

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

Supporting Statement for Paperwork Reduction Act Submissions

This Information Collection Request (ICR) seeks to extend, without change, a currently approved information collection.

OMB Control Number: 1219-0135

Information Collection Title: Health Standards for Diesel Particulate Matter Exposure (Underground Metal and Nonmetal Mines)

Form Number(s): None

Authority: 30 CFR sections 57.5060(c) and (d)(3) through (8); 57.5065(a); 57.5066(b) and (c); 57.5070; 57.5071; 57.5075(a), (b)(3), and (b)(4)

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(a), authorizes the Secretary of Labor (Secretary) 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 (MNM).

Diesel particulate matter (DPM) is a carcinogen that consists of tiny particles present in diesel engine exhaust that can penetrate into the lungs. Despite ventilation, the confined underground mine work environment may contribute to significant concentrations of particles produced by equipment used in the mine. Underground miners are exposed to higher concentrations of DPM than any other occupational group. As a result, they face a greater risk than other workers of developing such diseases as lung cancer, heart failure, serious allergic responses, and other cardiopulmonary problems.

The DPM regulations established a permissible exposure limit (PEL) to total carbon, which is a surrogate for measuring a miner's exposure to DPM. These regulations include a number of other requirements for the protection of miners' health. The DPM regulations contain information collection requirements for underground MNM mine operators under 30 CFR sections 57.5060, 57.5065, 57.5066, 57.5070, 57.5071, and 57.5075.

Section 57.5060(c) Special Extensions

Under section 57.5060(c), a mine operator needing additional time to comply with DPM PEL (160TC $\mu\text{g}/\text{m}^3$) due to technological or economic constraints, is allowed to file with the District Manager an application for a special extension of time in which to comply with DPM PEL. The provision does not restrict the number of times the mine operator may apply for a special extension, provided each extension is no longer than 1 year.

Section 57.5060(d)(3) through (d)(8)

Under this section, mine operators must provide, at no cost to the miner, a confidential medical evaluation by a physician or other licensed health care professional (PLHCP) to determine the miner's ability to use a respirator before the miner is fit tested or required to work in an area of the mine where respiratory protection must be used. The miner must be reevaluated when the mine operator has reason to believe that conditions have changed which could adversely affect the miner's ability to wear the respirator. The DPM requirements provide miners the right to discuss their medical evaluations with the PLHCP before the PLHCP submits a copy of the written determination to the mine operator regarding the miner's ability to wear a respirator. The miner may submit to the PLHCP additional evidence of the miner's medical condition.

The mine operator must have a written record of the most recent medical evaluation to confirm that the miner was evaluated. In addition, this section includes requirements for transferring a miner to an existing job in an area of the mine where respiratory protection is not required if a PLHCP has determined that the miner's medical condition precludes the miner from safely wearing any required respirator, including a powered air-purifying respirator (PAPR).

Section 57.5060(d)(3) requires the mine operator to provide a confidential medical evaluation by a PLHCP to determine the miner's ability to use a respirator before the miner is required to be fit tested or to use a respirator at the mine. The mine operator must provide the medical evaluation to the miner and pay the cost of the medical evaluation. Mine operators must ensure that the

PLHCP administers the testing in a manner that protects the confidentiality of the miner being evaluated.

If the PLHCP determines that the miner is able to wear a negative-pressure respirator, the mine operator must provide it and require its use. When respiratory protection is required, the mine operator must establish a respiratory protection program that complies with MSHA's respiratory protection standards for control of airborne contaminants at MNM mines in section 57.5005(a) and (b) and with requirements in the DPM standard under paragraphs (d)(1) and (d)(2) addressing appropriate DPM filters for air-purifying respirators. However, if the PLHCP concludes that the miner is unable to wear a negative-pressure respirator, the mine operator must make certain that the PLHCP also determines the miner's ability to wear a PAPR. If the PLHCP finds that the miner is able to wear a PAPR, the mine operator must provide the PAPR and require the miner to wear it.

A miner is not to be assigned to tasks in the mine that require use of a respirator unless a PLHCP makes a written determination that the miner is physically able to perform the work to which the miner is assigned while using the respirator.

Section 57.5060(d)(4) requires mine operators to provide the miner with an opportunity to discuss their medical evaluation results with the PLHCP before the PLHCP submits the written determination to the mine operator. If the miner disagrees with the determination of the PLHCP, the miner has up to 30 days to submit to the PLHCP additional evidence of his or her medical condition. Depending upon the miner's medical history, it may be critical for the miner to discuss any discrepancies or errors in a PLHCP's determination. The miner, however, may at any time provide additional medical information to the mine operator if the miner believes that it may impact the miner's ability to wear a respirator.

