



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 28, 2015

Mr. John Traeger
President
Front Range Pipeline LLC
803 HWY 212 S
P.O. Box 909
Laurel, MT 59044

CPF 5-2015-6003M

Dear Mr. Traeger:

Between December 17, 2013 and June 26, 2014, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected Front Range Pipeline LLC's (Front Range) procedures for your Control Room Management (CRM) in Laurel, Montana. Your CRM procedures also apply to the Cenex Pipeline, LLC (Cenex), OPID 2170. Cenex was issued a Notice of Amendment (CPF 5-2015-5016M), dated July 23, 2015 for apparent inadequacies in their CRM procedures.

On the basis of the inspection, PHMSA identified the same inadequacies within Front Range's Control Room Management plans or procedures, as described below:

1. §195.446 Control room management.

(b) Roles and responsibilities. Each operator must define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions. To provide for a controller's prompt and appropriate response to operating conditions, an operator must define each of the following:

(3) A controller's role during an emergency, even if the controller is not the first to detect the emergency, including the controller's responsibility to take specific actions and to communicate with others.

Front Range did not establish adequate written procedures to address a controller's role during an emergency as required by §195.446(b) (3). During the inspection, it was determined that the procedures in the Front Range CRM manual do not specifically address the controller's responsibilities in the event the control room must be evacuated. As a result, Front Range must modify the procedures in the CRM manual to specifically address the controller's responsibilities in the event the control room must be evacuated.

2. §195.446 Control room management.

(c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

(2) Conduct a point-to-point verification between SCADA displays and related field equipment when field equipment is added or moved and when other changes that affect pipeline safety are made to field equipment or SCADA displays.

Front Range did not establish adequate written procedures for conducting a point-to-point verification as required by §195.446(c) (2). During the inspection, it was determined that the procedures in the Front Range CRM manual do not fully define safety related points to include each of the following items:

1. Points associated with all safety-related alarms and control points must be included.
2. Procedures should be established to define which points are declared as safety-related.
3. Operator should have a list (or database) of points that indicates whether or not each point is safety-related.
4. Procedures should also address criteria for treating points as safety-related.
5. Station inlet and discharge pressures should fall into the safety-related category.
6. Pressure Regulator inlet and outlet pressures should fall into the safety-related category.
7. Soft points (points created in SCADA software) should be considered when determining a list of safety-related points.
8. Examples of safety-related points are provided in FAQ C.01.

In addition, the CRM plan does not fully address the following issues concerning establishment and implementation of procedures for the thoroughness of the point-to-point verification:

1. The procedure must define the extent of verification to include physical location of device, data value or status, any alarm settings, and to assure that any test signals are injected at the actual device in the field.
2. The verification procedure must include a requirement to check a representative sampling

- of impacted displays (FAQ C.03).
3. If the verification process includes partial simulation, the operator must establish a procedure to define when simulation should be used in point-to-point verification (FAQ C.05).
 4. If the verification process includes partial simulation, the operator must establish a procedure to define what type(s) of simulation is/are applicable for specific instruments and equipment during point-to-point verification (FAQ C.05).
 5. The process should verify the actual physical location and sequence among other devices and equipment at the location; and verify the data, information and any control or alarm functions to/from the point are being accurately represented on all SCADA displays on which it resides (FAQ C.02 and C.06).

Furthermore, the plan does not specifically indicate the timeframe as to when the point-to-point verification must be completed. As a result, Front Range must modify the procedures in the CRM manual to address these issues.

3. §195.446 Control room management.

(c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

(3) Test and verify an internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months.

Front Range did not establish adequate written procedures for testing and verifying an internal communication plan as required by §195.446(c) (3). During the inspection, it was determined that the procedures in the Front Range CRM manual do not include procedures to test and verify an internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months. As a result, Front Range must modify the procedures in the CRM manual to include procedures to address this issue.

4. §195.446 Control room management.

(d) Fatigue mitigation. Each operator must implement the following methods to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities the operator has defined.

Front Range did not establish adequate written procedures to address the risk associated with controller fatigue as required by §195.456(d). During the inspection, it was determined that the procedures in the Front Range CRM manual do not require the potential contribution of controller fatigue to incidents and accidents be quantified during investigations. As a result, Front Range must modify the procedures in the Front Range CRM manual to address this issue, i.e. see FAQ D.12 and white paper entitled "Investigating the Possible Contribution of Fatigue to Pipeline Mishaps" (<http://primis.phmsa.dot.gov/crm/fm.htm>) for fatigue factors that should be considered in accident/incident investigations. See instructions for incident report forms PHMSA F 7100.1, 7100.2, and 7000-1, and requirements for reporting incident causes in accordance with 191.9,

191.15, and 195.54. Forms and instructions are available online at:
<http://www.phmsa.dot.gov/pipeline/library/forms>.

