

SOP RM-001: Risk Management Framework

RM-001 | v01

Version: v01 | **Date:** 2026-04-03 | **Domain:** Risk Management | **Priority:** CRITICAL

Status: Published | **Published by:** Faolan Consulting

1. Purpose and Scope

Purpose: This SOP establishes the Risk Management Framework (RMF) for Faolan Consulting project controls engagements. It defines the principles, structure, process lifecycle, and governance requirements for identifying, assessing, treating, and monitoring risks across capital projects.

Scope: Applies to all Faolan project controls engagements from project initiation through close-out. Covers project risk (schedule, cost, technical, HSE, commercial) at individual project and programme level. Does not cover enterprise-level strategic risk (refer to client ERM policy).

Applicability: All project team members involved in risk management activities, including client-side project managers, planners, estimators, and HSE leads.

2. Definitions and Abbreviations

Term / Abbreviation	Definition
RMF	Risk Management Framework
RMP	Risk Management Plan
RMR	Risk Management Register
EMV	Expected Monetary Value (probability x impact)
QCRA	Quantitative Cost Risk Analysis
QSRA	Quantitative Schedule Risk Analysis
ERM	Enterprise Risk Management
PTW	Permit to Work
NCR	Non-Conformance Report
ITP	Inspection and Test Plan
Risk Owner	Person accountable for monitoring and responding to a specific risk
Risk Champion	Person coordinating the risk management process on a project
Residual Risk	Risk remaining after treatment/mitigation actions
Threat	A risk event that, if it occurs, has a negative impact on project objectives
Opportunity	A risk event that, if captured, has a positive impact on project objectives

Term / Abbreviation	Definition
Risk Appetite	The level of risk an organisation is willing to accept in pursuit of its objectives
Risk Threshold	The quantitative or qualitative boundary beyond which a risk requires escalation

3. Roles and Responsibilities (RACI)

Activity	Project Sponsor	Project Manager	Risk Champion	Risk Owner	Planner / Estimator	HSE Lead
Approve Risk Management Plan	A	R	C	I	I	C
Facilitate risk identification workshops	I	A	R	C	C	C
Maintain Risk Management Register	I	A	R	C	I	C
Assign risk owners	A	R	C	R	I	I
Develop and implement treatment actions	I	A	C	R	C	C
Conduct QCRA/QSRA	I	A	C	I	R	I
Report risk status to governance	A	R	C	I	I	I
Close or retire risks	I	A	R	R	I	I
Review and update RMF	A	R	R	I	I	I

Legend: R = Responsible, A = Accountable, C = Consulted, I = Informed

4. Procedure

4.1 Phase 1: Risk Management Planning

1. At project initiation, the Project Manager appoints a Risk Champion.
2. The Risk Champion drafts the Risk Management Plan (RMP) using the approved template (see Section 6).
3. The RMP must define:
 - Risk management objectives and scope

- Risk categories (schedule, cost, technical, commercial, HSE, environmental, regulatory)
- Risk rating matrix (probability and impact scales, calibrated to project size and sector)
- Risk appetite and escalation thresholds
- Reporting frequency and format
- Roles and responsibilities
 4. The Project Sponsor approves the RMP before risk identification commences.
 5. The approved RMP is issued to all team members and filed in the project document management system.

4.2 Phase 2: Risk Identification

1. Conduct a structured risk identification workshop within 4 weeks of project mobilisation.
2. Use a combination of techniques:
 - Brainstorming with project team (minimum: PM, planner, estimator, HSE lead)
 - Prompt lists based on risk category (refer to RMR template)
 - Review of lessons learned from previous similar projects
 - Review of contract, scope of work, and schedule for exposure areas
3. Capture each identified risk in the RMR with:
 - Unique risk ID (format: RKxxx)
 - Risk title and detailed description
 - Risk category
 - Potential cause(s)
 - Potential consequence(s)
 - Affected project objective(s) (cost, schedule, quality, safety)
4. Include both threats and opportunities.
5. The Risk Champion reviews all entries for duplicates and completeness before assessment.

4.3 Phase 3: Risk Assessment (Qualitative)

1. For each identified risk, assess probability and impact using the project risk rating matrix.
2. Calculate the Risk Score: Probability Rating x Impact Rating.
3. Assign a risk level: Critical (Red), High (Amber), Medium (Yellow), Low (Green) per the rating matrix thresholds.
4. Present results in a Risk Heat Map for review by the Project Manager.
5. Decision point: Are any risks above the escalation threshold?
 - YES: Escalate to Project Sponsor and flag for immediate treatment planning.
 - NO: Proceed to treatment planning per standard schedule.

4.4 Phase 4: Quantitative Risk Analysis (Where Required)

1. Apply QCRA and QSRA to projects meeting the criteria in SOP RM-008 (QCRA/QSRA Procedure).
2. QCRA quantifies cost exposure (P50, P80 contingency values).
3. QSRA quantifies schedule exposure (P50, P80 float consumption).

4. Results inform contingency setting per SOP RM-004 (Contingency Range Estimating) and SOP RM-005 (Contingency Expected Value).

