Processes and Practices Related to Occupational Dose

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QUICK-OPENING HATCH FOR PWR FUEL TRANSFER TUBE

Keywords: QUICK-OPENING HATCH; FUEL TRANSFER TUBE; OPERATIONAL AND MAINTENANCE TECHNIQUES; FUEL TRANSFER SYSTEM; REFUELING; QUICK-CLOSEOUT GATES

Description:

PWR fuel transfer tubes typically utilize a blind flange that is bolted to the end of the fuel transfer tube. This flange is removed and replaced each refueling. Normally, this involves removal/replacement of 20 bolts by two men. These operations are performed in a 500 to 3000 mrem per hour field for a period of about 1 hour for removal and about 2 hours for replacement. The use of a quick-opening transfer tube closure device reduces the time and dose (approx. 7.5 MAN-REM/OUTAGE) associated with this task. If this work is done on critical path about 3 hours of critical path time can be saved. The flange is locked in place by a series of radial latches which can be inserted or retracted by a handwheel. The flange is hinged to a pivoting davit for opening and closing.

References and Selected Abstracts:
