PROCEDURES
STEEL PIPE / GAS FLOW CONTROL

5.0 PURPOSE

During installation and repairs to steel mains and services, the following approved methods may be used for safely controlling the flow of gas.

5.1 SCOPE

A. Squeezing
B. Valves
C. Stopple Fitting / Service Connection
D. Repair Clamps

5.2 SQUEEZING

Steel pipe (2” and less) - Hydraulic squeezer method may be used for controlling the gas flow for damaged steel pipelines 2” and less.

A cold squeeze shall not be reopened, but may be left in an active piping system provided the line is 2" or smaller, the Maximum Allowable Operating Pressure (MAOP) of the line is 125 psig or less, and reinforcement is installed.

A. Preparation - prior to squeezing, the following procedures should be followed:

1. Select a location remote from a gaseous area when possible.

2. Clean the existing wrap, primer, rust and/or scale from pipe approximately 18" in length.

3. Examine squeeze area for location of excessive pitting.

4. Locate seam, if possible and mark with soapstone.

5. Squeeze shall be at least one pipe diameter from any weld.

B. Cold Squeezing Method

1. Assemble squeezer on pipe.

2. Use approved grounding cables to control static electricity (Refer to Section

B-6 of this Manual).

3. Open needle valve on squeezer.

4. Open the pump valve until the squeezer piston is fully retracted, then close the valve. Open vent on pump reservoir.

5. Place squeezer on pipe.

6. Insert the lower jaw through side rail slot with notches down until they fit over side rails.

7. Slide upper jaw through side rail slots over pipe all the way to the stop. Lock upper jaw in place.

8. Center squeezer over squeeze point, hold square to the pipe and operate pump slowly and with caution.

NOTE: Squeezer without gauge must be used with caution to avoid squeezing the pipe in half. Apply only enough pressure to secure a squeeze shutoff.

5.3 VALVES

Valves may be used for controlling the gas flow for damaged steel pipelines. Always gain supervisory approval before operating any valve to avoid possible customer outage.

Refer to Section G of this manual for detail procedures

5.4 STOPPLE FITTINGS

For steel main lines sizes 1" through 8" gas flow may be controlled by use of existing or installed line stopper fittings. For services, the service-to-main connection may be used to control gas flow.

A. Fitting type can be selected with the following considerations:
- Safety
- Pressure ratings
- Economics

B. When replacing a section of main using one or more line stopper fitting(s), all line stopper fittings shall be welded and operated by qualified personnel only.
- Select location for installing fitting or fittings on main.
- If pipe is leaking, make temporary repair or select location out of gaseous atmosphere.
- Fitting(s) should be installed on clean pipe that is free of corrosion or excessive pitting.
- It is recommended that fittings should be installed at least one pipe diameter from a weld. Fittings shall not be installed on a weld under any circumstance.
- Follow appropriate procedures for controlling static electricity.
- Flash bell hole before welding starts.

Refer to Section M of this Manual for detail procedures.

5.5 REPAIR CLAMPS

Steel gas line leaks can be temporarily or permanently repaired by using the appropriate leak repair clamp. Refer to Manufacturers Guidance Manual or this section for procedures and the selection chart for various types of leak repair clamps with their pressure rating and size range. **Refer to section D–6 of this Manual for approved installation procedures.**

5.6 BYPASSING

A. When a temporary bypass is required on a main or service, it should be in place and verified that its operational by use of purge stack, gauges, and placing a demand on the system before the existing line is taken out of service to avoid possible customer outage.

NOTE: When necessary, contact the Engineer to determine size of bypass needed.

5.7 SAFETY

A. Every effort shall be exercised to prevent entering area of blowing gas.

B. The preferred method to control escaping gas is to drop back a safe distance to control gas flow either be squeezing or by use of valves.

C. Should the situation require entering an area of escaping gas, the appropriate fire

protection steps shall be implemented. **Refer to Section B-2.**