Processes and Practices Related to Occupational Dose

**ID:** 46

**REPLACEMENT OF WORN VALVE OR INTERNAL PARTS WITH LOW-COBALT OR COBALT-FREE ALLOYS**

**Keywords:** VALVE REPLACEMENTS; CONTAMINATION PREVENTION; MATERIALS OF CONSTRUCTION; COBALT; COBALT-FREE ALLOYS; LOW COBALT ALLOYS; VALVES

**Description:**

One of the major sources of cobalt-60 appears to be the cobalt bearing alloys used for hard-faced and wear-resistant materials used in valve internals. Reduction of this major source of cobalt by replacing these internals parts or entire valves with low-cobalt or cobalt free alloys would reduce the build-up of radiation field around primary piping and components. EPRI has been testing replacement valves with several low cobalt or cobalt free alloys at several plants. These tests have shown that in addition to reducing the building of cobalt-60 these new alloys provide improved wear resistance as well as reduced the amount of required valve maintenance.

**References and Selected Abstracts:**


