



U.S. Department  
of Transportation

**Pipeline and  
Hazardous Materials Safety  
Administration**

8701 S. Gessner, Suite 630  
Houston, TX 77074

## **NOTICE OF AMENDMENT**

### **CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

May 13, 2019

Gary Buchler  
Vice President, Operations and Engineering  
Tennessee Gas Pipeline Company  
1001 Louisiana Street  
Houston, Texas 77002

**CPF 4-2019-1008M**

Dear Mr. Buchler:

From September 17-21, 2018, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected Tennessee Gas Pipeline Company's (TGP) procedures for Control Room Management in Houston, Texas.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within TGP's plans or procedures, as described below:

**1. §192.631 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.**

TGP's written control room management procedure, HOU-GC-5, is inadequate because it does not instruct controllers to use appropriate fatigue mitigation measures when working during certain high-risk hours. TGP's procedure only requires that control room personnel utilize fatigue mitigation tactics between the hours of 2 am through 5 am. This requirement does not meet all of the scenarios where fatigue mitigation must be used.

PHMSA's control room management FAQ section D.07 provides the following guidance for controllers working beyond the traditional 8-5, 5-day schedule.

6. *Fatigue mitigation tactics should be implemented during shifts/times of increased fatigue risk, as shown by research and/or fatigue modeling, including:*
  - a. *Any and all shift duty hours worked after the first 8 hours.*
  - b. *Any and all hours worked between 2:00 am and 6:00 am.*
  - c. *Any and all successive night shifts following three successive nights.*
  - d. *Any and all day or night shifts following four successive night shifts unless three nocturnal sleep cycles have been completed.*

TGP must amend their procedures to require fatigue mitigation tactics be employed during all times of increased risk, or provide justification demonstrating that this deviation from parameters does not elevate the fatigue risk.

## 2. §192.631 Control room management.

**(e) Alarm management.** Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include provisions to:

**(5) Monitor the content and volume of general activity being directed to and required of each controller at least once each calendar year, but at intervals not to exceed 15 months, that will assure controllers have sufficient time to analyze and react to incoming alarms;**

TGP's written control room management procedure HOU-GC-7a is inadequate because it does not provide parameters or thresholds for determining whether controllers have sufficient time to analyze and react to incoming alarms. TGP's procedure describes the process for measuring and calculating controller workloads, but fails to set thresholds or parameters for determining whether these workloads are adequate. TGP must amend their procedures to include thresholds or parameters to determine whether the controller workloads are adequate.

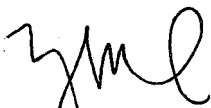
Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. 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).

Following the receipt of this Notice, you have 30 days to submit written comments, revised procedures, or a request for a hearing under §190.211. 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 an Order Directing Amendment. If 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. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 30 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 TGP maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Mary L. McDaniel, Director, Southwest Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 4-2019-1008M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Mary L. McDaniel, P.E.  
Director, Southwest Region  
Pipeline and Hazardous Materials Safety Administration

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