5. §195.446 Control room management.

(d) Fatigue mitigation. Each operator must implement the following methods to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities the operator has defined:

(4) Establish a maximum limit on controller hours-of-service, which may provide for an emergency deviation from the maximum limit if necessary for the safe operation of a pipeline facility.

Front Range did not establish adequate written procedures for determining a maximum limit on controller hours-of-service as required by §195.446(d) (4). During the inspection, it was determined that the procedures in the Front Range CRM manual do not clearly define the shift start and end times of the controllers. As a result, Front Range must modify the procedures in the Front Range CRM manual to clearly define the shift start and end times of the controllers.

6. §195.446 Control room management.

(f) Change management. Each operator must assure that changes that could affect control room operations are coordinated with the control room personnel by performing each of the following:

(1) Implement section 7 of API RP 1168 (incorporated by reference, see § 195.3) for control room management change and require coordination between control room representatives, operator's management, and associated field personnel when planning and implementing physical changes to pipeline equipment or configuration.

Front Range did not establish adequate written procedures for implementing section 7 of API RP 1168 as required by §195.446(f)(1). During the inspection, it was determined that the procedures in the Front Range CRM manual do not require implementation of section 7 of API RP 1168 for control room management change and require coordination between control room representatives, operator's management, and associated field personnel when planning and implementing physical changes to pipeline equipment or configuration. In addition, the CRM plan does not have a process/procedure to assure changes in field equipment (for example, moving a valve) that could affect control room operations are coordinate with the control room personnel.

As a result, Front Range must modify the procedures in the CRM manual to address these issues and incorporate the following:

1. Procedures must manage SCADA and data communications maintenance or configuration activities to assure controllers are aware of, review, and provide input, in advance of work.
2. Records must demonstrate that field personnel have contacted the control room whenever required by procedure.
3. When temporary changes are no longer necessary, return to normal constitutes the need to invoke the change management procedure.
4. Do the operator's procedures include guidance or a description of what changes in field equipment would constitute the need to invoke change management provisions. Examples include but are not limited to: purchase or sale of physical assets; new equipment coming

online; retired equipment going offline; and field maintenance activity affecting pipeline control room operation (FAQs F.01 and F.02).

5. Ensure there is a procedure to mandate that a control room representative will participate in meetings where changes that could directly or indirectly affect control room operations (including routine maintenance and repairs) are being considered, designed and implemented. The actual control room representative must have sufficient familiarity with control room activities to adequately perform this task. The control room representative must adequately communicate related information to impacted controllers. Records should include meeting topics and communiqué created for controllers, i.e. see API RP-1168 section 7 for examples.
 6. Before implementing changes, provide controllers with notification and training to assure the controller's ability to safely incorporate the proposed change into their operations, i.e. see API RP-1168 section 7.3 for specific information.
7. **§195.446 Control room management.**

(f) Change management. Each operator must assure that changes that could affect control room operations are coordinated with the control room personnel by performing each of the following:

(2) Require its field personnel to contact the control room when emergency conditions exist and when making field changes that affect control room operations.

Front Range did not establish adequate written procedures for requiring the field personnel to contact the control room when emergency conditions exist as required by §195.446(f)(2). During the inspection, it was determined that the procedures in the Front Range CRM manual do not require field personnel to contact the control room when emergency conditions exist and when making field changes that affect control room operations. As a result, Front Range must modify the procedures in the CRM manual to address this issue and incorporate the following:

1. Field personnel must communicate with the control room immediately upon discovery of an emergency condition.
2. Records must demonstrate that field personnel have contacted the control room whenever emergency conditions existed.
3. Field personnel must communicate with the control room before any equipment is being put into local control or returned to remote control.
4. Field personnel must communicate with the control room before any equipment is being taken out of service or returned to service.
5. Field personnel should alert the control room before personnel enter a SCADA-controlled facility (including but not limited to compressor/pump stations, meter stations, main-line valves, etc.), which is normally unattended.
6. Field personnel should be trained to call the controller when making field changes that have the potential to affect control room operations.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.237. A similar Notice was sent to Cenex Pipeline LLC which utilizes the same CRM procedures as Front Range Pipeline Company. Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

If, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 60 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested (not mandated) that Front Range Pipeline LLC maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 5-2015-6003M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*

cc: PHP-60 Compliance Registry
PHP-500 M. Petronis (#148705)