FAIRBANKS NATURAL GAS, LLC
3408 International Way • Fairbanks, Alaska 99701 • (907) 452-7111 • FAX (907) 457-8111

RE: NOTICE OF AMENDMENT – CPF 5-2015-3001M

CERTIFED MAIL – RETURN RECIPT REQUESTED

January 25, 2016
Mr. Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration
12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

CPF 5-2015-3001M

Dear Mr. Hoidal

In response to the NOTICE OF AMENDMENT dated December 23, 2015, Fairbanks Natural Gas, LLC (FNG), provides the following response.

1. **Fairbanks Natural Gas (FNG) did not establish adequate written procedures for defining an "incident" as required by §191.3. At the time of inspection, FNG's procedure for defining an "incident" did not include the requirement for reporting a gas loss of 3 million cubic feet or more as an incident. Meanwhile, §193.2011 requires an Operator to report an incident in accordance with the requirements of Part 191. FNG's procedure was inadequate because its Reporting criteria for an "incident" did not clearly describe unintentional estimated gas loss of three million feet or more as required by §191.3(1)(iii).**

FNG has revised its Standard Operating Procedure (SOP) No. 1005 – Reporting (attached) to include "Unintentional estimated gas loss of 3 million cubic feet or more".

2. FNG did not establish adequate written procedures for recognizing the safety-related conditions as required by §193.2605(c). At the time of inspection, FNG's procedures were inadequate because FNG did not have instructions on how to recognize the safety-related conditions that are subject to the reporting requirements of §191.23.

FNG has revised its SOP No. 6230 – Abnormal Operating Conditions (attached) to include recognition of an event resulting in "Any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes gas or LNG to rise above its maximum allowable operating pressure (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure limiting or control devices." Other safety related conditions requiring reporting, are either not applicable to FNG or are addressed in one of the following FNG SOP's:

SOP No. 1105 – Emergency Operating Plan - Distribution (Attached)
SOP No. 1106 – Emergency Shutdown and Restoration of Gas Pipeline Facilities (Attached)
SOP No. 1110 – Emergency Operating Plan – LNG Storage Facility (Attached)

Sincerely,

Dan Britton, President / CEO
Fairbanks Natural Gas, LLC

Attachments: FNG SOP No. 1005 – Reporting
FNG SOP No. 1105 – Emergency Operating Plan – Distribution
FNG SOP No. 1106 – Emergency Shutdown and Restoration of Gas Pipeline Facilities
FNG SOP No. 6230 – Abnormal Operating Conditions

Title: Reporting
S.O.P. No.: 1005 **Revision No.: 006** **Effective Date: 1/25/2016** **Page 1 of 5**

General

This section will describe and detail the reporting requirements of FNG's distribution and LNG storage and vaporization facilities.

Reporting an Incident

1. The President, or assigned personnel, shall report at the earliest practicable moment any event defined as an *incident*. An incident means any of the following events:

   A. An event that involves a release of gas from a pipeline or of liquefied natural gas from an LNG facility and

      (1) A death, or personal injury necessitating in-patient hospitalization.

      (2) Estimated property damage, including cost of gas lost, of the operator or others, or both, of $50,000 or more.

      (3) Unintentional estimated gas loss of 3 million cubic feet OR more.

   B. An event that results in an emergency shutdown of an LNG facility.

   C. An event that is significant, in the judgment of the operator, even though it did not meet the criteria above.

2. The report shall be made by telephone to National Response Center (NRC) at 1-800-424-8802 or online at www.nrc.uscg.mil/nrchp.html, as soon as practical.

3. The reporter shall include the following information:

   A. Names of operator and person making report and their telephone numbers

   B. The location of the incident

   C. The time of the incident

   D. The number of fatalities and personal injuries, if any

   E. All other known significant facts that are relevant to the cause of the incident or extent of the damages.

4. The President shall submit a written report, Form RSPA F 7100.1, as soon as practicable, but not more that 30 days after detection of incident, except those involving LNG facilities.

