

QC Heat Tracing for Plumbing Piping Checklist

Section 22.05.33

i Heat Tracing for Plumbing Piping addressing installation, integration, and safe operation of related assemblies and systems for reliable facility performance. Scope emphasizes cable, heat trace, insulation, piping, with field verification confirming compliance with performance, safety, and quality standards.

Heat-trace cable type, watt density, and temperature rating correspond to approved submittals and service conditions for each piping system segment.

156530898

✓QCOPNNA📷☰

Observations

Heat-trace cable installed in a continuous run without field splices except at manufacturer-approved splice kits located outside insulation.

156530899

FTQ✓QCOPNNA📷☰

Observations

Cable routing follows lower quadrant (4 or 8 o'clock position) of pipe circumference with full contact and without crossing or overlap.

156530900

✓QCOPNNA📷☰

Observations

Cable attachment utilizes manufacturer-approved fiberglass tape or stainless-steel tie wire at specified intervals; no plastic zip ties present.

156530901

✓QCOPNNA📷☰

Observations

Minimum bend radius of heat-trace cable maintained at fittings and bends per manufacturer requirements; no sharp kinks observed.

156530902

FTQ✓QCOPNNA📷☰

Observations

Specified insulation thickness and type installed over heat-traced piping before energizing; vapor-barrier seams sealed and intact.

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✓QCOPNNA📷☰

Observations

Power connection kits, end seals, and splice kits installed watertight, fully insulated, and model numbers match cable type.

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✓QCOPNNA📷☰

Observations

Branch circuit breakers sized for calculated inrush and steady load amperage with ground-fault protection and panel labeling "Heat Trace".

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✓QCOPNNA📷☰

Observations

Control thermostats or ambient-sensing controllers mounted, wired, and calibrated to specified setpoints; temperature sensors bonded to pipe.

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Observations

Insulation-resistance (megger) test performed and recorded before insulation, after insulation, and after 30 minutes energization; results >=20 MOhm or project minimum.

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Observations

Circuit continuity and operating amperage measured with values logged within +/-10% of design load for each heat-trace circuit.

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✓QCOPNNA📷☰

Observations

Identification labels and orange "Electric Heat Trace—Do Not Cut" tape installed on exterior of insulation at maximum 10 ft intervals and within 1 ft of terminations.

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✓QCOPNNA📷☰

Observations

Heat-trace loops or heating pads provided at valves, flanges, and expansion joints to eliminate cold spots per detail drawings.

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Observations

Heat-traced piping in classified hazardous locations utilizes cables with correct T-rating and area classification; certification documents available on site.

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Observations

i Note to QA Engineer: To refine your checklist template, turn on any of the approximately 20 hidden checkpoints that apply, turn off any unnecessary checkpoints shown above, and add your own checkpoints and data collection tables.