SMALL GAS OPERATOR
OPERATION AND MAINTENANCE PLAN

Facility Name: _____

Address: _____

QUALIFIED PERSONNEL

All tasks shall be completed by a person that is qualified to that task (see operators qualification of individuals and record of qualifications) record shall be maintained for a period of five (5) years. This is per CFR 192.801, Sub Part N.

OPERATING PROCEDURE

The personnel responsible for the operation and maintenance of the gas system must be trained in the use of the procedures contained in this Operation and Maintenance Plan. The plan will be reviewed once each calendar year not to exceed 15 months by all applicable personnel. A record of review will be maintained (See attachment 2).

DISTRIBUTION SYSTEM

The distribution system consists of the following:

	Pipe Section 1	Pipe Section 2
Type Material		
Diameter of Pipe		
Ft Above ground		
Ft Below ground		
Total feet		
Date Installed		

ODORIZATION

Gas odorant will be verified through a written statement of odorization from the gas supplier.

LEAKAGE SURVEYS

There shall be a gas detector leak survey conducted on all exterior portions of the operator's gas distribution system at intervals not exceeding 15 months, but at least once each calendar year or once every 5 calendar years not exceeding 63 months , depending on the location of the operator. All leaks will be repaired promptly. A record will be made of all leaks and repairs (See attachment 2).

VALVE MAINTENANCE ON DISTRIBUTION SYSTEMS

Exterior key valves in the distribution systems shall be inspected, operated, and lubricated (if necessary) at intervals not exceeding 15 months, but at least once each calendar year (See attachment 2).

CORROSION CONTROL

Metal piping systems will be protected from the effects of rust (corrosion).

Above ground piping and below ground piping must be electrically separated by the use of isolation unions (unions that have a non-conductive electrical gasket separating the two parts).

Above ground piping will be protected by the use of coatings (painting) of the pipe. This will place a barrier between the pipe and the outside elements. This protection must be suitable to prevent corrosion caused by moisture, i.e.: rain, fog, sprinklers, coolers, or any other source of water.

Below ground metal piping will be protected from the effects of rust through the use of cathodic protection. Cathodic protection is a procedure in which underground metal piping is protected from corrosion by either sacrificial anodes or the use of special anodes and an electrical rectifier. To achieve

and maintain corrosion prevention of underground metal piping, electrical readings of the pipe-to-soil must be taken once each calendar year not to exceed 15 months between tests.

Electrical readings are measured with the use of a voltmeter and a reference cell (copper sulfate cell). The voltmeter has two test leads which are red and black in color. The red test lead is connected to the positive terminal of the voltmeter (indicated by red) and to the reference cell. The black test lead is connected to the common terminal of the voltmeter (indicated by black) and to the pipe. The voltmeter must be set to read, Direct Current Volts, which will be indicated on the display screen by the symbol VDC. Electrical readings indicated by the voltmeter shall be a minimum of 0.85 volt. Anytime a reading is less than 0.85 volt, investigation and repair will be completed to ensure the continued prevention of corrosion.

Electrical readings must be taken at a sufficient number of locations and near mid-points between sacrificial anodes to assure steel piping is being adequately protected (See attachment 2).

DAMAGE PREVENTION

No person or company shall begin any excavation on the operator's properties before notifying the operator. When notified of an excavation, the operator will locate their natural gas lines as local rules require. All marks for gas lines will be yellow in color. Location requests will be documented.

INVESTIGATIONS OF FAILURES

Reportable failures and accidents are to be reported to the Utah Office of Pipeline Safety, by telephone, as soon as possible at (801) 530-6673.

If it is determined that the location of gas facilities contributed to an accident or failure, action will be taken to minimize the possibility of recurrence.

REPAIR METHODS - PLASTIC AND METAL

Repairs will only be completed by persons with training and experience. If such personnel are not available, arrangements will be made with a qualified gas contractor or gas company to perform such work. All work will comply with Title 49, CFR part 192. Records should be maintained for all repairs made to the operator's natural gas system. (Records should be maintained for the life of the system)

ABANDONMENT OF DISTRIBUTION GAS LINES

If the gas lines are to be abandoned in place, they shall be physically disconnected from the gas system. The open ends of the lines shall be plugged or capped. Purging the abandoned lines, to prevent the development of a potentially hazardous condition, will be done by filling the line with water or an inert material. Abandoned gas lines shall be indicated on the system maps.