Annual Reports

The Operations Engineer shall submit the following:

1. Form RSPA F 7100.1, the distribution annual report, not later than March 15 of that year.

2. Drug and Alcohol MIS report no later than March 15 of that year.

3. Report to NPMS once a calendar year to inform office of updates or changes to facilities.

Definition of a Safety Related Condition

A Safety Related Condition exists when any of the following situations occurs:

1. In the case of a pipeline (other than an LNG facility) that operates at:

   A. A hoop stress of 20 percent or more of its specified minimum yield strength.

   B. General corrosion that has reduced the wall thickness to less than that required for the maximum allowable operating pressure.

   C. Localized corrosion pitting to a degree where leakage might result.

   D. Any material defect or physical damage that impairs the serviceability of a pipeline.

2. Any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes gas or LNG to rise above its maximum allowable operating pressure (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure limiting or control devices.

3. Unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability of a pipeline or the structural integrity or reliability of an LNG facility that contains, controls, or processes gas or LNG.

4. Any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes gas or LNG.

5. A leak in a pipeline or LNG facility that contains or processes gas or LNG that constitutes an emergency.

6. Inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank.

7. Any safety-related condition that could lead to an imminent hazard and causes (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent or more reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes gas or LNG.

8. A report is NOT required for any safety-related condition that:

   A. Exists on a master meter system or a customer-owned service line.

   B. Is an incident or results in an incident before the deadline for filing the safety-related condition report.

   C. Exists on a pipeline (other than an LNG facility) that is more than 220 yards from any building intended for human occupancy or outdoor place of assembly, except that reports are required for conditions within the right-of-way of an active railroad, paved road, street, or highway.

   D. Is corrected by repair or replacement in accordance with applicable safety standards before the deadline for filing the safety-related condition report, except that reports are required for conditions under paragraph (a)(1) of this section other than localized corrosion pitting on an effectively coated and cathodically protected pipeline.

Reporting Safety Related Conditions

1. If a Safety Related Condition exists, the condition shall, when practical, be repaired within five days. When repairs are completed within five days of determination, no further action is required.

2. When a Safety Related Condition is determined to be reportable, the President shall submit a Safety Related Condition Report to the Secretary of the Department of Transportation within five working days after Engineering determines that the

condition exists, but no later than 10 working days after the day a representative of FNG discovers the condition. Separate conditions can be reported in a single report if they are closely related.

3. Use the form in Attachment 1. The form may be faxed to 202-366-7128

Additional Local Reporting

1. During Emergencies, Operations or Engineering will notify City of Fairbanks (COF) Police Dispatch of any street closures.

2. If emergency repairs and restoration performed within COF traveled ways are not completed by the first working day following the event, FNG Engineering shall report to the City Engineer within four hours of the following working day with a report detailing the location and extent of traffic plans.

3. If LNG is leaked, Engineering shall report to Alaska DEC to the extent of the LNG leak at 1-800-478-9300.

4. Engineering shall submit FNSB Emergency Management Tier II permits annually by March 1.

2012 ADDENDUM UPDATE TO REGULATIONS

ADD: 193.2011 REPORTING PROCEDURES:

(c) Changes. Each operator of a gas pipeline, gas pipeline facility, LNG plant or LNG facility must notify PHMSA electronically through the National Registry of Pipeline and LNG Operators at https://opsweb.phmsa.dot.gov of certain events.
(1) An operator must notify PHMSA of any of the following events not later than 60 days before the event occurs:
(i) Construction or any planned rehabilitation, replacement, modification, upgrade, uprate, or update of a facility, other than a section of line pipe, that costs $10 million or more. If 60 day notice is not feasible because of an emergency, an operator must notify PHMSA as soon as practicable;

(iii) Construction of a new LNG plant or LNG facility.

ATTACHMENT 1

FAIRBANKS NATURAL GAS, LLC
3408 International Way
Fairbanks, Alaska 99701
(907) 452-7111
(907) 457-8111 FAX

Safety Related Condition Report

Submitted By _____ Job Title _____ Telephone # _____ Submittle Date _____

Discovered By _____ Job Title _____ Telephone # _____ Discovery Date _____ Time _____

Discovery Date of Condition _____ Date Condition First Determined to Exist _____

Safety Related Condition: (Include: Condition, circumstances leading to discovery, and any significant effects of condition.)