Section 57.5060(d)(5) requires mine operators to obtain a written determination from the PLHCP regarding the miner's ability to wear a respirator. The mine operator must ensure that the PLHCP provides a copy of the determination to the miner.

Section 57.5060(d)(6) requires mine operators to reevaluate the miner when the operator has reason to believe that conditions have changed. Such conditions may include a reassignment of the miner to a new task requiring a significant increase in physical exertion, or the miner is assigned to work at a lower level of a deep mine where conditions such as heat impose greater physiological stress.

Section 57.5060(d)(7)

Upon written notification that the PLHCP has determined that the miner is unable to wear a respirator (including a PAPR), this section requires that the miner must be transferred within 30 days of the PLHCP's determination to work in an existing position in an area of the same mine where respiratory protection is not required. The miner must continue to receive compensation at no less than the regular rate of pay in the classification held by that miner immediately prior to the transfer. However, wage increases of the transferred miner must be based on the new work classification.

Section 57.5060(d)(8) requires mine operators to maintain a record of the identity of the PLHCP and the most recent written determination of each miner's ability to wear a respirator for the duration of the miner's employment plus 6 months.

Section 57.5065(a) requires mine operators to retain for 1 year purchase records showing compliance with the requirement that diesel fuel used to power equipment underground does not have a sulfur content greater than 0.05 percent.

Section 57.5066(b) requires mine operators to authorize miners operating diesel-powered equipment to tag diesel-powered equipment when the miner notes evidence that the equipment may require maintenance to comply with the maintenance requirements in this section. Each time there is an emission-related problem on a piece of diesel-powered equipment and the equipment is tagged, the mine operator must establish and retain a log including the date of the equipment examination, name of person who examined the equipment, and any action taken as a result of the examination. The mine operator must retain the log for 1 year.

Section 57.5066(c) requires mine operators to ensure that miners who maintain diesel-powered equipment are qualified, by training or experience, to observe the maintenance standards of this section. The mine operator must retain a record of the training provided to the miner as evidence of the miner's competency for 1 year after the date of any maintenance. Mine operators must provide such records to the Secretary's authorized representative upon request.

Section 57.5070 requires mine operators to train all miners who can reasonably be expected to be exposed to diesel emissions on that property. Miners must receive training in accordance with section 57.5070(a)(1) through (a)(4). The mine operator must retain a record at the mine site of the training required by this section for 1 year after completion of the training.

Section 57.5071 requires mine operators to monitor a miner's full-shift personal exposure as often as necessary to effectively determine, under anticipated mining conditions, whether the miner's exposure exceeds the PEL specified in section 57.5060.

Additionally, mine operators must give prior notice to miners and their representatives of the dates and times the exposure monitoring will take place. (MSHA assumes that 45 percent of the time notification will occur orally, 35 percent of the time notification will be written, and 20 percent of the time notification will be posted.)

This section also requires that if a miner's exposure exceeds the PEL, mine operators must promptly post a notice of the corrective action being taken on the mine bulletin board. Mine operators must also post DPM sampling results including sampling results of the Secretary on the mine bulletin board within 15 days of receipt, and must maintain the sampling results on the board for 30 days. The mine operator must provide a copy of the results to the miners' representative at the mine. The mine operator must retain for 5 years from the date of sampling the results of any monitoring samples collected, as well as information about the sampling method used.

Section 57.5075

The recordkeeping requirements of the DPM standards contained in sections 57.5060 through 57.5071 are listed in a table entitled “Table 57.5075(A)--Diesel Particulate Matter Recordkeeping Requirements.” The table lists the records the operator must maintain pursuant to sections 57.5060, 57.5065, 57.5066, 57.5070, 57.5071, and the retention period for these records.

Paragraph (b)(3) requires mine operators to provide access for miners, former miners, or a personal representative of a miner to any record maintained pursuant to sections 57.5071 or 57.5060(d). Paragraph (b)(4) requires the transfer of all records required to be maintained under part 57 to any successor operator who must maintain the records for the required period.

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.

Underground MNM mines are confined spaces which, despite ventilation requirements, tend to accumulate significant concentrations of particles and gases – both those produced by the mine itself (e.g., methane gas and respirable dust) and those produced by equipment used in the mine (e.g., diesel particulate). It is widely recognized that respirable particles can create adverse health effects. This information collection is provided to MSHA inspectors and used by the Agency to monitor the mine operator’s compliance with the health standard. Miners and former miners use the information for similar purposes.

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.

No specific information technology has been identified that would reduce the burden. Section 57.5075(b)(1) does provide that any record required to be maintained at the mine site may be retained elsewhere, if the mine operator can immediately access the record by electronic transmission.

