

**DEPARTMENT OF TRANSPORTATION
OFFICE OF THE CHIEF INFORMATION OFFICER**

SUPPORTING STATEMENT

Pipeline Safety: Control Room Management/Human Factors
Docket No. PHMSA-2012-0215
OMB Control No. 2137-0624

INTRODUCTION

This is to request the Office of Management and Budget (OMB) grant approval for a renewal of an information collection entitled “**Pipeline Safety: Control Room Management/Human Factors**” (OMB Control No. 2137-0624).

Part A. Justification.

1. Circumstances that make collection of information necessary. The Pipeline Inspection Protection, Enforcement and Safety (PIPES) Act of 2006 required PHMSA to issue regulations mandating operators of gas and hazardous liquid pipelines to develop, implement, and submit a human factors management plan designed to reduce risk associated with human factors in each control room. The PIPES Act also required PHMSA to implement recommendations from the 2005 National Safety Transportation Board (NTSB) study relating to the Supervisory Control and Data Acquisition (SCADA) System—a significant tool used by many controllers to interface with controlled or monitored pipelines. In 2009, The Pipeline and Hazardous Materials Safety Administration (PHMSA) revised the Federal pipeline safety regulations to address human factors and other components of control room management.

This information collection supports the U.S. Department of Transportation’s “SAFETY STRATEGIC GOAL” which targets three main strategic initiatives: managing risk and integrity, sharing responsibility, and providing effective stewardship. This goal enhances public health and safety by working toward the elimination of transportation-related deaths and injuries.

2. How, by whom, and for what purpose is the information used. This information collection supports PHMSA’s requirements for control room management pertaining to all hazardous liquid (HL) pipelines and gas pipelines subject to 49 CFR Parts 195 and 192 respectively that use SCADA systems and have at least one controller and control room. The regulations in 49 CFR Part 195 apply to owners and operators of pipelines used in the transportation of hazardous liquids and carbon dioxide. Throughout this document, the term “hazardous liquid” refers to all products in pipelines regulated under part 195. In addition, the term “operator” refers to both owners and operators of pipeline facilities. The regulations in 49 CFR Part 192 apply to operators of pipelines that transport natural gas, flammable gas, or gas which is toxic and corrosive. Throughout this document, the term “gas” refers to all gases in pipelines regulated under part 192. Gas distribution pipeline operators with fewer than 250,000 services or gas transmission without compressor stations must follow procedures with appropriate documentation that implement only the requirements for fatigue management, validation, and compliance and deviations. The information is also used by Agency and State Officials to assist federal and state pipeline safety inspectors who audit this information when they conduct

compliance inspections and to provide background for failure investigations. The recordkeeping requirements are consistent with good business practices and are designed to enhance current control room management practices.

3. Extent of automated information collection. PHMSA does not specify a format. Operators are free to make use of any information tool available to them.

4. Efforts to identify duplication. No Federal rules duplicate, overlap, or conflict with this information collection.

5. Efforts to minimize the burden on small businesses. PHMSA has taken steps to minimize the significant economic impact on small entities, including exempting gas distribution operators with fewer than 250,000 services and gas transmission operators without compressor stations from all requirements except fatigue mitigation, compliance validation, and recordkeeping.

6. Impact of less frequent collection of information. PHMSA requires the information for regulatory purposes. The scheduled collection of most of the information is conducted annually, but in some cases the collection is not to exceed 15 months. Less frequent data collection would hinder achieving operator compliance with the pipeline safety regulations, which is critical to preventing accidents.

7. Special Circumstances. This information collection does not contain any special circumstances.

8. Compliance with 5 CFR 1320.8. On August 27, 2012, PHMSA published a 60 Day Notice in the Federal Register (77 FR 51848) requesting comments on this collection. No comments were received.

9. Payments or gifts to respondents. No payment is provided.

10. Assurance of confidentiality. Not applicable.

11. Justification for collection of sensitive information. There is no sensitive information collected.

12. Estimate of burden hours for information requested. 49 CFR 192.631 requires HL pipeline operators and gas operators to keep records on the following sections: control room management procedures; roles and responsibilities of pipeline controllers; information on SCADAs; fatigue mitigation; alarm management; change management; operating experience; training; compliance validation; and deviations. PHMSA estimates an impacted universe of 2,702 pipeline operators. PHMSA estimates that it would take pipeline operators subject to the requirements of the rule approximately 127,328 hours per year to comply with the rule's recordkeeping and record retention requirements. Detailed estimates follow:

(a) Prepare and keep records associated with the general requirement under this rule. Operators must have control room operating procedures. PHMSA estimates that it would take each operator approximately 6 hours per year to fulfill the recordkeeping requirements. There are 422 HL pipeline operators and 548 gas pipeline operators impacted by this requirement.

PHMSA estimates that it would take pipeline operators approximately 5,820 hours per year $[6*(422+548)]$ to file and maintain records.