Date and Time Repair Completed: _____

Method of Repair: _____

Proposed Follow-Up Action: _____

☐ Report to DOT? (If so, attach copy or log)

Photos Taken ?
☐ Yes ☐ No

Signed _____
PERSON FILLING OUT REPORT

SKETCH LOCATION ON BACK OF THIS SHEET FOR MAPPING PURPOSES
USE ACTUAL MEASUREMENTS AND ADEQUATE REFERENCE POINTS
USING STREET NAMES AND ANY OTHER LANDMARKS

DOT COMPLIANCE

Title: Emergency Operating Plan - Distribution

General

1. This SOP is intended as preparation for Fairbanks Natural Gas personnel in the event of an emergency situation throughout the FNG Distribution System.

2. It must be recognized that no manual can cover all possible situations. There is no substitute for sound judgment of the situation by the persons involved.

3. It is important that those who will have the responsibility of handling an emergency situation be familiar with the contents of this manual and the escape route layouts.

4. An emergency may include, but is not limited to the following conditions:

   A. Under-pressure in the system (below 20 PSIG).

   B. Overpressure in the system (above 60 PSIG).

   C. Large volumes of uncontrolled escaping gas.

   D. Fire or explosion.

   E. Any leaks considered hazardous.

   F. Load curtailment conditions where it is necessary to meet unusual and exceptional conditions by the voluntary or mandatory reduction of gas usage by selected customers, excluding interruptible customers.

5. Generally, when responding to any level emergency, the following priority to people and property shall be adhered to:

   A. Safety to customers and the general public.

   B. Safety to employees.

   C. Protection of customer's property.

   D. Protection of Company property.

   E. Inconvenience to customers.

   F. Public relations

G. Cost

6. All employees who have emergency response duties are issued a cell phone and pager. Phones, pagers, and radios will be used in case of emergency to communicate between company and emergency personnel.

Level I Emergency

Level I Emergency - emergency situations involving Fairbanks Natural Gas facilities that are relatively minor in scope. Examples of Level I Emergencies include:

1. Damage to mains, service lines or meter set assemblies.

2. Gas leaks.

3. Line hits with gas blowing clear and/or not creating another emergency. Gas blowing clear means the responder can see and account for all escaping gas (no underground or unseen leak paths) and there is no dirt or debris accentuating the problem.

Level II Emergency

Level II Emergency - emergency situations involving Fairbanks Natural Gas facilities that are more severe than Level I Emergencies, but are not catastrophic in nature. Also included in Level II Emergencies are situations involving serious injury and/or deaths and DOT Reportable Incidents as defined in SOP 1005. Examples of Level II Emergencies include:

1. Damage to Fairbanks Natural Gas facilities that require more complex evaluation and the gas is not blowing clear.

2. Interior building gas leaks.

3. Fires and/or explosions.

4. Shortage of natural gas.

5. Situations involving serious personal injury and/or death to one or more people.

6. DOT Reportable Incidents.

Level III Emergency

1. Level III Emergency - natural or man-made catastrophic disasters that affect large portions of the Company's distribution system and require most, if not all of the Company's employees and significant resources to control and repair. Examples of Level III Emergencies include:

   A. Major earthquakes

   B. Floods

   C. High winds

   D. Enemy or terrorist activity

   E. Riot

Response and Notification Procedures for Emergencies

Level I Emergency Response and Notification Procedures

1. Most Level I Emergency calls will be received via telephone to the Fairbanks Natural Gas' Office.

2. The Dispatch Operator, the Answering service or other FNG employee notified of the emergency shall obtain all critical details of the problem and shall record details on appropriate form.

3. The Dispatch Operator will then contact the On-Call Operator. The On-Call Operator shall then assume responsibility for the response coordination. Refer to SOP 1108, Damage and Gas Leak Response Procedures for the various types of Level I/II Emergency responses:

4. After hours damage to mains, service lines or meter set assemblies shall be reported to the On-Call Supervisor.

5. The On-Call Supervisor or other Initial Responder shall report back to the Dispatch Operator, if applicable, once on site to confirm the responder has arrived and the level of the emergency.

6. Fire Department, Police Department, or other public response agencies (see emergency numbers posted near phones) shall be notified when, in judgment of the responding employee, their services are needed or when the specific procedure identifies they will be notified. If available, Dispatch will notify other emergencies agencies to free Responder of extra duties.

