

CITY OF GARDEN PLAIN, KANSAS
STANDARDS AND SPECIFICATIONS FOR GAS YARD LINES & METER SETS

All gas yard lines shall be installed, repaired or replaced in accordance with the standards and specifications herein and in accordance with the rules and regulations as set forth in the city's OQ, and O&M Manuals, Kansas Pipeline Safety Regulations, DOT regulations, and City Gas Ordinances.

COMPLIANCE REQUIREMENTS

Whenever any existing yard line requires repair or replacement, the line shall be brought into compliance with the Kansas Pipeline Safety Regulations and these standards.

PERMIT, LICENSE AND DRUG TESTING

All yard line installations, replacements and repairs shall be done by a plumber licensed by Sedgwick County or any other county whose license is honored by Sedgwick County. A permit shall be required for all installation, replacements or repairs. Before a permit shall be issued, the plumber shall provide proof of participation in a drug testing program which meets the federal drug testing regulations required by the Kansas Office of Pipeline Safety and Department of Transportation. Such certification shall be provided for all plumbing employees who will be working on said installation, repair or replacement and shall be permanently maintained on file in the city offices along with a copy of the permit. If unable to provide certification, no permit shall be issued and plumber shall not be allowed to work on any yard lines, service lines or mains on the city's gas distribution system.

EXCEPTION TO DRUG TESTING: Until amended by further action of the Office of Pipeline Safety, new installation of a yard line where no previous service has been provided shall not require certification of drug testing.

ONE-CALL NOTIFICATION

All persons who plan to excavate or dig in the state of Kansas are required to contact Kansas One Call at 811 or 1-800-DIG-SAFE.

MATERIAL IN GENERAL

Gas yard lines shall be constructed of approved polyethylene (PE) pipe as defined herein. PVC will not be allowed, and steel can only be used above ground.

METERS

All meters shall be installed by qualified city personnel or its qualified contractor. Multi-family dwellings shall be required to have a separate meter for each individual unit.

METER GUARDS & FENCING

The city may, if it deems necessary, require consumers to provide fencing or guard rails around any meter or regulator station. Such fencing or guard shall be constructed so as to provide immediate and easy access to city, or emergency response personnel, as

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well as provide adequate protection to the meter or regulator station. All customer installed guards or fencing shall be installed in a manner as to provide adequate clearance (at least one foot clearance in all directions) from the meter to facilitate maintenance and emergency operations.

SIZE

Yard lines shall be no less than 1" inside pipe diameter, but it is highly recommended that the line be 1-1/4" IPS. Customers requiring a larger line shall have the line sized according to B.T.U. requirements.

ABOVE GROUND ENTRY

All gas lines shall be brought above grade before entering the building to be serviced.

YARD LINE SHUTOFF VALVE

A gas cock (shutoff valve) shall be installed above grade at the outside of the building wall. It shall be a good quality, iron body, brass plug, and tamper resistant service valve with screwed connections.

Gas piping supplying more than one (1) building on any one premises shall be equipped with separate shut-off valves to each building so arranged that the gas supply can be turned on or off to any individual or separate building. Such shut off valve shall be located outside the building it supplies and shall be readily accessible at all times.

No person shall extend yard lines from one property or street number to another.

INSPECTIONS

All yard line installations and repairs shall be inspected by the Gas System Superintendent. No line shall be covered until inspection is completed.

Inspections shall include an air, CO₂ or nitrogen pressure test of not less than fifty (50) psi gauge pressure. Test pressures shall be held for a length of time no less than thirty (30) minutes, with no perceptible drop in pressure. These tests shall be made in the presence of the Gas System Superintendent. All necessary apparatus for conducting tests shall be furnished by the permit holder and be approved by the Gas System Superintendent.

If upon inspection, the material or installation does not comply with the standards and specification for yard lines, the persons responsible for the installation or repair shall be required to make such changes as deemed necessary. No gas service shall be provided until installation or repair is brought into compliance.

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When gas service has been abandoned to any premises for a period of three (3) months or more, the customer shall be required to pressure test the yard line as provided for in the standards and specifications before service shall be resumed.

MATERIALS

Pipe and fittings shall conform to the appropriate standards in Table A of the Standards for PE, IAPMO IS 12-85 in the U.P.C.

