

**Department of Transportation  
Office of the Chief Information Officer  
Supporting Statement  
1Hazardous Materials Shipping Papers and Emergency Response Information**

(Expiration Date: December 31, 2022)

**Introduction**

This is to request approval from the Office of Management and Budget (OMB) for a renewal with revision of the information collection titled, “Hazardous Materials Shipping Papers and Emergency Response Information,” under OMB Control No. 2137-0034. This information collection is currently due to expire on December 31, 2022. This OMB Control Number covers hazardous materials shipping papers and emergency response information, which in accordance with the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180), are required to accompany each shipment of hazardous materials in commerce.

This information collection is being revised based on PHMSA’s final rule published on May 11, 2020, titled “Hazardous Materials: Harmonization With International Standards” [HM-2150, 85 FR 27810]. This final rule harmonized the HMR with international regulations, including adding a requirement for the creation of a lithium battery test summary document for lithium cells and batteries manufactured after January 1, 2008.

**Part A. Justification:**

1. Circumstances that make collection of information necessary

This is a request for a renewal with change of an existing information collection for information requirements pertaining to shipping papers and emergency response information under the HMR. This information collection supports the Departmental Strategic Goal for Safety. These regulations are promulgated under the Federal hazardous material transportation law, 49 U.S.C. 5101-5128.

Shipping papers and emergency response information are a basic communication tool for the transportation of hazardous materials. Section 171.8 defines a shipping paper as a shipping order, bill of lading, manifest, or other shipping document serving a similar purpose and containing the information required by §§ 172.202, 172.203, and 172.204. A shipping paper with emergency response information must accompany most hazardous materials shipments and be readily available at all times during transportation. It serves as the principal source of information regarding the presence, identification, and quantity of hazardous materials, as well as relevant emergency response procedures. It also serves as the source of information necessary to comply with other requirements, e.g., correctly placing and configuring rail cars in a shipment; preventing poisons from being loaded alongside foodstuffs; ensuring the separation of incompatible hazardous materials; and limiting the amount of radioactive materials that may be transported in a vehicle or aircraft. Shipping papers and emergency response information serve

as a means of notifying transport workers that hazardous materials are present. Most importantly, shipping papers serve as a principal means of identifying hazardous materials during transportation emergencies. Firefighters, police, and other emergency response personnel are trained to obtain the Department of Transportation (DOT) shipping papers and emergency response information when responding to hazardous materials transportation emergencies. The availability of accurate information concerning hazardous materials being transported significantly improves response efforts in these types of emergencies.

It is necessary that hazardous materials and emergency response information be displayed on shipping papers in a uniform manner to ensure accuracy and consistency. The HMR require that when hazardous materials and non-hazardous materials are described on the same shipping paper, the hazardous materials be entered first, entered in a color that clearly contrasts with any description of materials not subject to the requirements, or identified with an "x" in an HM column.

Experience has shown that some shipping papers may contain many different items in a shipment. To require emergency response personnel to sort through multiple entries to determine which hazardous materials are present, in an emergency situation, would cause serious delays in making proper determinations concerning the mitigation of the accident. Therefore, shipping paper requirements include emergency response information along with the standard information that must be communicated on shipping papers.

Uniformity of national and international hazardous materials transportation regulations is critical to enhance safety and facilitate trade. Consistency between U.S. and international regulations helps to assure the safety of international hazardous materials transportation through a better understanding of the regulations, an increased level of industry compliance, the smooth flow of hazardous materials from their points of origin to their points of destination, and consistent emergency response in the event of a hazardous materials incident. Many shippers find that consistency in requirements aids their understanding of what is required, thereby permitting them to more easily comply with the regulations when shipping hazardous materials in international commerce.

To facilitate the safe and efficient transportation of hazardous materials in international commerce, the HMR, with certain limitations, permit both domestic and international shipments of hazardous materials to be offered for transportation and transported under provisions of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI), the International Maritime Dangerous Goods Code (IMDG Code), the Canadian Transportation of Dangerous Goods Regulations (TDG Regulations), and the International Atomic Energy Agency Safety Standards Series: Regulations for the Safe Transportation of Radioactive Material (IAEA Regulations), as appropriate.

