

## Risk Management Checklist

### Early Risk Identification (FEL-1)

#### ☐ Establish a Risk Management Framework Early On

- ☐ Create a structured risk management framework at the outset of the project to guide risk identification, assessment, and mitigation across all phases.
- ☐ Include clear procedures for risk communication, escalation, and accountability.

#### ☐ Identify Strategic and Market-Related Risks

- ☐ During FEL-1, assess **market-related risks** such as fluctuations in commodity prices, demand shifts, regulatory changes, or economic downturns.
- ☐ Document and prioritize these risks in the initial **risk register** to inform strategic decisions.

#### ☐ Highlight Technical and Operational Risks

- ☐ Identify **technical constraints** (e.g., technology readiness, supply chain limitations) and **operational risks** (e.g., labor availability, environmental factors).
- ☐ Engage subject matter experts from engineering, finance, and operations early to flag risks that could impact feasibility or alignment with strategic objectives.

#### ☐ Perform Initial Risk Assessment

- ☐ Use **qualitative assessments** (high, medium, low risk) to categorize risks by their potential impact and likelihood.
- ☐ Create an initial risk matrix to visually represent risk severity and likelihood, helping prioritize mitigation efforts early on.

#### ☐ Establish Risk Ownership and Accountability

- ☐ Assign clear ownership of each identified risk to key stakeholders. Ensure each owner is responsible for monitoring and addressing the assigned risk during FEL-2 and FEL-3.
- ☐ Define a process for regularly updating the risk register as new risks emerge.

### Detailed Risk Mitigation Planning (FEL-2)

#### ☐ Refine the Risk Register

- ☐ Expand the risk register to include more detailed risks identified during the refinement of scope, technical feasibility studies, and process design.

- ☐ Update the risk matrix to reflect **quantitative risk assessments**, such as expected monetary value (EMV) and scenario analysis.

#### ☐ **Develop Risk Mitigation Plans**

- ☐ For each high-priority risk, develop a comprehensive **risk mitigation plan**, outlining preventive actions, contingency plans, and triggers for escalation.

- ☐ Ensure that **cross-functional teams** contribute to risk planning to capture insights from various departments, such as procurement, engineering, and operations.

#### ☐ **Conduct a Risk Workshop**

- ☐ Organize a **risk management workshop** with key stakeholders and subject matter experts. Use this as an opportunity to ensure all risks are identified and fully understood.

- ☐ Focus on **key project risks**, such as regulatory hurdles, supply chain delays, and environmental impacts, ensuring mitigation plans are developed in detail.

#### ☐ **Implement Risk Quantification Techniques**

- ☐ Apply **quantitative techniques**, such as Monte Carlo simulations, to assess the impact of key risks on the project's cost, schedule, and scope.

- ☐ Use these results to prioritize risk mitigation resources and guide decision-making on high-impact risks.

#### ☐ **Incorporate Risks into the Project's Contingency Plan**

- ☐ Allocate sufficient budget and schedule contingency for high-risk areas. Ensure contingency plans are fully aligned with the project scope and cost estimates.

- ☐ Regularly review and update contingency allocations based on evolving risk assessments.

#### ☐ **Update Risk Ownership and Assign Mitigation Responsibilities**

- ☐ Reconfirm or reassign risk owners for each major risk, ensuring accountability for implementing mitigation strategies. Ensure that each owner has the authority and resources to act.

## Execution-Phase Risk Control (FEL-3 and Beyond)

### ☐ Review and Validate Risk Mitigation Plans

☐ Before the execution phase begins, conduct a **final review** of all risk mitigation plans. Ensure that all stakeholders are aware of high-priority risks and understand their roles in managing them.

☐ Confirm that all required mitigation measures are in place, and finalize any outstanding risk actions.

### ☐ Conduct Regular Risk Reviews

☐ Schedule regular risk reviews during the execution phase, with frequent updates to the risk register based on **real-time project data**.

☐ Ensure that risk reviews cover both new risks (emerging from the execution phase) and ongoing risks identified during FEL.

### ☐ Monitor Risk Indicators

☐ Establish **Key Risk Indicators (KRIs)** to provide early warning signals that a risk may be materializing. Monitor for changes in the **risk environment**, including fluctuations in regulatory conditions, cost drivers, supply chain performance, and stakeholder expectations.

☐ **Set thresholds** for each KRI that, if exceeded, prompt immediate action. These thresholds should be linked to critical project variables, such as cost overruns, schedule delays, or environmental compliance violations, ensuring a proactive approach to emerging risks.

### ☐ Prepare for Escalation and Contingency Activation

☐ Ensure that contingency plans are well-defined and ready to be activated when KRIs indicate that a risk is imminent.

☐ Establish clear escalation paths to ensure swift decision-making and resource allocation when risks materialize.

### ☐ Conduct Post-Risk Event Reviews

☐ If a risk materializes, conduct a **post-risk event review** to assess what worked and what didn't in the mitigation process. Use lessons learned to improve risk management in future projects.

☐ Update the risk register and risk management framework based on findings from the post-risk event review.

☐ **Close Out Residual Risks**

☐ As the project approaches completion, ensure all **residual risks** are documented and communicated to the operations team.

☐ Conduct a final risk review to confirm that any remaining risks are handed over to the appropriate parties with mitigation plans in place.