All gas valve boxes shall be filled to grade with sand or a suitable substitute.

DISCONTINUED SERVICE

Whenever gas service to a unit is discontinued, one of the following will be complied with:

1) The valve that is closed to prevent the flow of gas into the unit must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator.
2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line riser.
3) The unit must be physically disconnected from the gas supply and the open pipe sealed.

PRESSURE TEST REQUIREMENTS

Each new, replacement, reinstated or uprated pipe will be subjected to the pressure test required in accordance with 49 CFR 192, prior to being filled with gas and put in service.

Systems operating below one (1) PSIG: (Steel and Plastic)

*Steel: Test at 10 PSIG for one hour. Test gauge shall be a minimum of 30 PSIG and calibrated on 1/10 PSIG increments.

*Plastic: Test at 60 PSIG for one hour. Test gauge shall be a minimum of 100 PSIG and calibrated on 1 PSIG increments.

*If tests are required by local jurisdictions, tests shall be that which is more restrictive.

System operating at one (1) PSIG or greater:

This test consists of putting 60 PSIG or 1 1/2 times the MAOP of the system, whichever is greater on the line after it has been fabricated and placed in the trench and **just prior to making the tie-in connections.** The test pressure will be applied, given time to stabilize and test observed for the time duration of one hour (test gauge shall be calibrated on one (1) PSIG increments).

Each pressure test will be recorded.

SERVICE REGULATORS

Regulators will be inspected for proper operation each time it is changed or turned on.

RECORDS KEEPING PROCEDURES

Records will be maintained and readily available on all new piping system installations, repairs and/or changes to existing piping systems in sufficient detail to provide historical information, physical location, design ratings, and any other pertinent data necessary for the safe and continuous operation and maintenance of the system and should be filed as a permanent record for the life of the system.

SYSTEM MAPS

System maps should be updated on as needed basis. Current map will be detailed enough to conduct a complete survey of the gas system.

PREVENTION OF ACCIDENTAL IGNITION

Each operator shall take the necessary actions to minimize and or eliminate all sources of ignition in all environments where the presence of natural gas or propane vapors may constitute a hazard of fire or explosion.

Every operator must develop a procedure to address the prevention of accidental ignition covering any task on the pipeline that may result in the release of natural gas or propane including but not limited to; venting, purging, tapping, cutting, repairing and replacing pipeline, etc.

Attachment 1

PUBLIC SERVICE COMMISSION OF UTAH
Pipeline Safety Section

MAINTENANCE SCHEDULE

TASK DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1. Emergency Plan Review (192.605)												
2. O & M Plan Review (192.605)												
3. Gas Leak Survey Record (192.723												
4. Gas Leak Repair Record												
5. Valve Inspection Record (192.747)												
6. Corrosion Control Test Data (192.465, 192.481)												

REQUIRED INTERVALS:	Emergency Plan Review (a), O&M Plan Review (a), Gas Leak Survey (a) or (b), Corrosion Control Test (a) and/or (c),Valve Inspection (a), Odorant Certification (one time), Record Repairs (d)

(a) = Once each calendar year with intervals not exceeding 15 months

(b) = Once every 5 calendar years at intervals not exceeding 63 months, depending on location.

(c) = Once every 3 calendar years, at intervals not exceeding 39 months

(d) = Whenever repairs are made,

Record inspection data on appropriate forms.

Attachment 2

Year:		Review Records	

Emergency Plan Review Record			
Date	**Name/Title**	**Signature**	**Title**

Operation & Maintenance Review Record			
Date	**Name/Title**	**Signature**	**Title**

Gas leak Survey Record			
Date	**Area Surveyed**	**Survey By**	

Valve Inspection Record			
Date	**Valve ID**	**Inspected By**	

Corrosion Control Record			
Date	**Location**	**Pipe/Soil Reading**	**Tested By**

Odorization Certification From Gas Supplier			
Date of Request	**Date of Receipt**		

Gas Leak Repair Record			
Date	**Location**	**Repaired By**	