

**Supporting Statement for
Paperwork Reduction Act Submissions**

OMB No.: 1219-0147

Title: Coal Mine Dust Sampling Devices

Authority:

1. 30 CFR 74.7 - Design and construction requirements.
2. 30 CFR 74.8 - Measurement, accuracy, and reliability requirements.
3. 30 CFR 74.11 - Tests of the continuous personal dust monitor.
4. 30 CFR 74.13 - Applications.
5. 30 CFR 74.16 - Material required for record.

Form Number(s): None

General Instructions

A Supporting Statement, including the text of the notice to the public required by 5 CFR 1320.5(a)(i)(iv) and its actual or estimated date of publication in the Federal Register, must accompany each request for approval of a collection of information. The Supporting Statement must be prepared in the format described below, and must contain the information specified in Section A below. If an item is not applicable, provide a brief explanation. When the question "Does this ICR contain surveys, censuses or employ statistical methods" is checked "Yes", Section B of the Supporting Statement must be completed. OMB reserves the right to require the submission of additional information with respect to any request for approval.

Specific Instructions

A. JUSTIFICATION

1. **Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

Section 103(h) of the Federal Mine Safety and Health Act of 1977 (Mine Act), 30 U.S.C. 813(h), authorizes the Mine Safety and Health Administration (MSHA) to collect information necessary to carry out its duty in protecting the safety and health of miners. Further, section 101(a) of the Mine Act, 30 U.S.C. 811, authorizes the Secretary of Labor to develop, promulgate, and revise as may be appropriate,

improved mandatory health or safety standards for the protection of life and prevention of injuries in coal and metal and nonmetal mines.

Continuous Personal Dust Monitors (CPDM) determine the concentration of respirable dust in coal mines. CPDMs must be designed and constructed for coal miners to wear and operate without impeding their ability to perform their work safely and effectively, and must be durable to perform reliably in the normal working conditions of coal mines. Paperwork requirements for applicants are related to the application process and CPDM testing procedures to determine whether a CPDM that is submitted for approval meets established criteria for use in underground coal mines.

- 2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

MSHA and the National Institute for Occupational Safety and Health (NIOSH) will use the information sent by the applicant to determine if the CPDM meets established criteria for use in underground coal mines.

- 3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.**

MSHA accepts approval applications, correspondence, and information electronically via the Internet or email. Applicants are able to upload engineering drawings (images) and files directly to the Arlington File Transfer Protocol (FTP) site server or via the IPSO@dol.gov email account.

- 4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.**

The applications, consisting of complete scale drawings, specifications, and a description of materials, are unique to each application for approval. There is no duplication of information as a result of this collection.

- 5. If the collection of information impacts small businesses or other small entities describe any methods used to minimize burden.**

The collection will not have a significant impact on a substantial number of small entities.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

Before CPDMs can be introduced in coal mines, they must be approved for use by MSHA. The approval criteria established in 30 CFR Part 74 requires manufacturers to demonstrate that CPDMs are durable enough to withstand the mine environment, can be worn by miners performing normal tasks for an entire work shift, provide accurate and precise measurements, and can be safely used in mine atmospheres where explosive mixtures of gases may occur.

If MSHA does not conduct this information collection or conducts it less frequently, the Agency may not adequately protect the health and safety of our nation's miners, which is required by the Mine Act.

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- requiring respondents to report information to the agency more often than quarterly;
- requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;
- requiring respondents to submit more than an original and two copies of any document;
- requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;
- in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;
- requiring the use of a statistical data classification that has not been reviewed and approved by OMB;
- that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or
- requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

This collection of information is consistent with the guidelines in 5 CFR Section 1320.5.

8. If applicable, provide a copy and identify the data and page number of publication in the Federal Register of the agency's notice, required by 5 CFR

1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years – even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

MSHA published a 60-day *Federal Register* notice on July 31, 2019 (84 FR 37352). MSHA received no public comments.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

MSHA has provided no payments or gifts to the respondents identified in this collection.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

There is no assurance of confidentiality provided to respondents.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

There are no questions of a sensitive nature.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the**

variance. Generally, estimates should not include burden hours for customary and usual business practices.

- **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 13.**

Section 74.13(b) requires an engineer to submit a written application for approval in duplicate to MSHA and NIOSH. MSHA estimates that it takes an engineer, earning \$63.00 per hour ¹, a total of 40 hours to prepare and compile the materials needed to accompany an application. MSHA estimates that it takes a clerical employee, earning \$32.20 per hour ², 15 minutes to copy and send an application. MSHA estimates that a clerical employee will send two copies of the application to MSHA and 2 copies to NIOSH. Table 1 shows the burden hours and related costs to prepare the application and mail the copies.

Table 1: Estimated Annual Respondent Hour and Cost Burden

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
No. of Applicants	Time to Compile Material (hours)	Time to Copy & Send Material (minutes)	No. of Copies Filed per Application	Burden Hours to Compile Materials for Application	Burden Hours to Copy and Send Materials	Engineer Hourly Wage Rate	Clerical Employee Hourly Wage Rate	Total Burden Cost ^a
1	40	15	4	40	1	\$63.00	\$32.20	\$2,522

^a Total Annual Burden Costs (col. i) = (col. e x col. g) + (col. f x col. h).

Total Burden hours = 41
Total Responses = 1
Total Respondents = 1

¹ For all wage rates, MSHA uses the relevant precision throughout the calculation to avoid compound rounding errors and rounds at the final rate value. Displayed intermediate calculation values are presented to explain the calculation and are representative but the final rate value reflects the correct rounding and final estimate.