7. If a public response agency is notified, the Emergency is upgraded to a Level II Emergency.

8. Once a Dispatch Operator has begun a Dispatch Log or a related emergency call, that Operator must stay with the Responder or Response team until the emergency has ended or has been relieved of duty by the President.

9. The Responder will make safe any actual or potential hazard to life or property before declaring the Emergency clear.

10. Employees shall document actions taken on the appropriate form.

11. Following certain Level I emergencies, FNG will conduct a review of the emergency to determine whether written procedures were effective and if they were effectively followed in the emergency.

Level II Emergency Response and Notification Procedures

1. Level II Emergencies occur relatively infrequently and usually impact a larger number of customers and require a higher level of response activity by Company employees. Customers usually report Level II Emergencies to Fairbanks Natural Gas's office or service personnel. They also could be identified internally by Fairbanks Natural Gas employees.

2. Upon learning of Level II emergency situation, the Dispatch Operator, the Answering service or other FNG employee notified of the emergency shall obtain all critical details of the problem and report them on the Dispatch Log.

3. The Dispatch Operator will then contact the On-Call Supervisor of the situation. The On-Call Supervisor shall then assume responsibility for the response coordination.

4. There are two categories of vehicles that will respond to emergencies. These vehicles will be equipped with a certain level of emergency equipment (see Attachment 1) These vehicles will be on a regular schedule to check for minimum response equipment. The two types are:

A. Initial Response Vehicle – This vehicle will be operated by the On-Call Initial Responder/Operator. The vehicle will be equipped with the minimum equipment necessary to evaluate the emergency call.

B. Emergency Response Vehicle – This vehicle will by the second response vehicle and will be more suited and equipped to fix the emergency situations beyond minor leak investigation and repair. The Emergency Response Vehicle will also carry the same items as the Initial Response Vehicle plus more adequate equipment to fix nearly all facility damages.

5. In the case of any Level II emergency, the President shall be notified. Additional Supervisors and support personnel shall be contacted to assist on an as-needed basis.

6. Fire Department, Police Department, or other public emergency response agencies shall be notified when, in the judgment of the Supervisor, their services are needed or when the specific procedure identifies they will be notified. SOP 1005 shall be followed when a Reportable DOT Incident occurs.

7. The Supervisor will contact the Dispatch Operator of the Level II emergency. The Dispatch Operator will then contact the appropriate public response agencies. If the emergency is after hours, the Supervisor will contact such agencies.

8. Once the Fire Marshall, Police Officer or other public response Supervisor arrives at the Emergency Scene, the FNG Emergency Supervisor shall inform the public response Supervisor of all critical information, relinquish control of the scene and/or situation to public response Supervisor and follow their instructions.

9. The FNG Supervisor will be available to the public response Supervisor to dispatch FNG employees to handle concerns with and all FNG facilities.

10. When information is to be provided to the public or media, the Designated Company Spokesperson(s) shall provide such information.

11. At all times during any emergency response, information is critical. The Supervisor shall be in contact with the Dispatch Operator or other appropriate personnel to provide updates of the situation.

12. During the construction season, an Operations Lead and crew will be assigned as the main Emergency Response Crew and will be responsible for the Emergency Response Vehicle and all of its equipment.

13. The Responder or Response Crew will make safe any actual or potential hazard to life or property. The Supervisor or President will then declare an end to the emergency.

14. Following any Level II emergency, FNG will conduct a review of the emergency to determine whether written procedures were effective and if they were effectively followed in the emergency.

Level III Emergency Response and Notification Procedures

1. Level III emergencies are natural or man-made catastrophic disasters that affect large portions of the Company's distribution system and require most, if not all, of the Company's employees and resources to control and repair. Examples of Level III emergencies include major earthquakes, floods, riots or enemy attack. Such emergencies will usually be readily apparent and will be broadcast on emergency broadcast channels.

2. A Fairbanks Natural Gas Command Center will be established to coordinated Level III emergency activities. The location of the Command Center will be in the office at 3408 International Way. If that office is not suitable to occupy, all employees shall report to 2161 Donald Avenue to direct Fairbanks Natural Gas's response activities.

