PFMEA Case Study 1 -- Differentiating Between Prevention (P) and Detection (D)

WHICH PFMEA LINE IS CORRECT?

Background

A Process Engineer develops a manufacturing plan for a new engine block. On similar existing process lines there were problems finding experienced machine operators. To avoid problems of the past, the engineer develops a training program for all new operators.

Question

Is the training program a Process Control that can be ranked as Detection? The training will always provide experienced machine operators therefore, the detection of 1.

Choose Option I or Option II

Option I

Proc Func / Req	Potential Failure Mode	Potential Effect(s) of Failure	SEV	Class	Potential Cause(s) / Mechanism(s) of Failure	OCC	Current Process Controls Prevention	Current Process Controls Detection	DET	RPN	Rec Action(s)	Responsibility	Target Comp Date	Actions Taken	New SEV	New OCC	New DET	New RPN
Oper 10 Sta 1R Drill 5.0mm dia hole 10.0 mm deep	Hole drilled too deep	Hole breaks into thin wall passage - reject at leak test (6) Leaker in field (7)	7		Operator enters wrong tool offset	3	Work Inst (P)	Periodic Gaging (6) Training (1)	1									

Option II

Proc Func / Req	Potential Failure Mode	Potential Effect(s) of Failure	SEV	Class	Potential Cause(s) / Mechanism(s) of Failure	OCC	Current Process Controls Prevention	Current Process Controls Detection	DET	RPN	Rec Action(s)	Responsibility	Target Comp Date	Actions Taken	New SEV	New OCC	New DET	New RPN
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