

SAFETY POLICY DIVISION DATA REQUEST SPD-DR 007

SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014

DATE RECEIVED: JULY 20, 2021

DATE RESPONDED: AUGUST 3, 2021

Sempra has divided high pressure pipelines into tranches for HCAs and non-HCAs. "HCA" means High Consequence Area as defined in 49 CFR Part 192.

For SoCalGas the CoRE value is the same number, 537.9, for both HCA and Non-HCA tranches, according to the Tier 1 workpapers for SCG-RISK-1.

For SDG&E, the CoRE is the same for both tranches at 2301.63.

Question 01:

Why isn't the Consequence of Risk Event higher for the HCA tranches, where you would expect the consequences to be higher?

SDG&E and SoCalGas Response 01:

The pre-mitigation LoRE, CoRE, and risk score used to calculate the RSE values for the mitigations within the High Pressure Incident risk Chapter are not specific to each mitigation but rather equal the pre-mitigation LoRE, CoRE and risk score for the entire risk, i.e., they incorporate the frequencies and consequences of multiple incident types and represent an overall risk score for the High Pressure system.

SDG&E and SoCalGas tranche at the mitigation level, not the risk level, and therefore the CoRE remains the same per tranche. The differences between tranches are captured within the assumptions used to estimate the post-mitigation risk reduction values for each mitigation. Increased consequences associated with projects in the HCA are captured in the post-mitigation risk score calculation using multipliers, based on PHMSA data, to estimate differences in consequences between HCA and non-HCA.

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Question 02:

What are the factors that make the CoRE four times higher for San Diego?

For these same HP Gas Risks, the LoRE is the same for both tranches. For San Diego the LoRE is 0.88 risk events per year. But the length of pipe in San Diego's HCA is about 1/3 of the total according to the RAMP chapter narrative.

For SoCalGas the LoRE is higher at 8.64, which makes sense given the greater size of the SoCalGas system. Yet within SCG, there is no difference between HCA and non-HCA tranches.

SDG&E and SoCalGas Response 02:

As mentioned in SDG&E and SoCalGas Response 01, the risk score represents the overall risk to the High Pressure system and therefore captures consequence from both HCA and Non-HCA miles. The higher percentage of HCA miles in SDG&E's service territory compared to SoCalGas's produces a higher CoRE value for SDG&E.

SoCalGas's and SDG&E's research in responding to this question revealed that an incorrect ratio of HCA vs non-HCA high pressure pipe in SDG&E's service area was used in the quantitative analyses. Specifically, the analysis used to tranche certain mitigations in SDG&E's HP Incident risk chapter used a 33% HCA to 67% non-HCA ratio that is applicable in SoCalGas's service territory instead of a 84% HCA to 16% non-HCA ratio that is applicable in SDG&E's service area.

SDG&E will include the appropriate corrections within their respective Test Year 2024 GRC Applications. The total forecast dollars, units, and benefits to which these ratios are applied are not impacted by this oversight. Since tranching occurs at the mitigation level, the pre-mitigated LoRE, CoRE and risk score are also not impacted.

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Question 03:

Why is the likelihood of risk the same when the exposure to risk (number of miles) is different for HCA and non-HCA? Are the units of LoRE events/year or events/mile-year? How do the number of miles of exposure come into the calculation?

SDG&E and SoCalGas Response 03:

This question is split into the following three parts to provide clarity.

Question 3a:

Why is the likelihood of risk the same when the exposure to risk (number of miles) is different for HCA and non-HCA?

Response to 3a:

As mentioned in Response 01, the pre-mitigated LoRE is for the entire risk and includes multiple incident types, which are shown in the supplemental workpapers for the High Pressure incident risk chapters for both SDG&E and SoCalGas. LoRE and CoRE are determined for each incident type and a weighted average is used to establish the overall LoRE/CoRE. Specific to the High Pressure Chapters, there is a Transmission High Consequence incident type that utilizes a combined serious injury and fatality (SIF) per incident rate. This rate utilizes both HCA and Non-HCA mileage and SIF rates nationally, but also considers HCA mileage ratios for each utility to account for differences to the national average so that the appropriate HCA impacts are built into the CoREs. The LoRE is determined from national as well as utility-specific incident rates, which includes both HCA and Non-HCA.

Question 3b:

Are the units of LoRE events/year or events/mile-year?

Response to 3b:

The units of the LoRE are events per year. More detail is provided in the supplemental workpapers.

Question 3c:

How do the number of miles of exposure come into the calculation?

Response to 3c:

Please refer to response to Question 3a above.

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Question 04:

If the LoRE and CoRE are the same, why create separate tranches?

SDG&E and SoCalGas Response 04:

The risk reduction is different for mitigations occurring in an HCA versus in a non-HCA, and identifying the tranches at the mitigation level allows SDG&E and SoCalGas to calculate the differing RSEs for each mitigation's tranche.

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Question 05:

Please show the derivation of the LoRE and CoRE figures mentioned above, with all units included.

SDG&E and SoCalGas Response 05:

Please refer to the detailed calculations for LoRE, CoRE and Risk Score, as shown in supplemental workpapers provided by SDG&E and SoCalGas.¹

¹ See “SDG&E & SoCalGas response to SPD DR03-Supplemental in A.21-05-011/014” emailed to SPD on July 9, 2021. For SoCalGas: See tab “Risk Scoring Workpaper” in spreadsheet “Final 2021 RSE Workpaper – SCG HP – Supplemental_Level 2.xlsx”. For SDG&E: See tab “Risk Scoring Workpaper” in spreadsheet “Final 2021 RSE Workpaper – SDGE HP – Supplemental_Level 2.xlsx.”