

### Example from a Hardware-based FMEA

**Machine/Process:** Onboard compressed air system

**Subject:** 1.2.2 Compressor control loop

**Description:** Pressure-sensing control loop that automatically starts/stops the compressor based on system pressure (starts at 95 psig and stops at 105 psig)

**Next higher level:** 1.2 Compressor subsystem

Failure Mode	Effects			Causes	Indications	Safeguards	Recommendations/Remarks
	Local	Higher Level	End				
A No start signal when the system pressure is low	Open control circuit	Low pressure and low air flow in the system	Interruption of the systems supported by compressed air	Sensor failure or miscalibration Controller failure or incorrect setting Wiring fault Control circuit relay failure Loss of power for the control circuit	Low pressure indicated on air receiver pressure gauge  Compressor not operating (but has power and no other obvious failure)	Rapid detection because of quick interruption of the supported systems	Consider a redundant compressor with separate controls  Calibrate sensors annually
B No stop signal when the system pressure is high	• • •	• • •	• • •	• • •	• • •	• • •	• • •
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