorize the risks by their sources, and determine potential impacts (refer to 6.2.2 of the Asset and Facilities Management Risk Management Procedure).
- **Prioritize** risks based on an estimation of the likelihood and impacts, determine the current risk ranking on the risk matrix, and recommend Risk Management intervention options based on its risk priority (refer to 6.2.3 of the Asset and Facilities Management Risk Management Procedure).
- **Treat** risks where the Risk Management interventions are judged to be practicable and result in tolerable residual risk, and regularly evaluate the effectiveness of the risk treatments (refer to 6.2.4 of the Asset and Facilities Management Risk Management Procedure).
- **Manage** risks by undertaking regular monitoring and review activities, ensuring the quality of A&FM risk register data, ensuring alignment with functional interfaces, executing risk response plans, providing reports and metrics, interfacing with other relevant A&FM related processes and procedures, closing risks, and completing lessons learned (refer to 6.2.5 of the Asset and Facilities Management Risk Management Procedure).

An **A&FM Risk Management Procedure** has been developed for use and implementation by the Entities and provides much more detail around each of these stages. The procedure describes ***what*** should be done. ***How*** the procedure will be implemented for any given A&FM environment is described in the **A&FM Risk Management Plan**. It is important that the Risk Management team should review this process with the Facilities Manager and other relevant team members on a periodic basis to ensure that it is being implemented and executed effectively and efficiently.

1.1.6 Risk Registers

Risk Registers are at the heart of every Risk Management system. Amongst other things, they provide the mechanism for identifying and recording risks, ensuring they are scored or rated in a consistent manner, and tracking Risk Management intervention activities. An **A&FM Risk Register Template** (EMO-EM0-TP-

000002) is provided as Attachment 7 in the **A&FM Risk Management Procedure** (EMO-EM0-PR-000001) to support execution of the A&FM Risk Management Plan (EMO-EM0-TP-000001).

1.1.7 A&FM Risk Tolerance Criteria

When a risk has been identified, it is important to assess the risk. This is undertaken by consideration of the potential scale or impact of the risk and the associated chance or likelihood that the impact will be realized. There are a range of methods that can be employed in undertaking this assessment, including qualitative, semi-quantitative and quantitative methods. More detail about the application of these methods to A&FM is provided in the A&FM Risk Management Procedure.

The following examples illustrate how a qualitative risk impact and likelihood scales can be tailored for specific circumstances and audiences.

London Underground - Operations Managers	
Scale	Impact
High (H)	Partial Line Closure (or worse)
Medium High (MH)	Station closure
Medium Low (ML)	Journey delay > 2 mins
Low	Journey delay < 2 mins

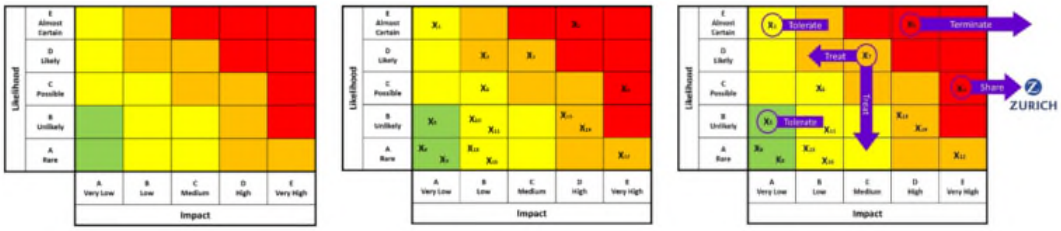
Battery Manufacturer - Board	
Scale	Impact
High (H)	Threatens business survival
Medium High (MH)	Long term damage to business
Medium Low (ML)	Short term damage to business
Low	Trivial

London Underground - Operations Managers	
Scale	Likelihood
High (H)	Greater than once per day
Medium High (MH)	Greater than once per week
Medium Low (ML)	Greater than once per month
Low	Greater than once per year

Battery Manufacturer - Board	
Scale	Likelihood
High (H)	Once a month
Medium High (MH)	Once a year
Medium Low (ML)	Once every five years
Low	Once every 20 years

When a risk register has been populated, it is normal to map all the risks onto a Risk Matrix constructed from the risk impact and likelihood scales - as shown in the schematic below ((a) Risk Matrix). It is normal for a Risk Matrix to have the individual cells categorized in some way (typically 'red', 'amber', 'yellow', 'green'). The distinction between 'red', 'amber', 'yellow' and 'green' risks should reflect the risk tolerance limits (often called risk appetite) that will be employed when making decisions.

Risk tolerability limits will be driven by a range of factors including: regulatory obligations; financial or contractual constraints; organizational goals and values and client requirements. The rationale for establishing the risk tolerance criteria should be recorded in the A&FM Risk Management Plan.



(a) Risk Matrix (b) Risk Profile (c) Risk Management Interventions

When all the risks are plotted onto the Risk Matrix, the results define the Risk Profile as shown in (b) Risk Profile above.

The Risk Management response or intervention level that should be employed for risks that fall into different risk categories, should be based on policy decisions that are recorded in the A&FM Risk Management Plan. The associated risk management interventions are split into one of four categories: Terminate; Share; Treat; and Tolerate as illustrated in (c) above.

