



Risk Assessment and Mitigation Phase

(Chapter SCG-Risk-7-QWP) Incident Involving a Contractor Workpapers

May 17, 2021

Overall Workpaper Description	This workpaper file explains the risk scoring and Risk Spend Efficiency (RSE) quantification. It contains necessary information and sources for calculating the risk score and RSE for respective mitigations and controls filed in the 2021 RAMP.
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"Master Inputs" Tab	This sheet contains the major MAVF inputs for risk scoring
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"RSE Summary" Tab	This sheet presents a summarized view of RSE scoring
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RSE Equation	$\text{Risk Reduction} = (\text{Pre} - \text{Mitigated LoRE} * \text{Pre} - \text{Mitigated CoRE}) - (\text{Post} - \text{Mitigated LoRE} * \text{Post} - \text{Mitigated CoRE})$
Discounted Time	$1 - \left(\frac{1}{(1 + \text{Benefit Discount Rate})^{\text{Benefits Lifetime}}} \right) \text{Benefit Discount Rate}$
RSE per \$M	$\frac{\text{Risk Reduction} * \text{Discounted Time}}{\text{Total Cost} (\$M)}$

Master Inputs

Discount Factors

Benefit Discount Factor 3.00%

MAVF Framework

	Range	Weight
Safety Index	20	60%
Reliability Index	1	23%
Financial Cost	500	15%
Stakeholder Satisfaction Index	100	2%

2021 RAMP
 SCG-RISK-7-QWP
 RSE Summary

ID	Mitigation Name	Lifetime Benefit	Total Cost (\$k)	% Change in LoRE
SCG-RISK-7-A02	Alternative - Use A Different Third-Party Administration Tool To Vet Contractors For Safety*	1.0	\$31	0.66%
SCG-RISK-7-A01	Alternative - Use Internal Resources and Tools to Vet Contractors For Safety*	1.0	\$525	1.96%
SCG-RISK-7-C03	Contractor Engagement*	1.0	\$11	0.49%
SCG-RISK-7-C01	Contractor Safety Oversight*	1.0	\$1,669	3.85%
SCG-RISK-7-C04	Expanded Contractor Safety Oversight "Construction Contractor Field Oversight "**	1.0	\$303	0.35%
SCG-RISK-7-C02	Third-Party Administration Tools*	1.0	\$49	1.95%

* Mitigation has adjustment in "% Change in LoRE" field to account for variance in RSE calculation.

2021 RAMP
 SCG-RISK-7-QWP
 RSE Summary

ID	Mitigation Name	Pre-Mitigated LoRE	CoRE Safety	CoRE Financial	CoRE Reliability
SCG-RISK-7-A02	Alternative - Use A Different Third-Party Administration Tool To Vet Contractors For Safety*	144.77	2.36	0.35	0.00
SCG-RISK-7-A01	Alternative - Use Internal Resources and Tools to Vet Contractors For Safety*	144.77	2.36	0.35	0.00
SCG-RISK-7-C03	Contractor Engagement*	144.77	2.36	0.35	0.00
SCG-RISK-7-C01	Contractor Safety Oversight*	144.77	2.36	0.35	0.00
SCG-RISK-7-C04	Expanded Contractor Safety Oversight "Construction Contractor Field Oversight "**	144.77	2.36	0.35	0.00
SCG-RISK-7-C02	Third-Party Administration Tools*	144.77	2.36	0.35	0.00

* Mitigation has adjustment in "% Change in LoRE" field to account for va

2021 RAMP
 SCG-RISK-7-QWP
 RSE Summary

ID	Mitigation Name	CoRE Stakeholder Satisfaction	CoRE	Post-Mitigated LoRE	Risk Reduction
SCG-RISK-7-A02	Alternative - Use A Different Third-Party Administration Tool To Vet Contractors For Safety*	0.53	3.24	143.12	3.08
SCG-RISK-7-A01	Alternative - Use Internal Resources and Tools to Vet Contractors For Safety*	0.53	3.24	139.76	9.19
SCG-RISK-7-C03	Contractor Engagement*	0.53	3.24	143.52	2.29
SCG-RISK-7-C01	Contractor Safety Oversight*	0.53	3.24	134.91	18.05
SCG-RISK-7-C04	Expanded Contractor Safety Oversight "Construction Contractor Field Oversight "**	0.53	3.24	143.88	1.62
SCG-RISK-7-C02	Third-Party Administration Tools*	0.53	3.24	139.76	9.16

* Mitigation has adjustment in "% Change in LoRE" field to account for va

2021 RAMP
 SCG-RISK-7-QWP
 RSE Summary

ID	Mitigation Name	Discounted Time	RSE per \$Million	Data Sources
SCG-RISK-7-A02	Alternative - Use A Different Third-Party Administration Tool To Vet Contractors For Safety*	0.97	96.50	>Internal Class 1 Contractor OSHA Reportable Incident Rate & Safety Consequence data >ISN >Bureau of Labor Statistics >SME Input
SCG-RISK-7-A01	Alternative - Use Internal Resources and Tools to Vet Contractors For Safety*	0.97	17.00	>Internal Class 1 Contractor OSHA Reportable Incident Rate & Safety Consequence data >ISN >Bureau of Labor Statistics >SME Input
SCG-RISK-7-C03	Contractor Engagement*	0.97	202.20	>Internal Class 1 Contractor OSHA Reportable Incident Rate & Safety Consequence data >ISN >Bureau of Labor Statistics >SME Input
SCG-RISK-7-C01	Contractor Safety Oversight*	0.97	10.50	>Internal Class 1 Contractor OSHA Reportable Incident Rate & Safety Consequence data >ISN >Bureau of Labor Statistics >SME Input
SCG-RISK-7-C04	Expanded Contractor Safety Oversight "Construction Contractor Field Oversight "**	0.97	5.20	>Internal Class 1 Contractor OSHA Reportable Incident Rate & Safety Consequence data >ISN >Bureau of Labor Statistics >SME Input
SCG-RISK-7-C02	Third-Party Administration Tools*	0.97	181.50	>Internal Class 1 Contractor OSHA Reportable Incident Rate & Safety Consequence data >ISN >Bureau of Labor Statistics >SME Input

* Mitigation has adjustment in "% Change in LoRE" field to account for va