PIPE

Only approved Polyethylene pipe shall be used for the construction of gas yard lines. No poly pipe shall extend above the ground.

POLYETHYLENE (PE) PIPE

DEPTH

Yard lines shall have a minimum cover of 24 inches below finished grade.

RISERS

Anodeless Risers shall be used on all yard line installations. The riser shall extend approximately 12" above finished grade elevation at the meter location. The riser shall be an approved make constructed of epoxy or plastic-coated steel which is not subject to electrolytic corrosion and requires no anode. The anodeless riser shall connect to the poly pipe by heat fusion only. Compression fittings below ground will not be allowed. All service riser pipes shall be installed with 90 degree long bends, tube-turn type, where riser pipes turn upward and be a minimum of one (1) inch inside pipe diameter outlet size. One and on quarter inch (1-1/4") is highly recommended.

JOINTS

No mechanical joints shall be allowed below ground level.

Joining shall be by heat fusion or electrofusion performed as recommended by the manufacture. Joining shall be done by a person qualified to perform such fusion techniques. That person shall provide satisfactory verification of qualification to perform said task, dates of qualification and re-qualification, and qualification procedures.

PE pipe shall not be threaded. Joints made with adhesives and solvent cement are prohibited. Only compression fittings approved by the Gas System Superintendent shall be permitted.

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MARKINGS

Pipe shall be marked at intervals not more than 2 feet with at least the following:

1. Manufacturer's name or trademark
2. ASTM D2513
3. Pipe size
4. PE 2406 for 1-1/4" pipe size
5. SDR number
6. Quality control ID markings
7. Gas
8. Pipe listed by IAPMO that is covered by this standard shall be labeled with the designated IAPMO certification mark to show conformance with this standard.

Fittings shall be marked with at least the following:

1. Manufacturer's name and trademark
2. Size
3. Material designation
4. Fittings listed by IAPMO that are covered by this standard shall be labeled with the designated IAPMO certification mark to show compliance with this standard.

The identifying markings on pipe and fittings shall be visible for inspection without moving materials.

Unprotected pipe should not be stored in direct sunlight. The pipe shall be stored in a way to protect it from mechanical damage (slitting, puncturing, etc.) Exposure to sunlight during normal construction periods is not harmful.

TRACE WIRE

A number 12 gauge, copper, yellow plastic coated, solid, single strand wire shall be installed with non-metallic gas piping. Tracer wire shall terminate approximately twelve (12) inches above grade at both risers. Tracer wire shall be buried at 18 inches with 6 inches of fill over pipe. Tracer wire shall not be taped or attached to any portion of the underground PE yard line.

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THERMAL EXPANSION

The pipe shall be “snaked” in the trench bottom with enough slack to provide for thermal expansion and contraction before stabilizing. The normal slack created by residual coiling is generally sufficient for this purpose. If, however, the pipe has been allowed to straighten before it is placed in the trench, 6 inches per 100 feet of pipe length shall be allowed for this purpose.

Pipe temperature shall be stabilized by one of the following methods:

1. Shade backfill. Leave all joints exposed so they can be examined during the pressure test.
2. Allow to stand overnight

TRENCHING AND BACKFILL

Trench bottoms shall be smooth and regular of either undisturbed soil or a layer of compacted backfill so the minimum settlement will take place. Pipe shall not be wedged or blocked. Voids shall be filled and compacted to level of trench bottom. The minimum cover shall be 24 inches below finish grade. Sand fill, gravel or rock will not be permitted as backfill on a PE yard line installation. Pipe shall be stabilized before backfilling.

STABILIZATION

Pipe shall be stabilized before testing and backfilling.

LOCATION

PE pipe shall be installed only outside the foundation of any building or structure or parts thereof. It shall be buried with a minimum ground cover of 24 inches. It shall not be installed within or under any building or structure or mobile home or commercial coach or parts thereof.

STEEL PIPE CONNECTIONS

Only approved black iron pipe nipples and fittings shall be used on the risers. All pipe connections shall be threaded. No steel pipe shall be used under ground. An appropriate pipe sealant shall be used on all steel pipe joints. No galvanized pipe or pipe fittings shall be used in the installation or repair of a gas yard line.