Furthermore, when a hazardous material is transported by aircraft, § 175.33 of the HMR includes additional requirements for a notification to the pilot in command (NOPIC) to include information of the flight. This information is required to be maintained similar to a shipping paper.

Lastly, on May 11, 2020, PHMSA published a final rule titled “Hazardous Materials: Harmonization With International Standards” [HM-215O, 85 FR 27810]. This final rule harmonized the HMR with international regulations, including adding a requirement for the creation of a lithium battery test summary document for lithium cells and batteries manufactured after January 1, 2008. As a result of this rulemaking, PHMSA is adding two new information collections to this OMB Control Number, as the documentation provides similar communication to shipping papers. The first information collection is a reporting burden for the creation of the test summary document. The second information collection is the recordkeeping requirement, as the test summaries may be requested from the manufacturers or subsequent distributors.

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

The shipping paper is considered a basic hazard communication tool when transporting hazardous materials by all modes of transport. For example, it is the mechanism by which an aircraft operator knows the nature and potential of hazardous cargo on board the aircraft. It informs railroad employees of the potential hazards of the cargo and is the primary means of communicating information required to properly place and handle cars within trains. Shipping papers communicate information on cargo compatibility to motor carrier personnel and emergency responders, and advise vessel masters where hazardous material cargo should be stowed to assure compatibility and accessibility. Consequences which could result from not having the required information on shipping papers include, but are not limited to:

- a. Co-mingling of hazardous materials in a shipment that could react chemically and cause explosion, fire, poison gas emissions, or other types of reactions in the event of a container failure or accident.
- b. Contamination of foodstuffs and feed by poisons being shipped on the same transport vehicle.
- c. Shipment of radioactive materials in a single transport vehicle in quantities which could exceed criticality safety controls, resulting in excessive exposure to vehicle operators/crew or passengers, or with non-radioactive materials (such as x-ray film) that could be contaminated by the radiation emitted from packages of radioactive materials.
- d. Shipment of hazardous materials in quantities greater than authorized to be carried in passenger-carrying vehicles.
- e. Shipment of forbidden materials aboard passenger-carrying aircraft, the release of which could cause death or illness among passengers and crew due to contamination of, or structural damage to, an aircraft.
- f. Injury, death, and/or severe environmental damage due to lack of accurate emergency response communication information.
- g. Incorrect emergency response procedures, e.g., firefighters may attempt to extinguish burning materials that are water-reactive with water, leading to catastrophic consequences.

### 3. Extent of automated information collection

PHMSA continues to update the HMR to ensure that the burden has been made as simple as possible. DOT's emphasis for shipping paper requirements is that the information be displayed consistently and be easily recognizable. Any document, meeting the definition of a shipping paper in § 171.8 and the requirements in Subpart C and G of Part 172, used in the normal course of business, is considered a shipping paper. The Government Paperwork Elimination Act directs agencies to allow the option of electronic filing and recordkeeping by October 2003, when practicable. To ensure consistency and to be immediately available for emergency responders in the event of an incident, shipping papers are not authorized in electronic form. However, PHMSA does not restrict the use of electronic forms *in addition* to paper copies. Additionally, PHMSA does not require every shipping paper to be submitted to us. However, PHMSA does not restrict the lithium battery test summary document to be electronic and PHMSA anticipates that these test documents be available in an electronic format, either in a publicly available database or provided to any interested parties in an electronic format.

### 4. Efforts to identify duplication

PHMSA has done its due diligence to identify that the documentation in this OMB Control Number are not duplicated. PHMSA requires that shipping papers include certain hazardous material and emergency response information, but it does not require the use of a specific form. If the required information is presented on a form required by another Federal agency, PHMSA authorizes the use of that form. For instance, PHMSA and the Environmental Protection Agency (EPA) coordinated on the hazardous waste manifest requirements to avoid duplication. EPA agreed that PHMSA regulations prevail for carriers of hazardous wastes, and it revised its manifest requirements so that the entries required to comply with both EPA hazardous waste requirements and PHMSA shipping paper and emergency response information requirements could be made on one document.

