



# **RATING GUIDELINES - MANUFACTURING**

# SEVERITY RATING GUIDELINES: MANUFACTURING

EFFECT	CRITERIA: SEVERITY OF EFFECT	RANKING
Hazardous without Warning	May endanger machine or assembly operator. Very high severity ranking when a potential failure mode affects safe operation and/or involves noncompliance with regulation. Failure will occur without warning.	10
Hazardous with Warning	May endanger machine or assembly operator. Very high severity ranking when a potential failure mode affects safe operation and/or involves noncompliance with regulation. Failure will occur with warning.	9
Very High	Major disruption to production line. 100% of product may have to be scrapped. Item inoperable, laws of primary function. Customer very dissatisfied.	8
High	Minor disruption to production line. A portion of product may have to be sorted and scrapped. Item inoperable, but at reduced level. Customer dissatisfied.	7
Moderate	Minor disruption to production line. A portion of product may have to be scrapped (no sorting). Item operable, but some comfort items inoperable. Customer experiences discomfort.	6
Low	Minor disruption to production line. 100% of product may have to be reworked. Item operable, but some comfort item operable to reduce level of performance. Customer experience some dissatisfaction.	5
Very Low	Minor disruption to production line. Product may have to be sorted and a portion reworked. Minor adjustments do not conform. Defect notice by customer.	4
Minor	Minor disruption to production line. A portion of product may have to be reworked on-line, but out of station. Minor adjustments do not conform. Defect notice by average customer.	3
Very Minor	Minor disruption to production line. A portion of product may have to be reworked on-line, but out of station. Minor adjustments do not conform. Defect notice by discriminating customer.	2
None	No Effect	1

# OCCURRENCE RATING GUIDELINES: MANUFACTURING

AIGPE

PROBABILITY OF FAILURE	POSSIBLE FAILURE RATES	RANKING
Very High: Failure is almost inevitable.	> 1 in 2	10
	1 in 3	9
High: Generally associated with processes similar to previous processes that have often failed.	1 in 8	8
	1 in 20	7
Moderate: Generally associated with processes similar to previous processes that have experienced occasional failures	1 in 80	6
	1 in 400	5
	1 in 2000	4
Low: Isolated failures associated with almost identical processes.	1 in 15,000	3
	1 in 150,000	2
Remote: Failure is unlikely. No failures ever associated with almost identical processes	<1 in 1,500,000	1

# DETECTION RATING GUIDELINES: MANUFACTURING

DETECTION	CRITERIA: LIKELIHOOD OF DETECTION	RANKING
Absolute Impossible	No known controls available to detect failure mode.	10
Very Remote	Very remote likelihood current controls will detect failure mode.	9
Remote	Remote likelihood current controls will detect failure mode.	8
Very Low	Very low likelihood current controls will detect failure mode.	7
Low	Low likelihood current controls will detect failure mode.	6
Moderate	Moderate likelihood current controls will detect failure mode.	5
Moderately High	Moderate high likelihood current controls will detect failure mode.	4
High	High likelihood current controls will detect failure mode.	3
Very High	Very High likelihood current controls will detect failure mode.	2
Almost Certain	Current controls almost certain to detect the failure mode. Reliable detection controls are known with similar processes.	1