Example of a Higher Level, Hardware-based FMEA

**Machine/Process:** Onboard compressed air system  
**Subject:** 1.2 Compressor subsystem  
**Description:** Equipment used to compress the intake air to 100 psig (including the compressor and its control loop, the discharge relief valve, and associated piping).

**Next higher level:** 1. Compression system

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| Fails to provide air at 100 psig | No air pressure and the compressor not operating | Interruption of the systems supported by compressed air | Compressor control loop – no start signal when the system pressure is low  
Compressor – fails to operate  
Relief valve – spuriously opens  
Piping – leak/rupture | Low pressure indicated on the air receiver pressure gauge | Rapid detection because of quick interruption of the supported systems | Consider a redundant compressor (diesel powered) with separate controls  
Calibrate sensors annually  
Replace the relief valve annually |

|                        |         |               |             |            |                        |