The mine operator must have a written record of the most recent medical evaluation to confirm that the miner was evaluated. Additionally, the mine operator must make certain that the PLHCP provides a copy of the determination to the miner. Though the section does not specify a timeframe in which the mine operator must have the PLHCP provide a copy of the medical evaluation to the miner, MSHA intends for the mine operator to exercise diligence in getting this important information to the miner by whatever method they choose. It has been MSHA’s longstanding practice to allow operators to keep records in hard copy as well as electronically, as long as the records are accessible.

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.

No similar or duplicate information exists.

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

This information collection does not have a significant impact on a substantial number of small entities. However, MSHA has made available various links on MSHA's website specific to diesel particulate matter exposure.

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.

MSHA would not be able to verify whether mine operators were complying with the DPM requirements. Such action is likely to result in exposing underground MNM miners to high concentrations of DPM.

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 secrets, 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.**

Under sections 57.5071(d)(2) and 57.5075, it is mandatory for mine operators to retain a copy of the results of any samples collected to measure DPM exposure and information about the sampling method used to obtain the samples for 5 years.

Under sections 57.5060(d)(8) and 57.5075, the mine operator must maintain a record of the identity of the PLHCP and the most recent written determination of each miner's ability to wear a respirator for the duration of the miner's employment plus 6 months.

8. If applicable, provide a copy and identify the date 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 December 10, 2021 (86 FR 70538). 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 does not provide payments or gifts to respondents.

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

Mine operators must ensure that the PLHCP administers the medical evaluation of a miner's ability to use a respirator in a manner that protects the miner's confidentiality. This record must be maintained by the mine operator and may reviewed by MSHA inspectors in the course of Agency business.

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 under Item 13.**

All information related to quantities and inspection rates are estimated by MSHA's Headquarters Enforcement Division based on field experience with different types of mining operations, sizes of mines, and the frequency of inspections dictated by statute. Mine operators provide MSHA Headquarters Enforcement Division the number of mines and employment, and from this information MSHA tracks the number of active and inactive mines and mine types throughout the United States.

Question 12 shows the annual burden hours and related costs in 2021 borne by affected: (1) underground MNM mine operators that use diesel-powered equipment, and (2) MNM miners. MSHA used data from the May 2020 Occupational Employment and Wage Statistics (OEWS) published by the Bureau of Labor Statistics (BLS) for hourly wage rates¹ and adjusted the rates for benefits² and wage inflation³.

¹ Options for obtaining OES data are available at item "E3. How to get OES data. What are the different ways to obtain OES estimates from this website?" at https://www.bls.gov/oes/oes_ques.htm.

² The benefit-scaler comes from BLS Employer Costs for Employee Compensation access by menu <http://www.bls.gov/data/> or directly with <http://download.bls.gov/pub/time.series/cm/cm.data.0.Current>. The data series CMU2030000405000P, Private Industry Total benefits for Construction, extraction, farming, fishing, and forestry occupations, is divided by 100 to convert to a decimal value. MSHA used the latest 4-quarter moving average 2020Qtr3-2021Qtr2 to determine that 32.9 percent of total loaded wages are benefits. MSHA computes the scaling factor with a number of detailed calculations but it may be approximated with the formula and values $1 + (\text{benefit percentage}/(1-\text{benefit percentage})) = 1 + (.329/(1-.329)) = 1.49$.

³ Wage inflation is the change in Series ID: CIS2020000405000I; Seasonally adjusted; Series Title: Wages and salaries for Private industry workers in Construction, extraction, farming, fishing, and forestry occupations, Index. (<https://data.bls.gov/cgi-bin/srgate>; Qtr 2 2021/Qtr 2 2020=1.037).

The affected mines are all underground MNM mines that utilize diesel-powered equipment that produces DPM. By mine size, the number of these mines and their employees (excluding office workers) are:

Mines and Miners

60 mines (size 1-19 employees)	employing	501	miners
127 mines (size 20-500 employees)	employing	11,687	miners
<u>7 mines</u> (size 501+ employees)	employing	<u>4,507</u>	<u>miners</u>
194 mines TOTAL	employing	16,695	miners

Section 57.5060(c) Special Extensions

Under section 57.5060(c), a mine operator needing additional time to comply with DPM PEL (160TC $\mu\text{g}/\text{m}^3$) due to technological or economic constraints, is allowed to file with the District Manager an application for a special extension of time in which to comply with DPM PEL. The provision does not restrict the number of times the mine operator may apply for a special extension, provided each extension is no longer than 1 year.

This paperwork requirement applies to a mine operator's application requesting a special extension of time in which to meet the final limit for an extension period of 1 year. MSHA estimates that there will be 0 applications made from mines, 0 burden hours, and \$0 burden hour cost under this provision.

