

The likelihood that a hazard will occur during the planned life expectancy of a system element, subsystem, component, or daily operational function can be described subjectively in potential occurrences per unit time, event, population, items, or activity. A qualitative hazard probability may be derived from research, analysis, and evaluation of historical safety data or a similar system. The CSO, departmental managers, or the safety committee can assign a probability rating to a particular event or a specific hazard. Supporting rationale for assigning a hazard probability is documented in hazard analysis reports, memos, or minutes from meetings. The assessment of the probability of hazard occurrence will consider specific system operations based on the current system configuration. Hazard likelihood levels to be considered are shown in **Table 2** below.

Table 2 – Safety Risk Likelihood

Probability	Specific Item	Fleet / Inventory	Frequency
A Frequent	Likely to occur frequently in the life of an item	Continuously experienced	26 or more events in a year
B Probable	Will occur often in the life of an item	Will occur frequently in the system	13 to 25 events in a year
C Occasional	Likely to occur sometime in the life of an item	Will occur several times	6 to 12 events in one year, or less than 24 events in 5 years
D Remote	Unlikely but possible to occur in the life of an item	Unlikely, but can be expected to occur	1 to 5 events in one year or less than 10 events in 10 years
E Improbable	Unlikely to occur but possible	Unlikely to occur, but possible	1 event in 25 years
F Eliminated	Incapable of occurrence. This level is used when potential hazards are identified and later eliminated.		

The Safety Risk Index (**Table 3**) combines hazard categories, severity, and probability to constitute a chart to assist in the evaluation of specific hazards and their associated levels of risk.

Table 3 – Safety Risk Index

Safety Risk Categories					
Frequency	1 Catastrophic	2 Critical	3 Major	4 Marginal	5 Insignificant
A Frequent	1A	2A	3A	4A	5A
B Probable	1B	2B	3B	4B	5B
C Occasional	1C	2C	3C	4C	5C