(b) Recordkeeping to comply with the requirements under roles and responsibilities. Each operator must define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions. PHMSA assumes each controller takes approximately 1/2 hour each month, or 6 hours per year, to record the information needed to comply with this requirement. There are approximately 1,425 HL pipeline controllers and 3,091 gas pipeline controllers affected. PHMSA estimates that it would take controllers approximately 27,096 hours per year $[(1,425+3,091)*6]$ to comply with the recordkeeping requirements under this section.

(c) Preparing and maintaining records related to providing 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. PHMSA estimates that a clerk would spend approximately 6 hours per year to file and maintain the records associated with this section. There are 380 HL pipeline operators and 384 gas pipeline operators with SCADAs. PHMSA estimates it would take approximately 4,584 hours per year $[6*(380+384)]$ for pipeline operators to comply.

(d) Recordkeeping and storage for the fatigue mitigation requirements. Each operator must implement methods under this section to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities. All 422 HL pipeline operators and 2,280 gas pipeline operators are impacted by this requirement. PHMSA estimates that each operator will spend approximately 24 hours per year fulfilling this requirement. PHMSA estimates that the annual labor hours needed to maintain and store records associated with fatigue mitigation 64,848 $[24*(422+2,280)]$ for the entire industry.

(e) Recordkeeping associated with the alarm management requirements. Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. PHMSA assumes 380 HL pipeline operators and 384 gas pipeline operators that have SCADAs will need to keep records that relate to alarm management. PHMSA estimates that the aggregate labor hours needed is approximately 20 hours per year per pipeline operator or 15,280 hours per year $[20*(380+384)]$ for all pipeline operators that have SCADAs.

(f) Recordkeeping and record storage associated with change management. Each operator needs to coordinate changes that can affect control room operations with the control room personnel. PHMSA estimates 422 HL pipeline operators and 548 gas operators are impacted. It would take approximately 6 hours per year to file and maintain the records under this section. It would take approximately 5,820 hours per year $[6*(422+548)]$ for pipeline operators to comply.

(g) Recordkeeping and record storage associated with operating experience. Each operator must assure that lessons learned from its operating experience are incorporated, as appropriate, into their control room management procedures. PHMSA estimates that 422 HL pipeline operators and 548 gas operators are impacted. PHMSA estimates it would take 4 hours per year per pipeline operator to fulfill the recordkeeping requirements under this element. The labor

hours associated with this requirement are expected to total approximately 3,880 hours per year [4*(422+548)] for all the pipeline operators that need to comply.

13. Estimate of total annual costs to respondents. PHMSA estimates that the total costs to respondents as a result of this collection are as follows:

PHMSA estimates the cost associated with the general record keeping requirement to be \$116,400 where a clerk making \$20 an hour will spend approximately 6 hours annually to file and maintain the records associated with this requirement. There are 422 HL pipeline operators and 548 gas pipeline operators affected by this recordkeeping burden $(422+548)(6)(20) = \$116,400$. There are 1,425 HL pipeline controllers and 3,091 gas pipeline controllers earning approximately \$64.75 per hour that will collect, analyze, and record the information associated with this requirement. PHMSA estimates that, across industry, these controllers will spend 27,096 hours keeping records that detail roles and responsibilities, 64,848 hours will be spent compiling fatigue mitigation records, for operators with SCADA systems, 15,280 hours will be used for recording alarm management records, and 3,880 hours will be spent complying with recordkeeping requirements associated with operating experience for a combined industry total of 111,104 hours at an estimated cost of \$7,193,984.

PHMSA estimates the total cost to respondents to be \$7,310,384 (\$116,400 + \$7,193,984).

14. Estimate of cost to the Federal government. PHMSA estimates an annual cost to the federal government of \$10,988.80. This total accounts for the cost of a group of 4 inspectors at the GS-13 grade level with a base hourly pay of \$34.34 per hour. PHMSA estimates that this group will spend 8 hours per inspection reviewing the records required by this information collection activity. PHMSA estimates that it will complete an average of 10 inspections annually.

15. Explanation of program changes or adjustments. There are no program changes.

16. Publication of results of data collection. There are no plans to publish the information.

17. Approval for not displaying the expiration date of OMB approval. The Agency is not seeking this approval.

18. Exceptions to certification statement. There are no exceptions.

Part B. Collections of Information Employing Statistical Methods.

This information collection does not employ statistical methods.

1. Describe potential respondent universe and any sampling selection method to be used.

There is no potential respondent universe or any sampling selection method being used.

2. Describe procedures for collecting information, including statistical methodology for

stratification and sample selection, estimation procedures, degree of accuracy needed, and less than annual periodic data cycles.

There are no procedures for collecting information, including statistical methodology for stratification and sample selection, estimation procedures, degree of accuracy needed, and less than annual periodic data cycles.

3. Describe methods to maximize response rate.

There are no methods to maximize the response rate.

4. Describe tests of procedures or methods.

There are no tests of procedures or methods.

5. Provide name and telephone number of individuals who were consulted on statistical aspects of the information collection and who will actually collect and/or analyze the information.

There were no individuals consulted on statistical aspects of this information collection.