3. During a Level III emergency, all employees shall report to their regularly assigned work location as soon as possible after taking care of their family's immediate needs. If it is not possible to get to his/her assigned work location employees shall inform the Dispatch Operator and report to the nearest Company office. Dependent family members may accompany employees to their work location following a Level III emergency if no other care is available. Personal supplies for the employee and their dependent family members should be brought to the work center.

4. All Level II emergency report and response procedures will be followed as closely as possible in addition to the following procedures.

   A. Office Administration and Accounting

      1) Operate Dispatch to answer incoming leak calls, service inquiries and emergency related calls.

      2) Accommodating dependent family members.

      3) Secure additional employees from local and outside agencies, including other gas companies, as needed.

4) Communicate with vendors and manufacturers on the availability of replacement and repair materials.

5) Obtain sufficient cash and credit for emergency expenditures, maintain accounts payable and receivables and payroll.

6) Maintain communications with the Regulatory Commission of Alaska and assist the Executive Officers with their responsibilities.

7) Maintain communications with insurance companies, federal disaster agencies and families during the response.

B. Operations

1) Evaluate and isolate damaged portions of the LNG storage and distribution system, repair damaged facilities including the LNG facility and distribution mains and service lines and restore service to areas with gas outages.

2) Control gas volumes and pressures into the distribution system, ensuring the Company's storage, vaporization, metering, odorization and regulating facilities are operating properly.

3) Ensure Company buildings are safe to occupy after an emergency and ensure safe work practices and environmental concerns during the emergency response efforts.

4) Leak investigations and restoration of gas service to customers.

C. Engineering

1) Provide plans, drawings and support to help isolate affected parts of Fairbanks Natural Gas's distribution system.

2) Establish repair priorities and cost schedules.

3) Assist Operations in performing leak surveys and line locates, as needed.

4) Maintain communications with emergency services, gas suppliers and large volume customers. Engineering will be the primary point of contact between the Command Center and field personnel.

5) Reestablish and maintain the computer system at FNG office and LNG storage site.

E. Executive Officers

Responsible for maintaining communications with the parent company, stockholders, financial institutions, regulatory agencies, and staffing the Command Center.

F. Equipment / Warehouse:

1) Obtain, warehouse and distribute emergency repair goods, services, and materials.

2) Repair and maintain company buildings.

3) Responsible for obtaining food supplies, drinking water, sanitary supplies and housing for employees assisting with the emergency.

4) Maintain all Company and rental equipment and vehicles used during an emergency.

5) Stand-by generator operation and maintenance.

6) Distributing fuel and vehicle supplies.

5. Response efforts to Level III Emergencies shall be coordinated as much as is practical with Local, State and Federal Emergency Response Agencies. Engineering shall act as liaison with appropriate fire, police and other public officials to learn about the resources and response capabilities of government organizations. He shall also acquaint public agencies with FNG's response capabilities to gas emergencies and to plan mutual assistance in the event of such emergencies.

6. When information is to be provided to the public or media, the Designated Company Spokesperson(s) shall provide such information.

7. The Responder or Response Crew will make safe any actual or potential hazard to life or property. The President will then declare an end to the emergency.

8. Following any Level III emergency, FNG will conduct a review of the emergency to determine whether written procedures were effective and if they were effectively followed in the emergency.

Emergency Contact Names and Numbers

See most current version of COMPANY AND EMPLOYEE PHONE NUMBERS sheet located near all major phones

Media Inquiries

1. In the event of a major uncontrollable, catastrophic or other event deemed severe enough to report to the public, the President shall serve as the Designated Company Spokesperson. In his absence, the appointed FNG personnel shall serve as the Designated Spokesperson.

2. No other FNG personnel shall speak or report to the media unless accompanied or supervised.

3. Should it be necessary to provide emergency related information to the public via radio or television, the President shall authorize such broadcasts prior to release.

Emergency Training and Reporting

1. FNG conducts most of the training for Crew Supervisors, Managers, and Contractors during the winter months. Emergency Training is conducted during this time. Due to the variety of assigned Emergency Response duties, there will be different levels of training.

   A. Company Wide Training shall include assigned positions, definitions of emergency levels, assigned tasks and a thorough run through of an emergency situation ensuring that everyone is aware of their duties. This will also inform all employees of the duties and tasks of the other assigned positions.

