



10-31-08A10:34 RCVD

FAIRBANKS NATURAL GAS, LLC

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SENT TO COMPLIANCE REGISTRY  
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October 1, 2008  
Chris Hoidal  
Director, Western Region  
Pipeline and Hazardous Material Safety Administration  
12300 W. Dakota Ave, Suite 110  
Lakewood, CO 80228

Re: Notice of Amendment  
CPF 5-2008-0011M

Dear Mr. Hoidal,

This letter is written in response to the Notice of Amendment issued for the Fairbanks Natural Gas, LLC (FNG) transmission line and facilities in Big Lake, Alaska. These written responses are to lay out how FNG has made appropriate changes to its written procedures to come into compliance with PHMSA's notice's.

Item #1

FNG has amended its SOPs to include Abnormal Operating procedures to respond to, investigate, and correct the cause of unintended valve closures or shut down. The amended SOPs relating to this issue are attached for PHMSA to verify that the item has been amended. (SOP 1410)

Item #2

FNG has amended its SOPs to include an adequate procedure outlining that the design, installation, operation, and maintenance of the cathodic protection system MUST be carried out by, or under the direction of a person qualified in pipeline corrosion control methods. The amended SOPs relating to this issue are attached for PHMSA to verify that the item has been amended. (SOP 1805)

Item #3

FNG has reviewed and amended the SOPs to include procedures for the annual pipe-to-soil readings to accurately monitor the effectiveness of the cathodic protection system. The amended SOPs relating to this issue are attached for PHMSA to verify that the item has been amended. (SOP 1805)

If there is anything further that PHMSA would like of FNG on these issues, please feel free to contact me.

Thank you for your time and effort.

Sincerely,

  
**Matthew J Nardini, PE**

Operations Engineer  
Fairbanks Natural Gas  
907-357-7111 office  
815-642-0719 fax

**Attachments:**

FNG SOP 1410

FNG SOP 1805



# Standard Operating Procedures Manual

**Title: Investigation of Accidents and Material Failures**

S.O.P. No.: 1410

Revision No.: 004

Effective Date: 10/1/08

Page 1 of 2

Authorizing Signature: \_\_\_\_\_ Title: Plant Supervisor

## General

1. Certain conditions specified by this SOP will constitute an investigation of an accident or material failure.
2. Investigations will take place as soon as possible after the accident or emergency to **determine the cause and the prevention of re-occurrence**, as well as insuring the safety of the public, FNG personnel, and other infrastructure and utility equipment.
3. The following types of natural gas or LNG related accidents or material failures shall necessitate an investigation, regardless of any other conditions. This is not an all-inclusive list:
  - A. Construction material defects, such as steel pipe or fitting defects, that affect a significant portion of the Company's inventory. Isolated defects may or may not require an investigation.
  - B. Failure of material or operating equipment that is installed in the Company's process system, i.e., regulator failure, valve failure, pipe failure, weld failure, etc.
  - C. Third party natural gas related accidents with extenuating or unusual circumstances.
  - D. Motor vehicle accidents and/or on-the-job injuries if they involve natural gas.
  - E. Unintended valve closures or shut down.

## Investigation Procedure

1. All employees shall be alert to possible material defects, failures or gas related accidents that are unusual in nature and report them to the Plant Supervisor. Supervisors should be especially alert to defects, failures or accidents.
2. The following actions shall be considered for specific investigations:
  - A. Collection of facts pertaining to the situation by interviewing individuals, examining materials or site conditions.
  - B. Ordering laboratory analysis or professional assistance, when deemed necessary.



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Page 2 of 2

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- C. Review laboratory results or professional investigations.
  - D. Involve other company employees in the investigation. Review the facts and findings of the investigation with the President.
3. After the emergency or accident corrective action and plans has been put into effect and completed, and after the investigation of the even is concluded, the activities and procedures used during that procedure will be reviewed for effectiveness, with a portion of this review to determine if the procedure needs to be changed or modified.
- A. Determine the probable or actual cause or causes and make recommendations to minimize recurrence.
  - B. Prepare written documentation of the investigation, its findings, and recommendations.
  - C. Implement recommended measures.

## **Documentation and Specimen Retention**

- 1. All material defects, failure or gas related accidents that are reported to the Plant Supervisor and the subsequent investigation, if any, shall be documented and logged in writing.
- 2. The Supervisor, or his/her designee, shall be responsible for maintaining copies of such documents for the life of the facility.



