READY TO INSPECT — FIELD CHECKLIST

Deluge valve quarterly maintenance checklist

A quarterly deluge valve round is short on purpose: it catches the wear items that fail between annual services. This checklist is sized for a tech with a phone. Every item says what to look at and the photo that proves the round happened. Work is commonly verified against NFPA 13, NFPA 25. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The building engineer or sprinkler service tech reading the gauges, the release trim and the protected nozzles on the quarterly round, recording conditions rather than releasing the valve. When: Every quarter, and closely wherever the hazard it protects is in service, since a deluge valve dumps water to every open nozzle at once the moment it releases.

Notice before the round

- [ ] Monitoring, owner and people near the gong told before trim opens
  Monitoring company placed on test for waterflow and trouble signals, the owner told, and people near the gong or bell warned it will sound though no nozzle discharges, the call logged.
  No photo required
- [ ] Impairment procedure applied to the protected hazard
  Hazard's operator told the deluge may be out of normal while its trim is worked, process changes held until it is back, and the owner's impairment procedure and any fire watch followed.
  No photo required

Pressures and priming

- [ ] Water-supply and priming pressures read
  Supply water pressure and the priming or diaphragm pressure holding the valve closed both read at the gauges, readings noted, neither gauge stuck or pinned.
  2 photos required
- [ ] Priming and trim valves in their normal positions
  Priming line and trim valves set to their marked normal positions, no weeping at the trim, nothing left isolated after prior service.
  1 photo required
- [ ] Pilot line pressure or electric release status read
  Air pressure on a pneumatic pilot line or water pressure on a hydraulic pilot line read at its gauge, or the releasing panel display on an electric release, and the release type noted.
  1 photo required
- [ ] Automatic drain at the valve outlet checked for leakage
  Automatic drain or drip check on the system side free to move with no steady flow, water here flagged as a seat or diaphragm leak for the contractor.
  1 photo required

Release path and nozzles

- [ ] Detection and manual release station observed
  Detection covering the hazard intact and reporting, release solenoid or pneumatic actuator in its normal state, manual release station in place, unobstructed and not left disabled.
  2 photos required
- [ ] Open discharge nozzles clear and aimed
  Open sprinklers or spray nozzles clear of paint, debris and corrosion, each present and aimed at the hazard it was set for, none plugged or missing.
  1 photo required
- [ ] Hazard under the nozzles compared with the design layout
  Equipment, tanks, conveyors or storage under the nozzles still where the design places them, nothing new blocking the spray, any change reported to the owner and the contractor.
  1 photo required
- [ ] Drainage or containment for the discharge seen clear
  Floor drains, trenches, curbs or containment the discharge is designed to run to seen clear of debris and storage, so a release or test flow has somewhere to go.
  1 photo required

Valve and supervision

- [ ] Valve position and supervision checked
  Main control valve open and supervised, tamper confirmed reporting to the panel, the operating and reset instruction plate legible at the valve.
  1 photo required

- [ ] Alarm pressure switch operated through the alarm test valve
  With the deluge valve left closed, alarm test valve opened until the pressure switch or water motor gong operates and the panel shows waterflow, then shut and the alarm line drained.
  1 photo required

- [ ] Foam concentrate and proportioner valves checked where fitted
  On foam-water systems, concentrate tank level read against its mark and the proportioner and concentrate valves in their normal positions, no leaks at the concentrate piping.
  No photo required

Return to service

- [ ] Panel normal and deluge trim back in position
  Panel showing no waterflow, supervisory or trouble condition standing, alarm test valve shut, and priming and pilot pressures back at their normal readings.
  1 photo required

- [ ] Monitoring company and owner told the deluge system is restored
  Monitoring company confirms signals came through and the account is off test, the owner and the hazard's operator told, and any impairment closed in the owner's log.
  No photo required