

**Department of Transportation
Office of the Chief Information Officer
Supporting Statement**

Flammable Hazardous Materials by Rail Transportation
OMB Control No. 2137-XXXX

(Expiration Date: XXXX)

Introduction

This is to request the Office of Management and Budget's (OMB) establish a new information collection entitled, "Flammable Hazardous Materials by Rail Transportation," as a result of a August 1, 2014 Notice of Proposed Rulemaking (NPRM) [79 FR 45015] titled "Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains (HHFTs)" [PHMSA-2012-0082; RIN: 2137-AE91]. In this NPRM, the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration (FRA) address the burden associated with the proposed information and recordkeeping requirements pertaining to the sampling and testing certification, routing analysis, and incident reporting for flammable liquids by rail transportation.

Part A. Justification

1. Circumstances that make collection of information necessary.

This is a request for a new information collection for information and recordkeeping requirements pertaining to the sampling and testing certification, routing analysis, and incident reporting for flammable liquids by rail transportation.

Expansion in United States energy production has led to significant challenges in the transportation system. In addition, expansion in oil production has led to increasing volumes of product transported to refineries. With a growing domestic supply, rail transportation, in particular, has emerged as a flexible alternative to transportation by pipeline or vessel. The increase in shipments of large quantities of flammable liquids by rail has led to an increase in the number of train accidents, posing a significant safety and environmental concern. This increase in the number of shipments by rail is therefore making it necessary for PHMSA to propose regulations that collect additional information about shipments of oil by rail to ensure the safety of public.

These regulations are promulgated under the Federal hazardous materials transportation law, 49 U.S.C. 5101-5127.

2. How, by whom, and for what purpose the information is to be used.

Rail carriers, shippers, Pipeline and Hazardous Materials Safety Administration's (PHMSA) Office of Hazardous Materials Safety (OHMS), the Federal Railroad Administration (FRA), and

the Association of American Railroads (AAR) may use this information to ensure that rail tank cars transporting flammable liquids are properly classified, ensure trains are routed appropriately, and collect all relevant incident data.

49 CFR 173.41: Sampling and testing program for mined gas and liquid

PHMSA is proposing § 173.41 to require a sampling and testing program for mined gases and liquids, including crude oil. A sampling and testing program is used to ensure that shipments of mined gases and liquids, including crude oil, are shipped in the appropriate rail car. PHMSA is proposing a new section of the HMR to require a sampling and testing program which specifies at a minimum:

- (1) A frequency of sampling and testing that accounts for variability of the material, including the time, temperature, method of extraction (including chemical use), and location of extraction;
- (2) Sampling at various points along the supply chain to understand the variability of the material during transportation;
- (3) Sampling methods that ensure a representative sample of the entire mixture, as packaged, is collected;
- (4) Testing methods to enable complete analysis, classification, and characterization of the material under the HMR.
- (5) Statistical justification for sample frequencies;
- (6) Duplicate samples for quality assurance purposes; and
- (7) Criteria for modifying the sampling and testing program.

49 CFR 174.310(b)(1): Routing Analysis

PHMSA is proposing to add § 174.310(b)(1) requiring rail operators to conduct a routing and safety security analysis for HHFTs related to crude oil transportation. Specifically, PHMSA is proposing to require rail carriers compile annual data on specified shipments of hazardous materials, use the data to analyze safety and security risks along rail routes where those materials are transported, assess alternative routing options, and make routing decisions based on those assessments. This data will in turn be used by State and/or regional Fusion Centers that have been established to coordinate with state, local, and tribal officials on security issues and which are located within the area encompassed by the rail carrier's rail system.

49 CFR 171.16 Incident Reporting

Incident reports are currently required to be reported in §171.16 of the HMR. This includes requiring operators of HHFTs to file an incident report for a release of product during transportation. Due to an increase in the shipments of crude oil by rail, PHMSA expects an increase in the number of hazardous materials incidents specific to crude oil transportation. PHMSA proposes to capture incidents specific to crude oil transportation within this information collection.

3. Extent of automated information collection.

The burden has been made as simple as possible. The information requested is necessary to ensure safe operation. Information is considered critical in ensuring that rail cars containing crude oil are transported safely. The Government Paperwork Elimination Act directs agencies to allow the option of electronic filing and recordkeeping by October 2003, when practicable. Electronic filing and recordkeeping is authorized; however, PHMSA does not require these records to be submitted to us, so is not practicable.

4. Efforts to identify duplication.

There is no duplication, as the information is unique to the specific situation of transporting crude oil by rail. Therefore, PHMSA does not suspect this information is collected by any other entities.

5. Efforts to minimize the burden on small businesses.

The burden has been made as simple as possible.

6. Impact of less frequent collection of information.

The frequency, for the most part, is determined by those affected which in this case is the offerors and shippers of crude oil by rail. It is not possible to conduct the collection less frequently and still ensure the necessary level of safety to life and property inherent in transporting hazardous materials. The information collected as proposed in this NPRM is essential for both PHMSA and FRA to ensure the safe transportation of crude oil by rail. Without adequate testing data, PHMSA and FRA cannot assure that crude oil is properly classified and packaged in accordance with the HMR. Without proper routing analysis, states and local emergency responders may not have the adequate information to respond to a major incident involving crude oil transportation.