Section 57.5060(d) – Miner Respirator Training and Miner Respirator Fit Testing by Mine Supervisor (Annual Burden Hours and Costs)

In instances where feasible engineering and administrative controls do not reduce the miner's exposure to the PEL under section 57.5060(d), mine operators must supplement feasible controls with adequate respiratory protection for overexposed miners and enroll the miners in a respiratory protection program meeting the minimum requirements of sections 57.5005(a) and (b) addressing air quality standards for MNM mines, and paragraphs (d)(1) through (d)(8) of section 57.5060 of the DPM standard.

As a result of miner turnover every year, a supervisor at an hourly rate⁴ of \$56.14 will need to provide one training session to train miners to use respirators. The training session is estimated to take 45 minutes, including time for the supervisor to note the training in the daily log or pass

⁴ Supervisor Wage is the employment weighted average for 4 Standard Occupational Classification Codes (SOC) for 4 separate occupational groups from the BLS May OES data for NAICS 212200 - Metal Ore Mining and NAICS 212300 - Nonmetallic Mineral Mining and Quarrying . Weighted average rate $\$56.14 = \$36.64 \times 1.49 \times 1.037$.

around a sign-up sheet to keep as proof of compliance. In any given year, MSHA estimates that 25 percent of mines using diesel-powered equipment will be required to train their employees on the use of respirators.

Section 57.5060(d) – Miner Respirator Fit Testing by Mine Supervisor Annual Burden Hours and Costs

As a result of miner turnover every year, 1 miner will be fit tested in mines with 1-19 employees, 3 miners will be fit tested in mines with 20-500 employees, and 20 miners will be fit tested in mines with 501 or more employees.

Section 57.5065 – Fueling Practices

This section requires that operators keep purchase records for 1 year showing compliance with the requirement that the sulfur content of diesel fuel used to power equipment underground is not exceeding 0.05 percent. Since the operator is merely retaining a receipt for a fuel purchase, this burden is considered de minimus.

Section 57.5066(b) – Miner Tag Diesel Equipment and Record Tag (Annual Burden Hours and Costs)

Each time there is an emission related problem on a diesel-powered machine, the equipment must be tagged and a record made of the tag. Due to the expertise of mine operators maintaining diesel engines and reliability of diesel emission pollution control, MSHA estimates that, on average in mines with fewer than 20 workers, 20 percent of diesel-powered equipment (287 machines) will be tagged. For larger mines, which generally have more extensive preventive maintenance programs, MSHA estimates that annually, on average, 10 percent of the diesel-powered equipment will be tagged. Therefore, the number of diesel machines to be tagged annually will be 610 machines in mines employing 20 to 500 workers, and 157 machines in mines employing more than 500 workers. MSHA estimates it will take 2 minutes to tag the machine and another 2 minutes to record the tagging, for a total of 4 minutes.⁵

Section 57.5066(b) – Examine Tagged Diesel Equipment and Record Examination (Annual Burden Hours and Costs)

For each diesel machine that has been tagged, an examination must be conducted concerning the tagged equipment and a record must be made of the examination. As noted, the number of

⁵ This work will be done by a general miner whose wage is the employment weighted average for 12 Standard Occupational Classification Codes (SOC) for 4 separate occupational groups from the BLS May OES data for NAICS 212200 - Metal Ore Mining and NAICS 212300 - Nonmetallic Mineral Mining and Quarrying . Weighted average rate \$30.83 = \$ 19.95 x 1.49 x 1.037.

machines to be tagged annually will be: 287 machines in mines employing fewer than 20 workers, 610 machines in mines employing 20 to 500 workers, and 157 machines in mines employing more than 500 workers. For each piece of equipment tagged, MSHA estimates that it will take 10 minutes to examine the machine and another 2 minutes to record the examination, for a total of 12 minutes.⁶

Section 57.5066(c) – Create and Maintain Records for Competent Maintenance Personnel (Annual Burden Hours and Costs)

Appropriate repairs must be made to each diesel machine that has been tagged to bring the machine into compliance. The person performing these repairs must be competent to make them. Mine operators are required to maintain documentation verifying this competence for 1 year. MSHA estimates that 1 competent mechanic will repair diesel machinery at mines employing fewer than 20 workers, 2 mechanics will repair equipment at mines employing 20 to 500 workers, and 5 mechanics will repair equipment at mines employing more than 500 workers. To create and maintain documentation verifying each mechanic's competence, MSHA estimates that it will take 30 minutes by a supervisor to review personnel records and 10 minutes to either record the examination or copy pertinent records, for a total of 40 minutes.

Section 57.5070 – Mine Supervisor Briefing Clerical Worker Regarding Health Training (Annual Burden Hours and Costs)

All miners at a mine who can reasonably be expected to be exposed to diesel emission on mine property must receive health training in accordance with sections 57.5070(a)(1) through (a)(4). For each mine, MSHA estimates that it will take a mine supervisor 5 minutes (0.083 hours) to brief a clerical worker concerning such training. The number of mines affected by this provision will be: 60 mines employing fewer than 20 workers, 127 mines employing 20 to 500 workers, and 7 mines employing more than 500 workers.