To a limited degree, some of the information required on the shipping papers is already available through required markings on the outside of packages. However, it would be very difficult to accomplish effective communication for emergency response and compliance with various transportation requirements by using only the markings on packages. In most cases, the packages are not visible during transportation and would not provide the same benefit as the shipping paper and emergency response information in ensuring effective communication.

### 5. Efforts to minimize the burden on small businesses

Unless specifically excepted in the HMR, shipping papers and emergency response information must be prepared by all persons offering hazardous materials for transportation. Because the benefits to safety outweigh a reduction in small business burden, the applicability of shipping paper and emergency response information is based on the hazardous materials transported, and not business size.

6. Impact of less frequent collection of information

This is a one-time requirement each time a hazardous material shipment is offered for transportation in commerce. The impact of not collecting this information would be the loss of information essential to emergency responders. Additionally, the lithium battery test summary document is only required upon manufacturer or a new type of lithium cell or battery. Once the original lithium cell or battery type is developed, the document does not need to be recreated.

7. Special circumstances

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

- a. It is not possible to eliminate or shorten the information required by the HMR for shipping papers and still provide the information necessary for emergency response personnel, carriers, and transport workers.
- b. Shipping papers are already required to be retained by other Federal and state requirements, and therefore, are not considered duplicative. PHMSA has no discretion regarding this requirement.
- c. Hazardous materials shipping paper and emergency response information is also required when transporting hazardous materials in international commerce.

8. Compliance with 5 CFR 1320.8

PHMSA published a notice of proposed rulemaking (NPRM) under Docket HM-2150 on November 27, 2018 [83 FR 60970]. The NPRM request comment on this provision and information collection. While PHMSA received comments to the NPRM, no comments were received related to this information collection.

PHMSA published a final rule under the same docket on May 11, 2020, [HM-2150, 85 FR 27810] which codified the requirement that amended the burden in this OMB Control Number.

9. Payments or gifts 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. No guarantees of confidentiality are provided to applicants.

11. Justification for collection of sensitive information

Not applicable. Information is not of a sensitive nature.

12. Estimates of burden hours for information requested

| <u>Total Number of Respondents</u> | <u>Total Number of Annual Responses</u> | <u>Total Annual Burden Hours</u> | <u>Total Annual Salary Costs</u> | <u>Total Burden Cost</u> |
|------------------------------------|---|----------------------------------|----------------------------------|--------------------------|
| 266,013                            | 177,289,384                             | 4,608,841                        | \$115,817,710                    | \$0                      |

It is estimated that approximately 260,000 shippers/carriers of hazardous materials (including hazardous waste and hazardous substances) will prepare an average of 674 shipping papers and emergency response information annually for a total of 175,262,735 shipping papers (260,000 respondents x 674 shipping papers/respondent). Each shipping paper, with emergency response information, will take approximately 1.6 minute to prepare for approximately 4,599,426 annual burden hours (175,262,735 shipping papers x 1.6 minutes). PHMSA estimates approximately \$24.77/hour in salary costs<sup>1</sup> for a total of \$113,941,851 (4,599,426 burden hours x \$16.30/hour). However, PHMSA estimates there is no out-of-pocket expenses for the shipping paper burden.

| <u>Information Collection</u>  | <u>Number of Respondents</u> | <u>Annual Number of Shipping Papers per Respondent</u> | <u>Total Annual Respondents</u> | <u>Minutes per Response</u> | <u>Total Burden Hours</u> | <u>Salary Cost per Hour</u> | <u>Total Salary Cost</u> | <u>Total Burden Cost</u> |
|--|------------------------------|--|---------------------------------|-----------------------------|---------------------------|-----------------------------|--------------------------|--------------------------|
| Hazardous Materials Shipping Papers & Emergency Response Information | 260,000                      | 674  | 175,262,735                     | 1.6                         | 4,599,426                 | \$24.77                     | \$113,941,851            | \$0                      |

