4 Release Scenario Frequencies

Several accidental release scenarios were analyzed using the PHAST Risk software for the LNG DOT-113 tank car operations. The PHAST Risk software requires definition of the release sizes (e.g., no release, small, large, and catastrophic as defined earlier), release conditions, and the LOC frequency for each size of hole for each release scenario.

Event trees representing the two mainline train speeds are provided in Appendix B. The following tables summarize the release rates and associated release frequencies for combinations of one to eleven DOT-113s along mainline train movement at the two train speeds, low speed and high speed. The release frequencies are a function of the length of the route; therefore, each route has a distinct table of release frequencies. "Release Frequency" is the product of the "Initiating Event Frequency," "Derailment Probability," "Multiple Accident Probability," and "Release Probability."