CONSTRUCTION STANDARDS FOR SERVICE LINES

(Gas line between the Main and the Meter)

Hughes Natural Gas, Inc. ("HNG") 31830 S.H. 249, Ste A, Pinehurst, TX 77362 (281) 766-1290

Hughes Natural Gas, Inc. ("HNG") is not financially responsible for the construction and installation of new service lines, which connect the gas main along the street to the meter located at the house.

It is the responsibility of the homeowner to construct the service line according to HNG's construction standards. After the line is inspected to ensure construction standards have been satisfied and the homeowner certifies construction costs have been paid in full, HNG will tie the service line into the meter set, put the line in service and take possession of the line. HNG will maintain responsible for maintenance of the service line in the future.

You may choose any contractor, who is qualified, to complete the construction of your service line.

HNG's construction standards for service lines are as follows:

A) HNG must approve the system design and material selection prior to the start of construction. System design will be dependent on the planned indoor and outdoor appliances for this location.

B) All contractors laying service lines and locator wire, performing fusion welds, or tapping the HNG mains along the street must be qualified in accordance with 49 CFR 192 Subpart N (gas pipelines) and must be fully Qualified and Field Tested under the HNG Operator Qualifications (OQ) and the Inspection, Operations, Maintenance and Emergency (O&M) tasks and procedures.

C) All contractors must provide adequate liability insurance and a certificate naming HNG as additionally insured.

D) All contractors must participate in the HNG drug and alcohol testing program. The drug and alcohol testing program is in compliance with PHMSA 49 CFR Part 199 and DOT 49 CFR Part 40.

E) Service Line Composition and Detail:

- The gas inlet (stub-out) at the side of the home or building must be located a minimum of 5 feet away from any source of ignition (i.e., an electrical panel or air conditioner, etc).
- The service line must be installed in its own trench, at a minimum of 3 feet away from any underground electrical conduit, except where crossings occur. At a crossing, the underground electrical must cross at a 90 degree angle to the gas line.
- The entire length of pipe including all pipe joints must be inspected by HNG personnel or its authorized representative before the trench is backfilled. The <u>minimum cover</u> is eighteen (18) inches.
- The service line is to be installed in such a manner that the expansion and contraction of the pipe will not cause stress on the joints. This is accomplished by "Snaking" the pipe into the trench. "Snaking" means that the pipe is not laid in a straight line in the trench; instead, it is placed in a wiggly, curving, side to side manner, thus allowing sufficient length of pipe for expansion and contraction to occur without damage to the pipe. Snaking pipe along the bottom minimizes shear and tensile stress. The pipe is to be supported underneath. All backfill placed around the pipe shall be free of rock to prevent damage to the pipe during compaction.
- The entire service line shall be composed of polyethylene plastic pipe (minimum ³/₄" diameter), and be marked with the designation ASTM D2513. Preferably, no joints or splices will be made in the service line from the main to the meter. If a joint is required, the only acceptable method that can be used is fusion welding; **No mechanical or compression connections are allowed.**
- <u>To become certified to complete fusion welds</u>, the operating personnel producing the welded joints must attend a class conducted by a trained instructor, where the physical properties and characteristics of plastic pipe are explained and fusion procedures reviewed. These sessions should be followed by "hands-on" instruction of socket, butt and saddle fusions. Welded joints must be graded by a trained inspector for stress tests and qualitative testing of strips cut from the joints.

• HNG must be provided a current valid Welding certification issued by a training class approved by the Texas Railroad Commission

• A continuous vinyl coated tracer/locator wire (minimum 14 gauge) is to be installed along with the pipe. This wire should be looped above the ground at the house and at the main so that detection equipment can be connected. The locator wire shall be installed in one length; No connections/splices in the locator wire are allowed. Such tracer wire shall be checked for continuity and witnessed by HNG or its designee.

• All materials must be chemically compatible with natural gas as well as resistant to any external chemical influence. Polyethylene (PE) pipe must be marked with the designation ASTM D2513, the manufacture's name or trademark, the nominal pipe size, the plastic pipe institute (PPI) plastic pipe designation code and the standard dimension ratio (SDR) or wall thickness. All plastic fittings must be marked with the manufacturer's name or trademark, size and the symbol for the type of material.

F) A pressure chart, in electronic form, must be provided indicating that the pipe and all joints including risers used in the service line have been pressure tested at 90 P.S.I.G. (but not more than 180 P.S.I.G.) for at least 10 minutes. The temperature of the plastic shall not be more than 100 F. during the testing procedure.

G) Job records must be provided detailing date, time and identity of each worker performing construction tasks on the service line including a list of parts and materials. Bid packages, job books and job records are subject to periodic audit by HNG personnel to ensure the accuracy of the job records provided.