7. Special circumstances.

This collection of information is generally conducted in a manner consistent with the guidelines in 5 CFR 1320.5(d)(2).

8. Compliance with 5 CFR 1320.8.

PHMSA and FRA published an NPRM under Docket No. PHMSA-2012-0082 on August 12, 2014 in the Federal Register [79 FR 45015] requesting public comments. The comment period closes on September 30, 2014. There were over 3200 comments received which PHMSA continues to review and will respond to them in the package for the Final Rule.

9. Payments or gift to respondents.

There is no payment or gift provided to respondents associated with this collection of information.

10. Assurance of confidentiality.

None of the data collected contain personally identifiable information (PII) or business confidential information. Therefore, no guarantees of confidentiality are provided to applicants.

11. Justification for collection of sensitive information.

Not applicable. No sensitive information is required.

12. Estimate of burden hours for information requested.

Total estimate of annual burden hours:

First-Year Annual Burden:

Total Annual Number of Respondents:	1,612
Total Annual Responses:	1,801
Total Annual Burden Hours:	73,622
Total Annual Burden Cost:	\$5,393,387.92

Subsequent Year Burden:

Total Annual Number of Respondents:	1,612
Total Annual Responses:	1,801
Total Annual Burden Hours:	20,186
Total Annual Burden Cost:	\$1,469,349.76

Breakdown Estimate of Hours and Cost:

49 CFR 173.41 – Sampling and Testing Plans.

The NPRM requires that a report compiling sampling and testing procedures and tracking testing results be produced and made available on request and updated as necessary. The time necessary to document a sampling and testing program report is estimated at 40 hours per shipper. PHMSA estimates 10 hours per shipper to annually update a sampling and testing program.

PHMSA assumes a Chemical Engineer is the labor category most appropriate to describe the person responsible for sampling methodologies, testing protocols, and presenting test results. The median hourly wage for a Chemical Engineer is estimated at \$74.30. Based on data from the Hazmat Intelligence Portal (HIP), PHMSA estimates there are 1,538 entities that offer mined gases and liquids for transportation to which sampling and testing requirement could apply.

PHMSA estimates there are 1,538 offerors of mined liquids and gases and 40 hours for development and implementation of the sampling and testing program. Thus, for offerors subject to the sampling and testing program, PHMSA estimate the costs to develop and

implement a sampling and testing program will be \$4,571,000 (1,538 offerors x 40 hours/entity x \$74.30/hour).

Subsequent Year – Update

This NPRM also proposes to require companies that offer mined liquids and gases for transportation to update their sampling and testing program as necessary to account for changing circumstances. PHMSA assumes that companies will review and update their sampling and testing programs once a year. PHMSA estimates the costs to update a sampling and testing would be on average \$1,142,734 per year (1,538 offerors x 10 hours/entity x \$74.30/hour).

Sampling and Testing Plans	Respondents	Responses	Hours per Response	Total Hours	Cost per hour	Total Cost
Sampling and Testing Plan - Year 1	1,538	1,538	40	61,520.00	\$74.30	\$4,570,936.00
Sampling and Testing Plan - Subsequent year burden	1,538	1,538	10	15,380.00	\$74.30	\$1,142,734.00

49 CFR 174.310(b)(1) – Routing Analysis

Routing – Collection by Line Segment

The proposed rule would require a rail carrier transporting high-hazard flammable trains to use the data it compiles annually to analyze the safety and security risks for the transportation route(s) used by these trains. In performing this analysis the rail carrier must consult with state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets, countermeasures already in place, and the community emergency response capability along, or in proximity to, the route(s) utilized. This analysis will be conducted by both Class II and Class III railroads. The Surface Transportation board designates which class a railroad meets. A Class II is a railroad hauls freight and is mid-sized in terms of operating revenue. Railroads considered by the Association of American Railroads (AAR) as "Regional Railroads" are typically Class II. A Class III or short-line railroad and are typically local short-line railroads serving a small number of towns and industries or hauling cars for one or more larger railroads. Both Class II and Class III railroads are assumed to require 40 hours to collect the data they use to analyze routes. We expect 10 Class II and 64 Class III railroads to conduct an assessment of their line segments. The number of railroads to be analyzed is multiplied by the hourly labor rate (\$67.96) to develop costs for this task. PHMSA estimates the cost for routing analyses for Class II railroads will be \$27,184.00 (10 Class II Railroads x 40 hours/railroad x \$67.96/hour). PHMSA estimates the cost for routing analyses for Class III railroads will be \$173,977.60 (64 Class III Railroads x 40 hours/railroad x \$67.96/hour). The table below presents the estimated costs for this task.

