Sec. 16-11-42. Gas system construction and maintenance

- (a) The gas company shall maintain its entire plant, and all facilities owned or operated by it and used in furnishing gas, in such condition as to render adequate and continuous service. Every gas company shall at all times use every effort to properly protect the public from danger and shall exercise due care to reduce the hazards to which employees, customers and others may be subjected by reason of its equipment and facilities.
- (b) Unless some other material is approved by the commission, cast iron, wrought iron, steel or copper shall be used for mains and services in low pressure and intermediate pressure systems, and wrought iron or steel in pressure systems operated in excess of one hundred pounds per square inch gauge.
- (c) Mechanical or flexible couplings shall be used on cast iron mains and services, but cement or lead joints may be used when soil conditions assure satisfactory foundations.
- (d) Flexible couplings or welded joints shall be used on wrought iron or steel mains and services but screwed couplings may be used for pipe four inches in diameter or less.
- (e) Provisions for expansion, by expansion joints or otherwise, shall be made where necessary on runs of exposed pipe.
- (f) As far as practicable, all pipe shall be laid below average frost line but for cast iron pipe the top of the bell shall be a minimum of thirty inches below the ground surface.
- (g) Whenever normal excavation discloses unsatisfactory foundation, one or more of the following corrective measures shall be adopted: (1) Excavate to good bearing soil and backfill to pipe grade with suitable material well tamped to provide adequate support; (2) support with a concrete slab; (3) support with piling; (4) use steel or wrought iron pipe with flexible couplings and, in unusually wet or corrosive soil, treat the steel pipe with a protective coating.
- (h) Pipe on a highway bridge shall be so located and protected as to reduce hazard to a minimum.
- (i) All gas mains shall be laid clear of all other underground structures and shall not be laid in the same trench with other underground utilities in order to minimize the possibility of gas leakage by reason of any movement of such structures or of the mains. Gas services may be laid in the same trench with other underground utilities, with the exception of sewer pipes, provided such service pipes are laid at least twelve inches in a horizontal plane from other underground facilities. At crossings of mains and services with other underground structures clearances shall be not less than twelve inches. To secure compliance with the requirements of these regulations by others doing underground construction work, the gas companies should arrange with the other agencies having highway subsurface rights for adequate notification and inspection procedure.
 - (j) Pipe laid shall be tested and made tight before being placed in service.
- (k) The ditch underneath, around and over the pipe shall be backfilled with good material thoroughly tamped to secure a firm support. To disclose any settlement of the backfill which may need correcting, newly filled ditches shall be reinspected at intervals for sufficient period of time subsequent to completion of backfilling operations.
- (*l*) Service connections may be tapped into cast iron mains if the diameter of the hole does not exceed one-quarter of the diameter of the main, otherwise, and in mains other than cast iron, a saddle, sleeve or welded connection may be used or a tee cut into the line.

- (m) The service connection at the main or the run of service pipe shall allow for a reasonable amount of flexibility to prevent fracture or leaks at the connection with the main.
- (n) At entrances to foundation walls or to regulator or valve pit walls, the pipe shall be protected against corrosion.
- (o) Regulator pits and valve pits shall be constructed to safely sustain any reasonable load imposed thereon, and with sufficient foundation depth and stability to minimize the possibility of breaks in the pipe lines at the wall entrances.