

TABLE 11.10 The Risk Assessment Matrix Example in Z10

Likelihood of OCCURRENCE or EXPOSURE For selected Unit of Time or Activity	Example of a Risk Assessment Matrix			
	Severity of Injury or Illness Consequence and Remedial Action			
	CATASTROPHIC Death or permanent total disability	CRITICAL Disability in excess of 3 months	MARGINAL Minor injury, lost workday accident	NEGLIGIBLE First Aid or Minor Medical Treatment
Frequent Likely to occur repeatedly	HIGH Operation not permissible	HIGH Operation not permissible	SERIOUS High priority remedial action	MEDIUM Take Remedial action at appropriate time
Probable Likely to occur several times	HIGH Operation not permissible	HIGH Operation not permissible	SERIOUS High Priority remedial action	MEDIUM Take Remedial action at appropriate time
Occasional Likely to occur sometime	HIGH Operation not permissible	SERIOUS High Priority Remedial action	MEDIUM Take Remedial Action at appropriate time	LOW Risk Acceptable: Remedial Action discretionary
Remote Not likely to occur	SERIOUS High Priority Remedial action	MEDIUM Take Remedial action at appropriate time	MEDIUM Take Remedial action at appropriate time	LOW Risk Acceptable: Remedial Action Discretionary
Improbable Very unlikely - may assume exposure will not happen	MEDIUM Take Remedial action at appropriate time	LOW Risk Acceptable: Remedial Action Discretionary	LOW Risk Acceptable: Remedial Action Discretionary	LOW Risk Acceptable: Remedial Action Discretionary

risk assessments, extensions were made to include severity and probability descriptions and action levels.

In two instances, shop floor personnel said to safety professionals that relating numbers to each other first—such as 6 to 12—was a big help in understanding whether the risk category was moderate or serious. If using a risk assessment matrix in which numbers are used to begin with to establish risk levels makes the process more understandable and acceptable for operating personnel, that should be encouraged.

As noted in Figure 11.1, numbers in the matrix were derived intuitively: They are qualitative, not quantitative. Thus, the numbers have value only in relation to each other. And that is the case for all risk scoring systems that are not based on hard probability and severity numbers, which are rarely available.

On Acceptable Risk

The theoretical goal should always be to eliminate all hazards, but that may not be feasible. When a hazard cannot be eliminated, the associated risk should be reduced to a level as low as reasonably practicable and acceptable, considering cost constraints