

Introduction

In 2007 the Department of Energy's Health, Safety and Security Office of Corporate Safety Analysis issued Rev 6 of Suspect/Counterfeit Items Awareness Training, available at www.hss.energy.gov/CSA/CSP/sci/SCIAwarenessTrainingManual062007.pdf. Appendix B of that document lists indications that render items suspect. They include:

Source: <http://www.valvemagazine.com/magazine/sections/feature-s/4422-suspicious-and-counterfeit-valves-an-avoidable-danger.html>

A. General Indications

- Used component appearance
- Unusual or inadequate packaging
- Foreign newspapers used as packaging
- Scratches on component outer surface
- Evidence of tampering
- Components with no markings
- Pitting or corrosion
- External weld or heat indications
- Questionable or meaningless numbers
- Typed labels
- Evidence of hand-made parts
- Painted stainless steel
- Ferrous metals that are clean and bright
- Excess wire brushing or painting
- Ground off casting marks with stamped marks in the vicinity
- Ground off logo mark
- Signs of weld repairs
- Threads showing evidence of wear or dressing
- Inconsistency between labels
- Old or worn nameplates
- Nameplates that look newer than the component
- Missing manufacturer's standard markings and logos
- Overlapping stamps
- Different colors of the same part
- Traces of Prussian Blue
- No specification number
- No size designation
- Missing pressure class rating
- Other missing designations per the specification
- Evidence of re-stamping
- Deficient welds on chemical/nuclear shipping casks
- Thinner than expected
- Parts identified as "China" only, or "Korea," "Mexico," "Thailand," "India"

A. General Indications (cont)

- Excess certification logos (i.e. "UL," "FM," "CGA," "AGA") all on one valve body – not normal, usually will have one or two logos plus ANSI or ASME

B. General Valve Indications

- Wrench marks on valve packing glands, nuts, and bolts
- Nameplates attached with screws rather than rivets
- Poor fit between assembled valve parts
- Dirty internals
- Scratched or marred fasteners or packing glands
- Gate valve: gate off-center when viewed through open end
- Fresh sand-blasted appearance of valve bodies, eyebolts, fittings, stems
- Loose or missing fasteners
- Different types of hand wheels on valves of the same manufacturer
- Some parts (e.g., hand wheels) look newer than rest of the valve
- Improper materials (e.g., bronze nut on a stainless stem)
- Post-manufacturing alteration to identification/rating markings
- Indication of previous joint welding
- Excessive standards markings (e.g. UL, FM, CGA, AGA) (check manufacturer literature for standards they use)
- Valves will not open or close, even when wrench applied.
- Substandard valves mixed in with standard valves (substitution)

Immediate actions: Robust Procurement Controls

- Use approved distribution networks.**
- Safeguard design information**, prevent it from becoming available to counterfeiters.
- Question suppliers' return policies and design control measures**—how do they control parts and subassemblies purchased from sub-tier suppliers?
- Incorporate terms and conditions** that address expectations (and consequences) relative to counterfeit, fraudulent and substandard items.
- Open lines of communication with suppliers**, ask them to provide instructions for how to recognize and avoid any counterfeits if they know of instances where the items you purchase have been counterfeited.
- Trust but verify**—perform diligent inspection in receiving items procured, particularly when they are provided by a new supplier or must be procured outside of approved distribution networks.
- Pursue incidents when they are identified**; notify the authentic OEM; prosecute if possible