Routing - Collection by Line Segment	Respondents	Responses	Hours per Response	Total Hours	Cost per hour	Total Cost
Class II Railroads	10	10	40	400.00	\$67.96	\$27,184.00
Class III Railroads	64	64	40	2,560.00	\$67.96	\$173,977.60
Subtotal	74	74		2,960		\$201,161.60

Routing – Security Analysis

The primary route security analyses conducted in year 1 will cost more than the analyses done in subsequent years due to amount of information needed to start the analyses. Much of this information will carry on to the security analyses done in subsequent years. In addition, Class II railroads are estimated to have more routes per carrier than the Class III railroads. Class II railroads also have a more complex route analyses to perform. It is estimated that 64 Class III railroads will analyze 128 routes. It is estimated that 10 Class II railroads will analyze 50 routes.

Class II railroads are estimated to require 80 hours per route to conduct the initial analysis of primary routes. PHMSA estimates the cost for Class II railroads will be \$271,840.00 (50 Class II railroad routes x 80 hours/railroad route x \$67.96/hour). A Class III railroad is estimated to require 40 hours per route. PHMSA estimates the cost for Class III railroads will be \$347,955.20 (128 Class III railroad routes x 40 hours/railroad route x \$67.96/hour). These costs are also presented in the table below.

Routing Security Analysis - Year 1	Respondents	Responses	Hours per Response	Total Hours	Cost per hour	Total Cost
Class II Railroads	10	50	80	4,000.00	\$67.96	\$271,840.00
Class III Railroads	64	128	40	5,120.00	\$67.96	\$347,955.20
Subtotal	74	178		9,120		\$619,795.20

After the first year's route analyses are completed, it is expected that analyses performed on the same routes in subsequent years will take less time. We anticipate the majority of the routes analyzed in year 1 will continue to be used in future years. Rail companies would analyze the same number of routes in later years as described above in the initial year analysis section. Class II railroads are estimated to require 16 hours per route to update route analyses on an annual basis. A Class III railroad is estimated to require 8 hours per route. PHMSA estimates the total cost for Class II railroads will be \$54,368.00 (50 Class II railroad routes x 16 hours/railroad route x \$67.96/hour). PHMSA estimates the total cost for Class III railroads will be \$69,591.04 (128 Class III railroad routes x 8 hours/railroad route x \$67.96/hour). The cost estimates for this task are also presented in the table below.

Routing Analysis Year 2-20	Respondents	Responses	Hours per Response	Total Hours	Cost per hour	Total Cost
Class II Railroads	10	50	16	800.00	\$67.96	\$54,368.00
Class III Railroads	64	128	8	1,024.00	\$67.96	\$69,591.04
Subtotal	74	178		1,824		\$123,959.04

49 CFR 171.16 - Incident Reporting

From 2011-2014, PHMSA identified 32 incidents, for an average of 11 incidents per year, involving the derailment and release of crude oil/ethanol. Each report would be submitted by a single respondent and would take approximately 2 additional hours to submit per response, compared to the current requirements. PHMSA estimates the total cost for incident reports will be \$1,495.12 (11 incidents x 2 hours per incident report x \$67.96/hour). The cost estimates for this task are also presented in the table below.

	Respondents	Responses	Hours per Response	Total Hours	Cost per hour	Total Cost
Crude Oil Incident Reporting	11	11	2	22.00	\$67.96	\$1,495.12

13. Estimate of total annual costs to respondents.

There estimated annual cost to respondents is \$5,393,387.92 in labor cost the first year for respondents; and \$1,469,349.76 for each subsequent year.

14. Estimate of cost to the Federal government.

The estimated cost to the federal government is approximately: \$100,385

Information collected under the sampling and testing program as well as the routing analysis is not received by the federal government. However, the sampling and testing plans as well as routing analysis may be reviewed by enforcement personnel on occasion. PHMSA expects enforcement personnel to spend up to 100 hours per year reviewing this data. This review will be performed by a GS 13 employee making 50\$ per hour. Each review will take approximately 2 hours. This will result in a total cost of \$100,000 to the federal government. In addition, incident reports related to crude oil transportation will be received by PHMSA. Incident reports received by PHMSA must be reviewed and placed into the incident reporting system. PHMSA expects to receive 11 additional incident reports as a result of this rulemaking. These reports will be reviewed and placed in the incident reporting system by a GS 11 employee making 35\$ per hour. Each incident report will take one hour to review and be placed into the incident reporting system. This will result in a total cost of \$385 to the federal government.

Section 171.16

The projected estimated annualized cost to the Federal government is approximately \$476.85. PHMSA estimates it will receive an average of 11 incident reports annually. The unit cost per incident report is calculated at \$43.55 which includes programmatic costs associated with government personnel and overhead.

15. Explanation of program changes or adjustments.

PHMSA is proposing to collect information that has not been collected before, resulting in a new information collection request

16. Publication of results of data collection.

There is no publication for statistical use and no statistical techniques are involved.

17. Approval for not displaying the expiration date of OMB approval.

Upon OMB approval of this new information collection request, this information collection OMB Control number will be displayed in the HMR, specifically under § 171.6, entitled, "Control Numbers under the Paperwork Reduction Act."

18. Exceptions to certification statement.

There is no exception to the certification of this request for information collection approval.