

FMEA Rating Scales

Severity of Effect		Ranking
Minor	Don't expect this failure would cause substantial effect on process performance or service operation. Customer unlikely to notice or care about failure.	1
Low	Nature of failure causes slight customer annoyance. Customer notices minor degradation of service performance, slight impact on subsequent action, i.e. rework.	2,3
Moderate	Failure causes some customer dissatisfaction. Customer annoyed and experiences noticeable inconvenience and/or performance issues.	4,5,6
High	High degree of customer dissatisfaction due to negative consequences of failure, i.e. loss of valuable data, inoperable system processes. May cause serious disruption of work, major rework or loss to customer.	7,8
Very High	Serious personal safety or potential for litigation or regulatory penalties.	9,10
Frequency Rating		Ranking
Remote	Failure is unlikely or rare	1
Low	Only isolated failures, expected infrequently	2,3
Moderate	Occasional failure expected	4,5,6
High	Failures may occur often, regularly	7,8
Very High	Failure is almost inevitable	9,10
Detection Rating		Ranking
Very High	Current controls will almost certainly prevent the failure.	1,2
High	Current controls have a good chance of detecting the failure.	3,4
Moderate	Current controls may detect the failure	5,6
Low	Current controls have a poor chance of detecting the failure	7,8
Very Low	Current controls probably will not detect the failure.	9
Certainty of Non-Detection	Current controls will not or cannot detect the failure	10

Sample FMEA

Process	Potential Failure	Potential Effect	Severity	Potential Causes	Frequency	Current Controls	Detection	Risk Priority	Action Recommended
Accuracy of data input into CCS	Data entry errors by CCS users	Metrics available, but inaccurate.	8	Not following SOP, gap in training	5	Training evaluation, Manager follow-up/ audits	4	160	Performance coaching, Possible re-training by trainer
Enhancement request process for Ops Metrics	Lack of process or confusion by users for requesting report enhancements	Frustration in managers, inadequate performance improvement by teams	6	Gap in report enhancement request process or communication thereof	5	User Group F/U, Enhancement Request Process	4	120	Contact managers of BI and/or Rep, Info & Analysis
Accuracy of Ops metrics	Data errors in Ops metrics	Questions from users, mistrust of data/reports	7	Failure in testing process prior to release	4	IT-User Group testing plan	4	112	User Group works with BI
Communication of Metric Expectations and Targets	Ops managers unaware/confused about expectations	Confusion in mgmt teams, inconsistency among sites, poor performance	7	Gap in communication plans from senior leadership	5	Survey managers q 6 month, Employee satisfaction survey	3	105	Involve VPs, COO
Roll out of remaining metrics	Metrics unavailable within timeframe	Delay in use, continuation of metrics problem (inaccessibility, inefficiency, potential CCR fines)	4	IT resource gap, WFA resource gap	6	User Group F/U, i.e. monthly review, bi-weekly project plan updates	3	72	Involve VPs, COO, CIO, WFM - May depend on length of delay
Clear/Accurate definitions of metrics	Report without definitions or user guide	Misunderstanding of metrics, flood of questions	8	Resource issue, inadequate review or missed task	4	User Group F/U	2	64	User Group works with BI
Definitions of metrics in sync with Dashboard, Cognos tool	Daily, weekly ops reports do not support improving monthly dashboards due to mismatch in definitions	Frustration in managers, inadequate performance improvement by teams	8	Gap in change control, resource to revise old existing reports	4	User Group F/U- Change Control process	2	64	Contact Rep, Info & Analysis and BI
Efficiency of obtaining metrics	Portal breaks down, Structure of portal confusing	Non-use of key metrics, increase in manager time to get metrics	6	Gap in planning or tech support for portal	3	MSHELPME error/call reports?, Hits to portal, survey managers q 6 mon	3	54	User Group works with BI
Communication/Training of changes or new metrics	New metric on portal without customer being aware/trained	Flood of questions, non-use of key metric	7	Gap in roll out planning or change control, inadequate documentation in Portal	2	User Group F/U, Change Control Process	2	28	Contact BI and Training

1. Problem Description (What is wrong with what?)		Problem Solving Worksheet				
2. Description of problem	Is	Could Be But Is-Not	3. Deductions About Facts and Other Information			4. Possible Causes
			3a Distinctions	3b Changes	Date	List Change-How Theories
What specific object has the deviation?						
What is the deviation?						
Where is the object when the deviation is observed (geographically)?						
Where is the deviation on the object?						
When was the deviation first observed?						
When since that time has the deviation been observed? Are there any patterns?						
When in the object's history or life cycle, was the deviation observed?						
Extent - How many objects have the deviation?						
Extent - How many deviations are there on each						
Extent - What is the trend (in the object, in the number						

5. Test causes for probability: Challenge each with "How does it explain (each) Is Is-Not fact?"

Note assumptions needed to explain the inclusion or exclusion of root causes

Note facts which exclude potential causes

6. Steps to verify (Root cause):

Is Is-Not

	IS	COULD BE BUT IS NOT	Gather Information
1	What is the object you are having a problem with?		
2	What is the problem (defect)?		
3	Where do you see the defect on the object? Be specific.		
4	Where (geographically) is the problem observed? Where do you first see it?		
5	When (time) did you first notice the problem? Be as specific as you can about the day and time?		
6	When has the problem occurred since it was observed the first time?		
7	In a process flow diagram, at what step do you first see the problem?		
8	What information exists about production dates and shift codes? What trends, patterns, SPC charts relate to this information?		
9	How much of each object has the problem (nonconformities per unit)?		
10	What is the trend? Has It leveled off? Has it gone away, or is it getting worse?		
11	How many objects have the problem?		
12	How many defects do you see on each object?		
13	How big is the problem in terms of dollars, people time or other resources?		
14	How big is the problem in terms of dollars, people time or other resources?		

What	Identify	What specific object has the deviation?	What specific object(s) does not have the deviation?	What is the distinction between the has and the has not? (Changes?)	What is the possible cause?
		What is the problem (deviation)?	What is not the problem (deviation)?	What is the distinction between the is and the is not? (Changes?)	What is the possible cause?
Where	Locate	Where is the problem found?	Where is the problem not found?	What is distinctive about the difference in locations? (Changes?)	What is the possible cause?
When	Timing	When does (did) the problem occur?	When does (did) the problem not occur?	What is distinctive about the difference in timing? (Changes?)	What is the possible cause?
		When was the problem first observed?	When was the problem last observed?	What is the distinction between these observations? (Changes?)	What is the possible cause?
Extent	Magnitude	How far does the problem extend?	How localized is the problem?	What is the distinction? (Changes?)	What is the possible cause?
		How many units are affected?	How many units are not affected?	What is the distinction? (Changes?)	What is the possible cause?
		How much of any one unit is affected?	How much of any one unit is not affected?	What is the distinction? (Changes?)	What is the possible cause?