4.5 Phase 5: Risk Treatment Planning

1. For each High or Critical risk, the Risk Champion assigns a Risk Owner.

2. The Risk Owner develops treatment actions. Treatment strategies:

- Avoid: Eliminate the cause or change the plan to avoid the risk entirely.
- Mitigate: Reduce probability or impact through preventive action.
- Transfer: Shift financial consequence to a third party (insurance, contract clause).
- Accept: Consciously accept the risk with or without a contingency reserve.
- Exploit (opportunities only): Take action to ensure the opportunity is realised.

3. Each treatment action must include:

- Action description
- Responsible person
- Due date
- Expected residual risk level after action

4. Project Manager reviews and approves treatment plans.

4.6 Phase 6: Risk Monitoring and Control

1. Review the RMR at each project progress review cycle (minimum monthly).

2. At each review:

- Update risk status (Open, In Treatment, Closed, Materialised)
- Record treatment action progress and update residual risk ratings
- Identify new risks that have emerged since the last review
- Retire risks that are no longer relevant (record closure reason and date)

3. Report risk status in the monthly project progress report using the standard Risk Summary section (see Section 6).

4. Flag any risk that has moved to Critical level since the last review for immediate PM attention.

5. Maintain a watch list for risks approaching their trigger dates.

4.7 Phase 7: Risk Closeout

1. At project close-out, the Risk Champion prepares a Risk Closeout Report.

2. The report includes:

- Final RMR showing all risk dispositions
- Summary of risks that materialised and their actual impact
- Lessons learned relevant to risk management
- Recommendations for future similar projects

3. File the Closeout Report in the project document management system and submit a Lessons Learned brief to the Faolan knowledge base.

5. Inputs and Outputs

#	Input / Output	Description	Owner
IN-1	Project Charter / Scope of Work	Defines project boundaries, objectives, and key constraints	Client / PM
IN-2	Contract and Commercial Terms	Identifies commercial risks, liability clauses, and insurance requirements	PM
IN-3	Project Schedule (baseline)	Basis for schedule risk identification and QSRA	Planner
IN-4	Cost Estimate (baseline)	Basis for cost risk identification and QCRA	Estimator
IN-5	HSE Risk Assessment	Safety hazards and controls already identified	HSE Lead
IN-6	Lessons Learned Register	Historical risk data from previous projects	Risk Champion
OUT-1	Risk Management Plan (RMP)	Governs how risk is managed on the project	Risk Champion
OUT-2	Risk Management Register (RMR)	Live record of all identified risks and their status	Risk Champion
OUT-3	Risk Heat Map	Visual summary of risk distribution by probability and impact	Risk Champion
OUT-4	QCRA/QSRA Report	Quantified cost and schedule risk exposure	Planner / Estimator
OUT-5	Monthly Risk Status Report	Summary of risk status for progress reporting	Risk Champion
OUT-6	Risk Closeout Report	Final disposition of all risks at project completion	Risk Champion

6. Tools and Templates

#	Tool / Template	Purpose	Location
T-01	Risk Management Plan Template	Standardised RMP structure	05_Templates/RM/
T-02	Risk Management Register Template	Excel-based RMR with rating matrix, heat map, and filters	05_Templates/RM/
T-03	Risk Rating Matrix	Probability and impact scales by project tier (minor, major, mega)	05_Templates/RM/
T-04	Risk Workshop Facilitation Guide	Structured agenda and prompt lists for identification workshops	05_Templates/RM/
T-05	QCRA/QSRA Software	Quantitative risk modelling (Oracle Primavera Risk Analysis, @RISK)	Client / Engagement-specific

#	Tool / Template	Purpose	Location
T-06	Monthly Risk Summary Report Section	Standard insert for progress reports	05_Templates/RM/
T-07	Risk Closeout Report Template	Structured close-out summary	05_Templates/RM/

7. References

1. Barrick CPS4 PM.RM PD 10101 -- Risk Management Procedure (Barrick Capital Projects Standard)
2. PMI Risk Management Standard, 2nd Edition (Project Management Institute, 2019)
3. Sasol Enterprise Risk Management Framework (Sasol Group ERM Policy)
4. ISO 31000:2018 -- Risk Management Guidelines (International Organisation for Standardisation)
5. AACE International Recommended Practice No. 40R-08 -- Contingency Estimating (General Principles)
6. SOP RM-002: Risk Identification and Analysis (Faolan)
7. SOP RM-004: Contingency Range Estimating (Faolan)
8. SOP RM-005: Contingency Expected Value (Faolan)
9. SOP RM-008: QCRA/QSRA Procedure (Faolan)
10. SOP RM-009: Contingency Management (Faolan)

8. Quality Criteria and Checklist

Use this checklist to verify that risk management is being executed in compliance with this SOP:

- RMP approved by Project Sponsor before risk identification commences
- Risk identification workshop held within 4 weeks of project mobilisation
- RMR includes both threats and opportunities
- All High and Critical risks have an assigned Risk Owner
- All High and Critical risks have documented treatment actions with due dates
- RMR reviewed and updated at minimum monthly
- Risks above escalation threshold reported to Project Sponsor
- QCRA/QSRA conducted where project meets criteria (per SOP RM-008)
- Contingency set with reference to QCRA/QSRA outputs
- Lessons Learned brief submitted at project close-out
- RMR filed in project document management system

Minimum pass criteria: All Critical risks have an owner, treatment plan, and are reviewed monthly.

9. Revision History

Version	Date	Author	Change Description
v01	2026-04-03	Site (#32)	Initial draft