Section 57.5070 – Mine Supervisor Perform Health Training Sessions (Annual Burden Hours and Costs)

Concerning miner health training, supervisors will conduct training sessions that average 28 minutes. The average number of training sessions to be held by a mine is determined based on the assumption that no more than 34 miners can be trained in any one session.

Section 57.5070 – Clerical Worker Prepare Registration Sheet for Health Training Sessions (Annual Burden Hours and Costs)

⁶ This work will be done by a mechanic whose wage is the employment weighted average for 5 Standard Occupational Classification Codes (SOC) for 4 separate occupational groups from the BLS May OES data for NAICS 212200 - Metal Ore Mining and NAICS 212300 - Nonmetallic Mineral Mining and Quarrying . Weighted average rate \$40.81 = \$26.41 x 1.49 x 1.037.

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

For each mine, a clerical worker⁷ will need 10 minutes to prepare the registration sheet for the health training attendees to sign at each training session.

Section 57.5070 – Miners Sign Health Training Attendance Sheet (Annual Burden Hours and Costs)

Each miner attending a health training session will be required to sign the registration sheet prepared by the clerical worker. Each signature will require 20 seconds of a miner's time.

Section 57.5071 – Mine Supervisor Oral Notification of Sampling (Annual Burden Hours and Costs)

Section 57.5071 requires that mine operators monitor a miner's exposure to DPM as often as necessary to determine whether the miner's exposure exceeds the DPM PEL. MSHA estimates mine operators will sample four times a year to determine miners' exposures. Additionally, mine operators must provide prior notification to miners and their representatives of the dates and times the sampling will take place. MSHA assumes that 45 percent of mines will notify miners orally. This action will require 2 minutes of a mine supervisor's time.

Section 57.5071 – Written Notification of Sampling (Annual Burden Hours and Costs)

MSHA assumes that 35 percent of mines will notify miners and their representatives in writing. This will require 5 minutes of a mine supervisor's time to brief a clerical worker.

The clerical worker will prepare copy and deliver the written notice to each miner. This activity will take 5 minutes for each miner.

Section 57.5071 – Posted Notification of Sampling (Annual Burden Hours and Costs)

MSHA assumes that 20 percent of mines will use a posted notice to inform miners of the dates and times that they intend to conduct sampling. This will require 5 minutes (0.083 hours) of a supervisor's time to brief a clerical worker. It will take the clerical worker 5 minutes to be briefed by the supervisor and 15 minutes to prepare and post the notice, for a total of 20 minutes (0.333 hours).

Section 57.5071 Mine Supervisor Prepares and Posts Notice of Corrective Action (Annual Burden Hours and Costs)

⁷ Clerical Worker Wage is the employment weighted average for 5 Standard Occupational Classification Codes (SOC) for 4 separate occupational groups from the BLS May OES data for NAICS 212200 - Metal Ore Mining and NAICS 212300 - Nonmetallic Mineral Mining and Quarrying . Weighted average rate \$31.44 = \$ 20.35 x 1.49 x 1.037.

This section requires mine supervisors to prepare and post a notice of the corrective action taken to reduce the miner's exposure to or below the PEL. This will take 15 minutes of the mine supervisor's time. MSHA assumes that 10 percent of mines with fewer than 500 workers and 20 percent of larger mines will require corrective action.

Section 57.5071 - Diesel Particulate Sampling by MNM Mines (Annual Burden Hours and Costs)

MSHA conducts its compliance sampling of miners' exposures to DPM at MNM underground mines. All mine operators must conduct their own sampling as necessary to effectively determine if a miners' exposure exceeds the DPM PEL, based on conditions occurring at the mine. MSHA projects that sampling will be necessary four times per year. Each time sampling occurs, there will be two areas sampled per mine and in each area, three samples will be taken. It will take a supervisor 60 minutes to set up the performance of one sample.

For both operator and contract sampling, once sampling results are received, MSHA estimates that it will take a clerical worker 10 minutes to make two copies of a one-page notice and to post one and deliver the other to the miners' representative.

Section 57.5075 Clerical Workers Respond to Requests for Health Records by Miners (Annual Burden Hours and Costs)

MSHA assumes that some miners leaving their jobs at the mine or former miners would request a copy of the health records generated by the DPM requirements. These records would consist of copies of the exposure measurements that MNM mine operators are required to maintain. MSHA estimates that 10 percent of miners will request health records each year. It will take a clerical worker 5 minutes to respond to each request.

Section 57.5075 - Clerical Workers Respond to Requests for Health Records by Dept. of Health and Human Services (DHHS) (Annual Burden Hours and Costs)

Upon request from an authorized representative of the U.S. Department of Health and Human Services (DHHS), underground MNM mine operators must provide access to health records. To date, MSHA has received no such requests from DHHS.

