



Status of Risk Management

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CMB-S4 Collaboration Meeting
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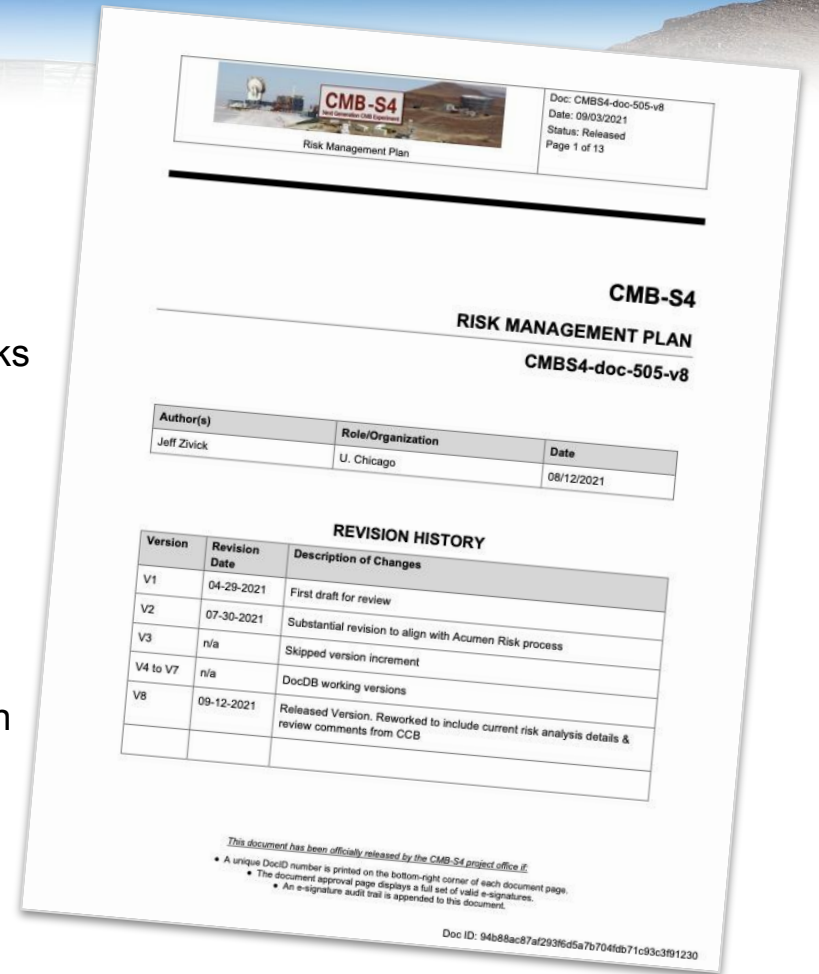
Risk Management For CMB-S4

Risk management

- A continuous and formal process for managing risks through the design and construction stages
- Coordinated project-wide assessment and ranking of risks to inform management decisions

Roles And Responsibilities

- DOE Project Manager and NSF Project Manager have overall responsibility for managing project risk for their respective scope
- The PMs are supported by a Risk Review Board (RRB) which includes L2 managers and PMCS leads who aid in assessing and managing project risk
- The Risk Manager (RM) provides risk management expertise and coordinates integrated risk management activities



Risk Implementation in CMB-S4

- Currently 195 risks across entire project.
- Four risk handling strategies:
 - Accept
 - Avoid
 - Transfer
 - Mitigate
- Not all risks need to be mitigated
- If mitigation is chosen:
 - *The risk must be assessed for pre-mitigation impact and post-mitigation impact (New process)*
 - The cost of mitigation must be included in the risk handling details

		INHERENT PROBABILITY					
		Unspecified	Rare	Unlikely	Possible	Likely	Highly Probable
INHERENT IMPACT	Critical						
	High					26	
	Moderate				96	19	
	Minor			22	31	1	
	Insignificant						
	Unspecified	164					

General attributes for all risks

WBS L2

1.01 - PO

Risk Handling Strategy

Accept, Avoid, Mitigate, Transfer

Agency

DOE or NSF

Risk Description

Describe the risk and the rationale for the chosen Risk Handling Strategy

Risk Owner



Must be assigned

- Choice here drives the Risk assessment and Impact analysis
- “Mitigate” requires a pre-mitigation Risk assessment and Impact and a second post-mitigation Risk Assessment & Impact
- 3 other choices only require a single Risk Assessment and Impact analysis

Risk Comments/Concerns

test

Risk Assessment & Impact analysis

There are predefined drop-down selections for the first 4 variables. The others are calculated.

We are investigating an override feature to handle extreme risks that have impacts, either in Cost or Schedule, that exceed the standard calculations.

General Risk Handling Details **Risk Assessment & Impact** Post-Mitigation Risk Assessment & Impact

Probability	Rare < 1%	Min Cost Impact	6,000,000
Cost Impact	Critical - >= 6M	Most Likely Cost Impact	7,500,000
Schedule Impact	High - CP < 3 mo	Max Cost Impact	9,000,000
Risk Score Value	5	Probability Weighted Cost Exposure	375,000
Risk Ranking	● Insignificant	Min Schedule Impact	1
Risk Impact Assessment Justification		Most Likely Schedule Impact	4.5
None		Max Schedule Impact	3
Risk assessment		Probability Weighted Schedule Exposure	0.225
Default risk model			

Risk Workshop

- The Risk Registry is stale and risks need to be reviewed and refreshed based on AoA efforts and new knowledge.
- The next Risk Workshop will be held in late April or early May. The new post-mitigation Risk Assessment and Impact will not be ready by then. The focus of this workshop will be on ensuring the risks are appropriate and comprehensive for the updated baseline design.
- A subsequent Risk Workshop will be held in September/October when the post-mitigation Risk Assessment and Impact analysis will be added to those risks with a Risk Handling Strategy of “Mitigate.”