

FAX

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REMARKS:

Urgent For your review Reply ASAP Please comment

SAMA

Changes to Attachment F of the Wolf Creek License Renewal Environmental Report

An error in the output of the SECPOP2000 program (when used to produce a MACCS2 input file) was discovered that caused the Wolf Creek severe accidents analysis to be reworked. The re-analysis produced an insignificant change to dose-risk and a small change to cost-risk. These changed values were then used to recalculate a monetary screening value (Maximum Averted Cost Risk or MACR) for determining the cost-effectiveness of potential SAMAs.

The modified MACR (accounts for external events) based on the mean PRA results increased from \$1,852,000 to \$1,876,000 (1.3 percent increase). The 95th percentile PRA results sensitivity case was also recalculated and it was determined that the modified MACR increased from \$3,518,800 to \$3,564,400 (also a 1.3 percent increase). The changes to the modified MACR estimates did not impact the analysis.

In addition to the impact on the modified MACR, the SECPOP error also impacted the averted cost-risks that were calculated for each of the SAMAs. The following table provides a summary of the impact of using the corrected results in conjunction with the mean PRA results in the detailed cost-benefit calculations that were performed.

Results Summary for SECPOP Error Correction (Mean PRA Results)

SAMA ID	Cost of Implementation	Averted Cost-Risk (Base)	Net Value (Base)	Averted Cost-Risk (Post SECPOP Correction)	Net Value (Post SECPOP Correction)	Change In Cost Effectiveness?
SAMA 1	\$800,000	\$799,882	-\$118	\$800,784	\$784	Yes
SAMA 2	\$400,000	\$655,712	\$255,712	\$656,254	\$256,254	No
SAMA 3	\$328,000	\$293,252	-\$34,748	\$292,442	-\$35,558	No
SAMA 4 - Case 1	\$600,000	\$243,368	-\$356,632	\$259,672	-\$340,328	No
SAMA 4 - Case 2	\$50,000	\$173,050	\$123,050	\$184,812	\$134,812	No

Results Summary for SECPOP Error Correction (Mean PRA Results)

SAMA ID	Cost of Implementation	Averted Cost- Risk (Base)	Net Value (Base)	Averted Cost- Risk (Post SECPOP Correction)	Net Value (Post SECPOP Correction)	Change In Cost Effectiveness?
SAMA 5	\$50,000	\$54,676	\$4,576	\$54,698	\$4,698	No
SAMA 8	\$565,000	\$43,492	-\$521,508	\$43,522	-\$521,478	No
SAMA 13	\$160,000	\$111,168	-\$38,832	\$110,716	-\$39,284	No
SAMA 14	\$1,200,000	\$882,152	-\$317,848	\$883,116	-\$316,884	No
SAMA 15 - Case 1	\$3,250,000	\$404,219	-\$2,845,781	\$409,458	-\$2,840,542	No
SAMA 15 - Case 2	\$1,000,000	\$404,219	-\$595,781	\$409,458	-\$590,542	No
SAMA 18	\$565,000	\$22,648	-\$542,352	\$22,800	-\$542,200	No
SAMA 17	\$550,000	\$65,328	-\$484,672	\$65,388	-\$484,612	No

As demonstrated in the table, the corrections to the SECPOP input had a minimal impact on the averted cost-risk estimates and only one SAMA (SAMA 1) that was originally classified as "not cost beneficial" was re-classified as "cost beneficial" based on the use of the corrected input. Given that SAMA 1 was identified as potentially cost beneficial in the 95th percentile PRA results sensitivity analysis that was performed in the ER submittal, this change did not result in the identification of any new potentially cost beneficial SAMAs.

In addition to the review of the mean PRA results quantifications, it was necessary to examine how the 95th percentile PRA results quantifications were impacted given that they were also used to identify potentially cost beneficial SAMAs. The following table provides a summary of the cost benefit calculations using the corrected SECPOP input in conjunction with the 95th percentile PRA results. In this case, no SAMAs were identified as potentially cost beneficial that were not already identified in the ER submittal.

Results Summary for SECPOP Error Correction (95th Percentile PRA Results)

SAMA ID	Cost of Implementation	Averted Cost-Risk (Base)	Net Value (Base)	Averted Cost-Risk (Post SECPOP Correction)	Net Value (Post SECPOP Correction)	Change in Cost Effectiveness?
SAMA 1	\$800,000	\$1,519,776	\$719,776	\$1,521,490	\$721,490	No
SAMA 2	\$400,000	\$1,245,853	\$845,853	\$1,246,883	\$846,883	No
SAMA 3	\$328,000	\$557,179	\$229,179	\$555,640	\$227,640	No
SAMA 4 - Case 1	\$600,000	\$462,399	-\$137,601	\$493,377	-\$106,623	No
SAMA 4 - Case 2	\$50,000	\$328,795	\$278,795	\$351,143	\$301,143	No
SAMA 5	\$50,000	\$103,694	\$53,694	\$103,926	\$53,926	No
SAMA 8	\$565,000	\$82,635	-\$482,365	\$82,682	-\$482,308	No
SAMA 13	\$150,000	\$211,219	\$61,219	\$210,360	\$60,360	No
SAMA 14	\$1,200,000	\$1,676,089	\$476,089	\$1,677,920	\$477,920	No
SAMA 15 - Case 1	\$3,250,000	\$768,017	-\$2,481,983	\$777,969	-\$2,472,031	No
SAMA 15 - Case 2	\$1,000,000	\$768,017	-\$231,983	\$777,969	-\$222,031	No
SAMA 16	\$566,000	\$43,031	-\$521,969	\$43,320	-\$521,680	No
SAMA 17	\$550,000	\$124,123	-\$426,877	\$124,237	-\$425,763	No