For the supervisor worker hourly wage rate, MSHA used the employment weighted mean hourly wage from the Occupational Employment Statistics (OES) May 2018 survey, for four Engineering occupations from Standard Occupational Classification (SOC) major group code 17 North American Industry Classification System (NAICS) historically represented in the approval requests. The weighted mean was adjusted for benefits and inflation to obtain a fully loaded rate of \$63.00 (\$41.20 x 1.49 x 1.020). All subsequent uses of \$63.00 represent an engineer's hourly rate.

² For the clerical worker hourly wage rate, MSHA used the employment weighted mean hourly wage from the OES May 2018 survey, for four clerical worker occupations from SOC major group code 13 and 43 NAICS historically represented in the approval requests. The weighted mean hourly wage rate was adjusted for benefits and inflation to obtain a fully loaded rate of \$32.20 (\$21.19 x 1.49 x 1.020). All subsequent uses of \$32.20 represent clerical employee's hourly rate.

13. Provide an estimate of the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burdens already reflected on the burden worksheet).

- **The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life); and (b) a total operation and maintenance and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**
- **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.**
- **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

Sections 74.7 and 74.8 require the applicant to have a third party perform tests of the CPDM. These tests are for the following: ergonomic design (section 74.7(b)); environmental conditions (section 74.7(e)); electromagnetic interference (section 74.7(f)); flow stability and calibration of pump (section 74.7(j)); and accuracy testing, which includes reliability measurement, precision, and bias testing (sections 74.8(c), (d), and (e)). MSHA estimates that it costs approximately \$250,000 to perform these tests. MSHA's estimate of the costs to perform these tests is based on the cost of the tests provided by MSHA's Coal Mine Safety and Health Division.

Section 74.11 requires that the applicant submit the CPDM to MSHA for testing and evaluation, under section 18.68, to determine whether the electronic components of the CPDM submitted for approval meet the applicable permissibility requirements. The following tests would be performed by MSHA under section 18.68(a)(1): current limiting resistor adequacy test; coal dust thermal ignition test; optical isolator test; impact test and force test of encapsulated electrical assemblies; drop testing intrinsically safe apparatus; mechanical test of partitions; piezoelectric device impact

test; and dielectric strength test. The battery flash current test would be performed under sections 18.68(a)(1) and (b)(1). The methane thermal ignition test would be performed under sections 18.68(a)(1) and (b)(6). The maximum surface temperature test would be performed under section 18.68(a)(1) and (b)(3). The spark ignition test would be performed under sections 18.68(a)(1), (a)(2), (a)(4), (a)(5), (b)(4), and (b)(5).

MSHA estimates that it will take an average of 45 hours to evaluate and 40 hours to test each application. MSHA charges an hourly fee of \$184 per hour for evaluation and testing time. Table 2 shows that the estimated annual cost for MSHA to perform evaluation and testing on the application is approximately \$15,640.

Table 2: Annual Costs for MSHA Evaluation and Testing

(a)	(b)	(c)	(d)	(e)
No. of Applicants	Time for Evaluation (in hrs.)	Time for Testing (in hrs.)	Hourly Rate	Annual Cost ^a
1	45	40	\$184	\$15,640

^a Annual Cost = col. a x [(col. b x col. d) + (col. c x col. d)].

Section 74.13(b) requires an applicant to submit a written application for approval to MSHA and NIOSH in duplicate. Four copies would need to be made (two copies for MSHA and two copies for NIOSH). Table 3, shows that the estimated annual costs to submit the applications are \$170.

Table 3: Annual Burden Cost to Copy and Submit Applications

(a)	(b)	(c)	(d)	(e)	(f)
No. of Applicants	No. of copies filed per Applicant	No. of pages per Application	Copy Cost per page	Postage Cost per Application	Annual Cost ^a
1	4	250	\$0.15	\$5	\$170

^a Annual Cost = col. a x col. b x [(col. c x col. d) + col. e].

Section 74.16(a) requires that MSHA and NIOSH each retain one CPDM, submitted with the application. In addition, section 74.16(b) requires that NIOSH receive one commercially produced CPDM free of charge, if it is approved by NIOSH and MSHA. MSHA estimates that a CPDM would cost approximately \$18,000. MSHA estimates the cost to provide two CPDMs with the application to be \$36,000.

Total Question 13 Costs = \$301,810 (\$250,000 + \$15,640 + \$170 + \$36,000).

- 14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information. Agencies also may aggregate cost estimates from Items 12, 13, and 14 in a single table.**

There are no Federal costs associated with this collection of information package.

- 15. Explain the reasons for any program changes or adjustments reported on the burden worksheet.**

Cost to Respondents: An increase in the average hourly rate that MSHA charges for Evaluation and Testing resulted in an increase the annual cost burden described in Item 13 from \$296,455 to \$301,810.

Burden hours: There were no changes in burden hours. The burden hours remained at 41 hours.

Respondents: There were no changes in the number of respondents. The response count remained at 1.

Responses: There were no changes in the number of responses. The number responses remained at 1.

- 16. For collections of information whose results will be published, outline plans for tabulation, and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.**

MSHA does not intend to publish the results of this information collection.

- 17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

MSHA is not seeking approval to not display the expiration date for OMB approval of this information collection.

- 18. Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions."**

There are no certification exceptions identified with this information collection.

B. Collections of Information Employing Statistical Methods.

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There is no statistical methodology involved in this collection.