

QC Plumbing-Facility Water Distribution Piping Checklist

Section 22.11.13

i Facility Water Distribution Piping addressing installation, integration, and safe operation of related assemblies and systems for reliable facility performance. Scope emphasizes testing, piping, pipe, specified, with field verification confirming compliance with performance, safety, and quality standards.

Pipe materials, pressure class, and NSF 61 certification match approved submittals prior to installation.

✓

QC

OPN

NA

Observations

Pipe joint methods (threaded, soldered, brazed, grooved, flange, solvent-weld) performed by qualified personnel using specified consumables produce fully sealed joints free of visible defects.

✓

QC

OPN

NA

Observations

Minimum 10-ft horizontal and 18-in vertical separation between potable water piping and sanitary sewer lines maintained with sleeving at crossings where separation cannot be achieved.

FTQ

QC

✓

NA

Observations

Underground metallic water piping protected with dielectric coatings, polyethylene encasement, or cathodic protection per specification before backfill is placed.

✓

QC

OPN

NA

Observations

Concrete thrust blocks or mechanical joint restraints installed at all changes in direction, tees, valves, and dead ends, sized per calculated reaction forces bearing against undisturbed soil.

✓

QC

OPN

NA

Observations

Pipe hangers, supports, and guides installed at code-required spacing and of specified type to prevent sagging and maintain alignment.

✓

QC

OPN

NA

Observations

Domestic water piping pitched to allow complete drainage and to eliminate air pockets where air-release valves are not provided.

FTQ

✓

OPN

NA

Observations

Isolation, balancing, and check valves installed with stems accessible, correct flow orientation, full pressure rating, and permanent identification tags attached.

✓

QC

OPN

NA

Observations

Piping system flushed at flow velocity minimum 3 ft/s until discharge runs clear and free of debris before pressure testing.

✓

QC

OPN

NA

Observations

Hydrostatic pressure test conducted at 1.5 × operating pressure (minimum 100 psi) for not less than 2 hours with zero measurable pressure loss or leakage recorded.

FTQ

QC

✓

NA

Observations

Potable water piping disinfected using 50-ppm free chlorine solution for 24 hours, flushed, and bacteriological test results documented as negative prior to service.

✓

QC

OPN

NA

Observations

Pipe insulation installed with specified thickness, continuous vapor barrier, and sealed longitudinal and butt joints to prevent condensation and energy loss.

✓

QC

OPN

NA

Observations

Pipe penetrations through fire-rated assemblies sleeved with annular space sealed by listed firestop system matching rating of assembly.

✓

QC

OPN

NA

Observations

Identification labels with service name, pressure classification, and flow direction applied at maximum 20-ft intervals and at both sides of penetrations and valves.

✓

QC

OPN

NA

Observations

Flexible connectors or seismic loops installed at building entries and equipment connections to accommodate differential movement specified by structural design.

✓

QC

OPN

NA

Observations