It is estimated that approximately 150 pilots will be required to sign a Notification of Pilot in Command (NOPIC) and will sign an average approximately 13,365 NOPICs each year<sup>2</sup>, for a total of 2,004,717 NOPIC signatures (150 respondents x 13,365 NOPIC/respondent). Each NOPIC will take approximately 11 seconds to sign for approximately 5,961 annual burden hours (2,004,717 NOPIC x 11 seconds). PHMSA estimates approximately \$275.84/hour in salary

<sup>1</sup> Occupation labor rates based on 2018 Occupational and Employment Statistics Survey (OES) for “Office Clerks, General (43-9061).” <https://www.bls.gov/oes/current/oes439061.htm> The hourly mean wage for this occupation (\$16.92) is adjusted to reflect the total costs of employee compensation based on the BLS Employer Costs for Employee Compensation Summary, which indicates that wages for civilian workers are 68.3 percent of total compensation (total wage = wage rate/wage % of total compensation).

<sup>2</sup> The average number of NOPICs signed each year is based on FAA estimates.

costs<sup>3</sup> for a total of \$1,644,331 (5,961 burden hours x \$179.20/hour). However, PHMSA estimates there is no out-of-pocket expenses for the shipping paper burden.

| <b><u>Information Collection</u></b> | <b><u>Annual Number of Respondents</u></b> | <b><u>Annual Number of Responses</u></b> | <b><u>Total Responses</u></b> | <b><u>Seconds per Response</u></b> | <b><u>Total Burden Hours</u></b> | <b><u>Salary Cost per Hour</u></b> | <b><u>Total Salary Cost</u></b> | <b><u>Total Burden Cost</u></b> |
|--------------------------------------|--|--|-------------------------------|------------------------------------|----------------------------------|------------------------------------|---------------------------------|---------------------------------|
| Notice of Pilot in Command           | 150  | 13,365                                   | 2,004,717                     | 11                                 | 5,961                            | \$275.84                           | \$1,644,331                     | \$0                             |

PHMSA estimates that per U.S. Census’ Annual Survey of Manufacturers (NAICS code 334912) there are 73 domestic lithium cell or battery manufacturers.<sup>4</sup> Based on review of these manufacturers websites, PHMSA estimates that approximately 32 new types of lithium cells or batteries are manufactured each year, requiring the creation of the lithium battery test document, for a total of 2,336 test summary documents (73 respondents x 32 responses). Based on reviewing the information required in the test document, PHMSA conservatively estimates it will take 30 minutes to develop the document, for a total of 1,168 annual burden hours. PHMSA also estimates a salary cost of \$67.03/hour<sup>5</sup> for a total of \$78,288 in salary cost (1,168 burden hours x \$67.03/hour). PHMSA does not estimate any out of pocket expenses.

| <b><u>Information Collection</u></b>     | <b><u>Number of Respondents</u></b> | <b><u>Number of Responses</u></b> | <b><u>Total Responses</u></b> | <b><u>Minutes per Response</u></b> | <b><u>Total Burden Hours</u></b> | <b><u>Salary Cost per Hour</u></b> | <b><u>Total Salary Cost</u></b> | <b><u>Total Burden Cost</u></b> |
|--|-------------------------------------|-----------------------------------|-------------------------------|------------------------------------|----------------------------------|------------------------------------|---------------------------------|---------------------------------|
| Lithium Battery Test Summary - Reporting | 73                                  | 32                                | 2,336                         | 30                                 | 1,168                            | \$67.03                            | \$78,288                        | \$0                             |

PHMSA estimates that there may be 5,790 respondents, including lithium cell and battery manufacturers and subsequent distributors, who may need to make the lithium test summary available. This estimate includes downstream distributors of lithium cells and batteries comprised of product manufacturers and distributors/retails<sup>6</sup> and domestic lithium cell and

<sup>3</sup> BLS Occupational Employment and Wages, May 2018: 53-2011 Airline Pilots, Copilots, and Flight Engineers, the mean annual wage is \$169,560 (<https://www.bls.gov/oes/current/oes532011.htm>). Federal regulations set the maximum work hours and minimum requirements for rest between flights for most pilots. Airline pilots fly an average of 75 hours per month, therefore the hourly mean wage rate is \$188.40 = \$169,560/(75 hours/month x 12 months). The hourly mean wage for this occupation (\$188.40) is also adjusted to reflect the total costs of employee compensation based on the BLS Employer Costs for Employee Compensation Summary, which indicates that wages for civilian workers are 68.3 percent of total compensation (total wage = wage rate/wage % of total compensation).