30 CFR Sections 57.5060(d)(3), (d)(4) and (d)(8)

Mine operators must provide medical record information to the PLHCP so the PLHCP may perform an evaluation for the respiratory protection program. This takes a mine supervisor 1 hour to provide the information. In any given year, MSHA estimates that 25 percent of mines in each size category will use respirators and 25 percent of these mines will provide this information.

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

The miner must take the time to have the evaluation performed by the PLHCP concerning the respiratory protection program. This takes 2 hours and 40 minutes of the miner’s time

If miners disagree with the PLHCP determination, they can provide additional evidence to the PLHCP. MSHA estimates that a certain minimum number of miners evaluated will disagree with the PLHCP evaluation and need to spend some time providing a response to the PLHCP. MSHA estimates that each affected miner will provide a response in writing once per year and that it takes 2 hours and 40 minutes of the miner’s time.

The mine operator must maintain a record of the identity of the PLHCP and the most recent written determination of each miner’s ability to wear a respirator for the duration of the miner’s employment plus 6 months. MSHA estimates that it takes a clerical worker 3 minutes (0.05 hours) to maintain a record for each affected miner.

If the PLHCP determines that the miner cannot wear a negative pressure respirator, the mine operator must make certain that the PLHCP evaluates the miner’s ability to wear a powered air-purifying respirator (PAPR). MSHA estimates that 10 percent of miners will need to be evaluated.

Additional information would have to be maintained in the record by a clerical worker for those miners that require additional evaluation. MSHA estimates that it would take 3 minutes (0.05 hours) to record the additional information.

Summary of Burden Hours and Responses for Item 12

Activity/Regulation	No. of Respondents	No. of responses per Respondent	Total Responses	Avg. Burden per Response (in hours)	Burden Hours	Avg. Hourly Wage Rate	Monetized Value of Time
57.5060(d) Respirator Training	49	1	49	45 min (0.75 h)	36.75	\$56.14	\$2,063.15
57.5060(d) Fit Testing	49	151/49	151	15 min (0.25 h)	37.75	\$56.14	\$2,119.29
57.5066(b) Tag & Record	194	1,054/194	1,054	4 min (0.07 h)	73.78	\$30.83	\$2,274.64
57.5066(b) Examine Tags	194	1,054/194	1,054	12 min (0.20 h)	210.80	\$40.81	\$8,602.75
57.5066(c) Create	194	349/194	349	40 min (0.67 h)	233.83	\$40.81	\$9,542.60

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

Activity/Regulation	No. of Respondents	No. of responses per Respondent	Total Responses	Avg. Burden per Response (in hours)	Burden Hours	Avg. Hourly Wage Rate	Monetized Value of Time
and Maintain Records							
57.5070 Supervisory or Briefing	194	1	194	5 min (0.08 h)	15.52	\$56.14	\$871.29
57.5070 Clerical Worker Briefing	194	1	194	5 min (0.08 h)	15.52	\$31.44	\$487.95
57.5070 Supervisory or Perform Training	194	603/194	603	28 min (0.47 h)	283.41	\$56.14	\$15,910.64
57.5070 Clerical Prepare Form	194	603/194	603	10 min (0.17 h)	102.51	\$31.44	\$3,222.91
57.5070 Sign Attendance Sheet	194	16,695/194	16,695	20 sec (0.01h)	166.95	\$30.83	\$5,147.07
57.5071 Oral Notification of Sampling	87	4	348	2 min (0.03 h)	10.44	\$56.14	\$586.10
57.5071 Supervisory or Briefs to Clerical - Written	68	4	272	5 min (0.08 h)	21.76	\$56.14	\$1,221.61
57.5071 Clerical - Written Notification	5,843	4	23,372	5 min (0.08 h)	1,869.76	\$31.44	\$58,785.25
57.5071 Supervisory or Briefs Clerical - Prepare	39	4	156	5 min (0.08 h)	12.48	\$56.14	\$700.63

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

Activity/Regulation	No. of Respondents	No. of responses per Respondent	Total Responses	Avg. Burden per Response (in hours)	Burden Hours	Avg. Hourly Wage Rate	Monetized Value of Time
& Post							
57.5071 Posted Notification of Sampling, Clerical	39	4	156	20 min (0.33h)	51.48	\$31.44	\$1,618.53
57.5071 Supervisor Prepares and Posts Notice	32	1	32	15 min (0.25 h)	8.00	\$56.14	\$449.12
57.5071 Sampling by Operators	194	4,656/194	4,656	1 h	4,656.00	\$56.14	\$261,387.84
57.5071 Clerical - Copy & Distribute	194	4	776	10 min (0.17 h)	131.92	\$31.44	\$4,147.56
57.5075 Clerical Respond to Miner Requests	194	1,670/194	1,670	5 min (.08 h)	133.60	\$31.44	\$4,200.38
57.5060(d) (3)(4) (8) Supervisor Provide Material	12	1	12	1 h	12.00	\$31.44	\$377.28
57.5060(d) (3)(4) (8) Miner Medical Evaluation	12	1,044/12	1,044	2 h & 40 min (2.67 h)	2,787.48	\$30.83	\$85,938.01
57.5060(d) (3)(4) (8) Miner Response	4	1	4	2 h & 40 min (2.67 h)	10.68	\$30.83	\$329.26