# Standard Operating Procedures Manual

## **Title: Transmission Line Corrosion Protection and Inspection**

S.O.P. No.: 1805

Revision No.: 004

Effective Date: 10/1/08

Page 1 of 3

### **Corrosion Protection and Inspection**

For all Corrosion Related issues relating to any pipelines owned and operated by FNG, design, installation, operation, and maintenance of the cathodic protection systems **MUST** be carried out by, or under the direction of a person qualified in pipeline corrosion control methods.

#### 1. Atmospheric Corrosion

- A. At least once every 3 years, or as often as necessary, the atmospheric protection system will be examined by a person qualified in pipeline corrosion control methods (Corrosion Personnel) to determine whether the protection meets all design requirements.
- B. The Corrosion Personnel shall visually inspect all above ground portions of the transmission line, valve, piping, and the area in general for signs of corrosion or corrosion protection deterioration.
- C. If any corrosion is found, the Corrosion Personnel will determine the extent of the corrosion in regards to the wall thickness. If the corrosion has deteriorated the wall thickness to a point less than what is required for the MAOP, the pipe will be scheduled for repair or replacement by qualified contractor.
- D. Regardless of the corrosion findings, the Corrosion Personnel will clean up the pipe and apply fresh paint, as necessary.
- E. Record actions on appropriate form and maintain in file for life of the transmission line.

#### 2. External Corrosion

- A. All underground piping and equipment shall be protected from corrosion and:
  - (1) The pipe must have an acceptable external protective coating.
  - (2) The pipe shall be protected by a cathodic protection system.
  - (3) The pipe shall be electrically isolated from the rest of the LNG plant and nearby metallic structures.
  - (4) A test station shall be installed near the pipe entrance to the LNG plant.

**Title: Transmission Line Corrosion Protection and Inspection**

**S.O.P. No.: 1805**

**Revision No.: 004**

**Effective Date: 10/1/08**

**Page 2 of 3**

- (5) All specifications shall meet those detailed in 49 CFR Part 192
  - B. All underground piping and equipment protected from corrosion will be inspected annually, but at intervals not to exceed three years, by a person qualified in pipeline corrosion control methods.
    - 1) Connect negative (-) terminal of the multi-meter to the copper-copper sulfate half cell.
    - 2) Connect the positive (+) terminal of the multi-meter to the pipe.
    - 3) Remove cap to half cell and place in soil above protected pipe. Ensure there is a good contact between soil and half cell.
    - 4) Turn multi-meter to DC volts and take reading.
    - 5) With cathodic protection applied, a minimum potential reading of -0.85 volt must be measured between the pipeline and the half-cell.
    - 6) Take readings at both NE and ENSTAR ends.
    - 7) Once every 5 years, take potential readings every 5 to 10 feet over entire length of pipeline to ensure adequate protection.
  - C. Inspect the electrical isolation system annually for adequate electrical isolation.
    - 1) Electrical isolation cannot be determined by an ohm reading across the barrier.
    - 2) Measure the pipe to soil potential on both sides of the isolation barrier and compare the readings. Similar readings may indicate an inadequate isolation barrier.
  - D. Anytime the transmission line is exposed, the external protective coating and pipe will be visually inspected by Corrosion Personnel. If coating damage or corrosion is found, the operator shall investigate circumferentially and longitudinally beyond exposed area to determine extends of damage or corrosion.
3. Repair pipe if corrosion found
- If it is found that any parts of the pipe, its protective coating or corrosion protection system has been damaged, it will be repaired or replaced as soon as practical by Corrosion Personnel.



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S.O.P. No.: 1805

Revision No.: 004

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Page 3 of 3

### **Maintenance Records**

1. The data and results of all monitoring inspections and associated maintenance activities required in this SOP shall be recorded and maintained as part of the plant maintenance records.
2. All visual inspections of any component subject to atmospheric or external corrosion shall be logged showing:
  - A. Date
  - B. Person(s) performing the inspection
  - C. Remarks as to the conditions observed
3. Records, markers, or maps shall be maintained showing the location of:
  - A. Cathodically protected components
  - B. Neighboring structures bonded to the protection system, if applicable
  - C. Size and location of anodes
  - D. Test stations
4. All records of inspections and maintenance activities shall be maintained for the life of the facility.

### **Pressure Testing**

1. If repairs or maintenance is required on any portion of the steel transmission line, pressure testing will be conducted by a Contracted to a company competent in performing and certifying pressure testing of Steel Gas Transmission lines.