<sup>4</sup> 2015 County Business Patterns. “Geography Area Series: County Business Patterns by Legal Form of Organization.” 2016 Annual Survey of Manufactures. Annual Survey of Manufactures: General Statistics: Statistics for Industry Groups and Industries: 2016 and 2015.

<sup>5</sup> Occupation labor rates based on 2017 Occupational and Employment Statistics Survey (OES) for “Electrical Engineers (17-2070)” in the Other Electrical Equipment and Component Manufacturing industry. The hourly mean wage for this occupation (\$45.78) is adjusted to reflect the total costs of employee compensation (i.e., benefits) based on the BLS Employer Costs for Employee Compensation Summary, which indicates that wages for civilian workers are 68.3 percent of total compensation (total wage \$67.0278 = wage rate \$45.78/wage % of total compensation 68.3%).

<sup>6</sup> PHMSA examined entities in NAICS codes for battery retailers, wholesalers, and merchants (NAICS 453998 & 423610) and identified the percentage of entities in each NAICS industry that is involved in distributing batteries

battery manufactures. Based on a wide range of respondent activities, PHMSA estimates that, on average, each respondent will need to provide the test summary 3 times per year, for a total of 19,596 annual responses (5,790 respondents x 3 responses). PHMSA anticipates that these documents will be made available in an accessible manner, and thus will take 7 minutes per response to provide this document, for a total of 2,286 burden hours (19,596 responses x 7 minutes). PHMSA estimates a salary cost of \$67.03/hour<sup>7</sup> for a total of \$153,239 in salary cost (2,286 burden hours x \$67.03/hour). PHMSA does not estimate any out of pocket expenses.

| <b><u>Information Collection</u></b>         | <b><u>Number of Respondents</u></b> | <b><u>Number of Responses</u></b> | <b><u>Total Responses</u></b> | <b><u>Minutes per Response</u></b> | <b><u>Total Burden Hours</u></b> | <b><u>Salary Cost per Hour</u></b> | <b><u>Total Salary Cost</u></b> | <b><u>Total Burden Cost</u></b> |
|--|-------------------------------------|-----------------------------------|-------------------------------|------------------------------------|----------------------------------|------------------------------------|---------------------------------|---------------------------------|
| Lithium Battery Test Summary - Recordkeeping | 5,790                               | 3                                 | 19,596                        | 7                                  | 2,286                            | \$67.03                            | \$153,239                       | \$0                             |

13. Estimate of total annual costs to respondents

There is no cost burden to respondents except those identified in item 12 above.

14. Estimate of annualized cost to the Federal Government

There is no additional cost to the Federal Government beyond its normal daily operations, because shipping papers and emergency response information are not reviewed or approved by the Federal Government, except during normal enforcement operations.

15. Reasons for change in burden

This information collection is being revised based on PHMSA’s final rule published on May 11, 2020, titled “Hazardous Materials: Harmonization With International Standards” [HM-2150, 85 FR 27810]. This final rule harmonized the HMR with international regulations, including adding a requirement for the creation of a lithium battery test summary document for lithium cells and batteries manufactured after January 1, 2008.

16. Plans for tabulation, statistical analysis and publication

There is no publication of this information collection including for statistical use, and no statistical techniques are involved.

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based on the sub-NAICS product series information provided in the 2012 Economic Census by Industry. PHMSA multiplied this percent by the more recent, 2016 County Business Patterns estimate of the total number of entities to estimate the number of potentially impacted respondents.

<sup>7</sup> Ibid.



17. Display of expiration date of OMB Approval

The information collection OMB number is prominently displayed in 49 CFR 171.6 as “Control Numbers under the Paperwork Reduction Act.”

18. Exceptions to certification statement

There is no exception to PHMSA’s certification of this request for information collection approval.