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

Activity/Regulation	No. of Respondents	No. of responses per Respondent	Total Responses	Avg. Burden per Response (in hours)	Burden Hours	Avg. Hourly Wage Rate	Monetized Value of Time
57.5060(d) (8) Maintain Record	12	1,044/12	1,044	3 min (0.05 h)	52.20	\$31.44	\$1,641.17
57.5060(d) (3) Ability to Wear PAPR	12	104/12	104	2 h & 40 min (2.67 h)	277.68	\$30.83	\$8,560.87
57.5060(d) (8) Record Information	12	104/12	104	3 min (0.05 h)	5.20	\$31.44	\$163.49
TOTAL	194		54,696		11,218 (rounded)		\$480,349 (rounded)

13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected in 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 collections 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.

Section 57.5060(d) - Cost to Purchase and Maintain Respirators

Twenty-five percent of mines will have respiratory protection programs to supplement reduced exposures. Annually, mines employing fewer than 20 workers will purchase 2 new respirators, mines employing 20-500 workers will purchase 6 new respirators, and mines employing 501 or more workers will purchase 8 new respirators. The cost of a respirator is \$40. Each week the respirator uses one filter costing \$10. It is estimated that respirators will have to be replaced each year. The annual cost of a respirator and maintenance is \$560 (\$40 purchase + 52 weeks x \$10 per filter cartridge per week). The estimates below are for replacement respirators for the initially affected miners and for newly hired employees.

The annual costs to purchase respirators and filters will be as follows:

Respirators

15 mines (1-19 employees) x 2 respirators	= 30 respirators
32 mines (20-500 employees) x 6 respirators	= 192 respirators
2 mines (501+ employees) x 8 respirators	= <u>16 respirators</u>
TOTAL	238 respirators

Annual Cost

238 respirators x \$560.00 per respirator	= \$133,280.00
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Section 57.5071 - Annual Costs of Sampling for Those Mines That Contract Out Their Sampling Responsibilities

MSHA initially estimated that mines would contract out their DPM sampling responsibilities. However, MSHA is not aware of any mine doing so. MSHA has not included any costs for this provision.

Section 57.5071 - Equipment Costs for Those Mines that Perform Their Own Sampling

Mines performing their own DPM sampling pay \$33 to have each sample analyzed, plus \$20 for a disposable cassette, for a total of \$53 per sample. Annually, mines employing fewer than 20 workers will have 12 samples analyzed, while mines employing 20 or more workers will have 24 samples analyzed. The annual costs related to analyzing DPM samples for operators that conduct their own sampling will be as follows:

Samples

60 mines (1-19 employees)	x 12 samples	= 720 samples
127 mines (20-500 employees)	x 24 samples	= 3,048 samples
7 mines (501+ employees)	x 24 samples	= <u>168 samples</u>
TOTAL		3,936 samples

Annual Cost

3,936 samples x \$53.00 per sample = \$208,608.00

Section 57.5075 - Annual Costs for Miners Requests of Health Records

Miners and former miners can request health records. The annual number of requests is estimated as 10 percent of miners. Each request is estimated to be 4 pages in length, photocopy costs are \$0.15 per page, and postage is \$0.45, for a total of \$1.05 per request. Annual costs for miners related to requesting health records will be as follows:

Miners Requesting Health Records

16,695 miners x 10% = 1,670 requests

Annual Cost

1,670 requests x \$1.05 per request = \$1,753.50

The Department of Health and Human Services (DHHS) can request health records. To date, MSHA has received no such requests from DHHS so no costs have been included.

Section 57.5060(d)(3) – Cost of Medical Evaluations

There are two medical evaluations indicated in section 57.5060(d)(3). The simpler medical evaluation by the PLHCP is required of all miners who must wear respirators. The simpler evaluation costs \$50. The more complex medical evaluation is required only of those miners who cannot wear a negative pressure respirator. The more complex medical evaluation determines whether the miner can wear a powered air purifying respirator (PAPR). The more complex evaluation is required of only 10 percent of the miners and costs \$250 additional. On a per-miner basis, the medical evaluations cost, on average, \$75 per miner. This is calculated as $\$50 + 10\% \times \$250 = \$75$.