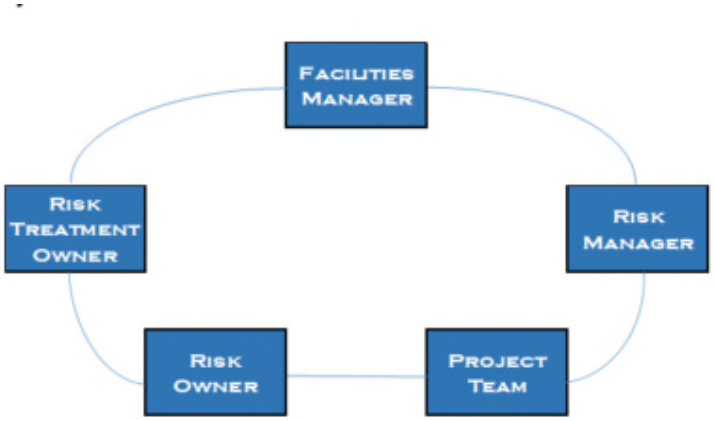
	Risk Matrix Category			
	Red Priority 1	Amber Priority 2	Yellow Priority 3	Green Priority 4
Risk Tolerance	Risks that significantly exceed the risk tolerance threshold	Risks that exceed the risk tolerance threshold	Risks that lie on the risk tolerability threshold	Risks that are below the risk tolerability threshold
Risk Response	Requires urgent and immediate attention	Requires proactive management	Requires active monitoring	Do not require active management

Example of Risk Management Intervention Levels

1.1.8 A&FM Risk Management Roles and Responsibilities

As indicated earlier, all of these general Risk Management steps need to be wrapped up in an overall set of activities that determine who does what, what information is shared between different parties, in what form, and how often. This completes the establishment of Risk Management system.

An important aspect of this is to establish who is responsible for what and this is particularly true for the A&FM of assets, where it is not unusual for individuals in key roles to change over time. The following schematic highlights the key A&FM roles that are critical for successful A&FM Risk Management.



The A&FM Risk Management Procedure describes the main responsibilities of these roles in detail and the A&FM Risk Management Plan will assign named individuals against the key roles. The key roles are summarized below:

Facilities Manager (FM)

- To provide overall direction for the management of the facility, including A&FM Risk Management activities
- To support all internal and external interface and resource requirements.

Risk Manager

- To support the FM by managing the A&FM Risk Management process
- To engage with all internal and external stakeholders and facilitate all communication requirements
- To manage the interfaces with all other relevant A&FM management processes
- To maintain the A&FM risk register and facilitate all data collation in support of this.

A&FM Team

- To participate in and contribute to the execution of the A&FM Risk Management process throughout the A&FM life cycle
- To provide expert input on the allocation of Risk Owners for all identified A&FM risks
- To provide guidance and expert input on any decisions about Risk Management intervention options.

Risk Owner

- Are nominated by the A&FM team and assigned to individual risks, and approved by the FM
- Responsible for the management of any risks allocated to them – and are answerable to the FM
- Provide suggestions to the A&FM team on the Risk Management interventions that could be employed to help manage specific risks.

Risk Treatment Owners

- Are nominated by the Risk Owner
- Responsible for the implementation and execution of agreed Risk Management interventions - and are answerable to the Risk Owner
- Responsible for monitoring and reporting effectiveness of the Risk Management interventions that they are responsible for.

1.1.9 A&FM Risk Governance

As indicated in the previous section, it is the responsibility of the Risk Manager to administer the A&FM Risk Management process. The A&FM Risk Management activities that are managed and overseen by the Risk Manager will be undertaken according to a predetermined management cycle that is agreed and approved by the Facilities Manager, and will be formalized in the A&FM Risk Management Plan (e.g. the risk assessment for legionella should be undertaken at least every two years).

The following table presents an example of the form that such an engagement and management plan may take:

Date	Activity to be Undertaken
1st of the Month	• Risk Owners review their risks for update and action using reports and metrics provided by the Risk Manager
2nd to 22nd of each Month	• Risk Manager, Risk Owners and other risk stakeholders update risks in the A&FM risk register, and evaluate risk response plans as required by risk review requirements • From stakeholder discussions, consideration is given to the potential for new risks for consideration by the A&FM management team at the monthly risk meeting, or sooner if a high-level risk is foreseen
23rd of each Month	• The risk register is frozen at month-end for report development and for a copy to be archived

Date	Activity to be Undertaken
25th of each Month	• The Risk Manager issues reports and metrics to the FM, A&FM team (or A&FM risk review group), Risk Owners, and other stakeholders (e.g. the customer) • Risk Manager ensures data archival requirements are complied with
28th of each Month	• The monthly A&FM risk review meeting is held with the A&FM team (or A&FM risk review group)
Quarterly	• A&FM team (or A&FM risk review group) undertake a full review of the A&FM risk register • Review of overall effectiveness of A&FM Risk Management plan and associated activities with the A&FM management team
Semi-Annually	• A&FM risk identification workshop with the A&FM team (or A&FM risk review group) and other risk stakeholders • Health check of A&FM Risk Management process by the A&FM team (or A&FM risk review group), or independently initiated