   B. Position Specific Training shall include, as a minimum, training in the use of all emergency equipment and tools, training on the properties of natural gas, and periodic drills.

2. After all emergencies and drills, a report will be generated outlining the sequence of events and people involved. These reports will be used to record events and help assess the effectiveness of training and SOPs. Any shortcomings in SOPs or actions will be noted and a correction will be suggested.

3. Emergency training will be conducted bi-annually, or as often as necessary.

ATTACHMENT 1

Emergency Equipment List

First Response Vehicle

- Large flashlight
- Snoop bottle (winter)
- 2 Crescent wrenches
- 24" pipe wrench
- 36" pipe wrench
- Pipe Dope
- Socket wrenches for 1813C/B springs
- Screw driver set
- Allen wrench set
- Multi-gas detector
- Pipe Locator
- 15" WC pressure gauge
- 60-100 psi pressure gauge
- Main line valve wrench
- Flat blade shovel
- First-Aide Kit
- Safety glasses
- Hearing protection
- Fire Extinguisher
- FNG Identification Badge
- Service Area Map Book
- Phone list

Emergency Response Vehicle *(Requirement to have at least all Gas Control Equipment)*

- All items from First Response Vehicle
- Squeeze off tools with bars for all pipe sizes
- Pipe locator
- Electrofusion machine
- 6 3/4" electrofusion collars
- 2 2" electrofusion collars
- 2 4" electrofusion collars
- 2 6" electrofusion collars
- 2 8" electrofusion collars
- 4" fusion machine with all inserts
- 5.5 Kw Generator
- 2 shovels
- 1 pick
- Jackhammer
- Grease and permanent markers
- 15' 3/4", 2", 4", 6", and 8" pre-tested pipe sections
- 4 barricades
- 2 "Men Working" signs
- 2 3/4" riser valves
- 2 3/4" risers
- 2 3/4" flex hoses
- 1 Flash light
- 2 36" pipe wrenches
- 2 12" pipe wrenches

Title: Emergency Shutdown and Restoration of Gas Pipeline Facilities

Emergency Pressure Reduction and Shutdown of Pipeline Sections

1. In some emergency situations, reduction of gas pressure in the pipeline or shutdown of pipeline sections may be necessary in order to provide a safer degree of public safety and/or a safer working environment for FNG personnel.

2. The Supervisor in charge of an emergency situation will make the determination of whether to shut down or lower pressure in sections of the FNG pipeline.

3. Pressure reduction in the distribution system can be accomplished at the:

   A. LNG Storage Site #1 by turning the pilot on the meter run regulator REG600 counterclockwise while observing the pressure on PI603.

   B. At FNG LNG Storage Site #2, Turn Pilot set screw Counter Clock Wise on Regulator R100 (4") and Regulator R200 (8"). Monitor pressure at system filter pressure gauge.

4. There are permanent system pressure dials to gauge distribution pressure. The FNG office has the most accessible.

5. Depending on the distribution header configuration, it may also be necessary to cease or alter boiloff or bypass operations.

6. The 4" main extending south from the LNG Storage Site #1 can be shut down by closing valve V804 at the east end of the meter run. The distribution line extending north from the LNG Storage Site can be shut down by closing valve V808 at the east end of the meter run.

7. The 8" main extending north from the LNG Storage Site #2 can be shut down at the 8" Valve (V909) at the east end of meter run.

   NOTE* See SOP 1111 for emergency shutdown of LNG tanks and vaporization.

8. There are several isolation valves located through the distribution system. These can be completely shut or throttled. To operate the valve, attach the appropriate valve wrench to valve stem and slowly turn clockwise. The valve is shut when closed 90 degrees clockwise. See the FNG Gas Main Distribution Map for distribution valve shutoff locations.

9. Lines can also be shut or throttled by pipe squeezing. See SOP 2210.

10. If pipelines are shutdown or pressure throttled, customers may loose service depending on subsequent line pressures. If it is known that customers will loose service, close all service line valves downstream of pipeline shutdown point.

Restoring Pipeline Sections After Shutdown

1. Before restoring gas to shutdown pipeline, ensure that no air has entered the gas pipeline. If so, purge line by following procedures in SOP 2110.