For the current 160_{TC} DPM PEL, mine operators must obtain medical evaluations from the PLHCP for each additional miner who must use a respirator.

Medical Evaluations

1,044 evaluations

Annual Third Party Cost

1,044 evaluations x \$75 per evaluation = \$78,300.00

Summary of Burden Cost for Question 13

Regulation Provision	Cost
57.5060(d) Purchase and Maintain Respirators	\$133,280.00
57.5071 Analyze Samples	\$208,608

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

	.00
57.5075 Miner Request of Health Record	\$1,753.5 0
57.5060(d)(3) Medical Evaluations	\$78,300. 00
Rounded Total Burden Cost	\$421,94 2

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.

At least once a year, MSHA inspectors will take miners’ personal samples to measure their exposure to DPM in MNM underground mines that use diesel-powered equipment. As of March 2018, the average grade and salary of an MSHA mine inspector taking samples is GS 12 earning \$132,187 per annum or \$63.34 per hour including benefits.⁸ On average, the time to record sample and inspection information per miner for the full shift in one working area will be 3 hours. Fifty-two mines employing fewer than 20 workers are estimated to have, on average, 1 working area, while 143 mines employing 20 or more workers are estimated to have, on average, 2 working areas. The annual costs to take samples will be as follows:

Working Areas

60 mines (1-19 employees) x 1 working area	= 60 working areas
127 mines (20-500 employees) x 2 working areas	= 254 working areas
7 mines (501+ employees) x 2 working areas	= <u>14 working areas</u>
TOTAL	328 working areas

Sampling Hours

328 working areas x 3 hours	= 984 hours
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Annual Cost

984 hours x \$63.34 per hour	= \$ 62,326.56
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Samples

328 working areas x 5 samples each	= 1,640 samples
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⁸ The wage rates shown come from the Office of Personnel Management (OPM) June 2021 FedScope data cube, <http://www.fedscope.opm.gov/>. Average salary was obtained for the appropriate grade and occupation for DOL-MSHA employees. In order to include the cost of benefits, this annual average salary was multiplied by a benefits scaler of 1.435 computed from MSHA’s 2022 budget submission. The final hourly wage rate was derived by dividing the adjusted annual average salary by 2,087 hours (hourly rate = FedScope Salary x 1.435 ÷ 2,087); \$92,116 x 1.435 ÷ 2,087 = \$63.34.

Health Standards for Diesel Particulate Matter Exposure

OMB Control Number: 1219-0135

OMB Expiration Date: 6/30/2022

Annual Cost

1,640 samples x \$35.00 per sample = \$57,400

It takes an MSHA chemist 65 minutes to analyze a sample and upload the results to MSHA's database. As of March 2018, the average grade and salary of an MSHA chemist analyzing samples is GS 13, at \$160,238 per annum or \$76.80 per hour including benefits.⁹ MSHA analyzes 4 out of 5 collected samples, the remainder being blanks or control samples.

Samples

328 working areas x 4 samples each = 1,312 samples

Sampling Hours

1,312 samples x 65 minutes = 1,412 hours

Annual Cost

1,412 hours x \$76.80 per hour = \$ 109,133

Summary of Q. 14 Costs

\$62,326.56
\$57,400
\$109,133
\$228,860 (rounded)

15. Explain the reasons for any program changes or adjustments.

The number of respondents remained virtually unchanged. While the number of mines decreased by 1, the number of miners increased by 24, thus causing an increase in the number of responses. The increase in the number of hours was due in large part to an increase from 40 minutes to 60 minutes in the estimate of time in section 57.5071 to set up and perform a diesel particulate sample. Costs decreased due to a decrease in the number of working areas.

Respondents decreased from 195 to 194.

Responses increased from 54,175 to 54,696.

Hours increased from 9,661 to 11,218.

Costs from decreased from \$431,508 to \$421,942.

⁹ The wage rates shown here come from the Office of Personnel Management (OPM) June 2021 FedScope data cube, <http://www.fedscope.opm.gov/>. Average salary was obtained for the appropriate grade and occupation for DOL-MSHA employees. In order to include the cost of benefits, this annual average salary was multiplied by a benefits scaler of 1.435 computed from MSHA's 2022 budget submission. The final hourly wage rate was derived by dividing the adjusted annual average salary by 2,087 hours (hourly rate = FedScope Salary x 1.435 ÷ 2,087); \$111,696 x 1.435 ÷ 2,087 = \$76.80.

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.

The results of the MSHA analyzed samples are available to the public on the MSHA Internet site, www.MSHA.gov under the “[Data Retrieval System](#)” link.

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 has no forms associated with this collection of information on which to display an expiration date.

18. Explain each exception to the topics of the certification statement.

There are no certification exceptions identified with this information collection.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

This information collection does not employ statistical methods.