2. Verify adequate gas supply and proper pressures are available to restore gas pipeline.

3. Slowly open or restore any distribution valves or squeezed pipe to normal operating conditions.

4. Verify distribution pressures.

5. Contact customers who have had service interrupted and arrange for reinstatement of gas service. Verify gas equipment being served in the premise is shut-off & reactivate gas service to the customers piping by opening the meter valve. Customers will need to have all equipment restarted or relit. Follow manufacturer's written procedures for relight.

Title: Abnormal Operating Conditions

General

1. These procedures are intended to supplement standard operating procedures if and when abnormal conditions occur.

2. Abnormal conditions are controllable conditions that might be expected to cause a safety condition, but have not elevated to an emergency condition.

High and Low Pressures

In addition to the conditions identified in SOP 6242 – Abnormal Transfer Procedures, an abnormal operating condition may exist if Distribution Pressure exceeds its Maximum Allowable Operating Pressure (60 psi).

Storage Site #1

The Distribution Pressure at Site #1 is controlled by REG 600 for main gas out, REG 650 for Main Boil-off and Tank 4 pressure setting, and is normally operated at 45-50psi, well below the MAOP of 60 psi. In the event conditions exit that would cause the Distribution Pressure to exceed 60 psi, the Distribution system is protected by PSV 600 which is set to relieve excess gas pressure above 60 psi. If an event occurs resulting in Distribution Pressure exceeding 60 psi, the condition may be controlled by isolating the distribution system by closing valves or activation of the ESD. (See SOP 1106 – Emergency Shutdown and Restoration of Gas Pipeline Facilities and SOP 1110 – Emergency Operating Plan)

Storage Site #2

The Distribution Pressure at Site #2 is controlled by R-6 for main gas out, and AOV-9 for Boil-off and is normally operated at 45-50psi, well below the MAOP of 60 psi. In the event conditions exit that would cause the Distribution Pressure to exceed 60 psi, the Distribution system is protected by PSV 600 which is set to relieve excess gas pressure above 60 psi. If an event occurs resulting in Distribution Pressure exceeding 60 psi, the condition may be controlled by isolating the distribution system by closing valves or activation of the ESD. (See SOP 1106 – Emergency Shutdown and Restoration of Gas Pipeline Facilities and SOP 1110 – Emergency Operating Plan)

Gas Detection

1. Gas Detection (Levels between 25% and 50% LEL):

A. If the stationary or portable gas detectors detect methane at levels below 50% LEL, follow all safety precautions and procedures for working in a gaseous atmosphere.

B. Attempt to find and isolate source of gas or liquid leak.

C. Monitor gas levels until condition has stopped.

D. Reset any alarms that may have been activated and call Dispatch to clear alarm.

2. Gas Detection (Levels over 50% LEL)

A. If the stationary or portable gas detectors detect methane at levels above 50% LEL, continue to follow all safety precautions and procedures for working in a gaseous atmosphere.

B. At SS#2, the ESD system will automatically shutdown all valves tied to the ESD system when gas detectors reach 50% LEL.

C. Attempt to find and isolate source of gas or liquid leak.

D. If leak can be safely isolated, clear the alarm and reopen appropriate valves to restore operations.

E. To clear alarm:

1) Acknowledge alarm on screen

2) Silence the alarm on Control Panel

3) Reset the Control Panel

F. Repair any damages or conditions that exist and restore operations.

G. Monitor gas levels and perform a thorough gas leak survey with portable gas detector.

Fire Detection

1. If the flame detectors are activated, follow SOP 1112 – Fire Protection Plan.

2. Verify that detector has not been a false detection often caused by glaring sun or activities outside storage facility.

Glycol Leak

1. Polypropylene glycol is environmental safe and non toxic, but can be an irritant to skin, eyes and lungs. Use proper PPE and ventilate area before cleaning spill.

   A. If glycol comes in contact with skin, wash with soap.

   B. If glycol comes in contact with eyes, flush with water for several minutes.

   C. If ingested, go directly to the emergency room.

2. If a accidental release occurs:

   A. Don protective wear.

   B. Take measures to stop spread of further spill or contamination.

   C. Use spill kit soak up released material.

   D. Glycol is flammable at high temperatures and may catch fire.