Supporting Statement for Paperwork Reduction Act Submissions

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 authorizes the 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.

Diesel particulate matter (DPM) is a carcinogen that consists of tiny particles present in diesel engine exhaust that can readily penetrate into the deepest recesses of 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 significantly greater risk than other workers of developing such diseases as lung cancer, heart failure, serious allergic responses and other cardiopulmonary problems.

The DPM regulation 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 sections 57.5060, 57.5065, 57.5066, 57.5070, 57.5071, and 57.5075.

30 CFR Section 57.5060(c)

Under this section, if a mine has technological or economic constraints in meeting the final DPM PEL contained in section 57.5060(b)(3) that became effective on May 20, 2008, the mine operator may file an application with the District Manager for a special extension of time in which to comply with the PEL. The application criteria are specified in the standard and require the mine operator to certify on the application that the operator has posted a copy of the application at the mine site for at least 30 days before the date of the application, and has provided a copy of the application to the representative of miners. In addition, the mine operator must include the following information:

1. Documentation supporting that controls are technologically or economically infeasible at this time to reduce the miner's exposure to the final DPM limit; 2. The most recent DPM monitoring results; and 3. The actions the operator will take during the extension to minimize exposure of miners to DPM. Upon approval, the mine operator must comply with the terms of any approved application, post a copy of the approved application at the mine site for the duration of the special extension period of one year, and provide a copy of the approved application to the miners' representative.

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

Under these provisions, 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 rule provides 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, the rule 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 that the mine operator 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 miner's medical evaluations. Mine operators must make certain 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 metal and nonmetal mines at section 57.5005(a),(b) and with requirements in the DPM standard under paragraphs (d)(1) and (d)(2) addressing appropriate DPM filters for air-purifying respirators. On the other hand, 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 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 the mine operator to obtain a written determination from the PLHCP regarding the miner's ability to wear a respirator. The mine operator must make certain that the PLHCP provides a copy of the determination to the miner.

Section 57.5060(d)(6) requires the mine operator to reevaluate the miner when the operator has reason to believe that conditions have changed. Such conditions 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 that is hotter and imposes greater physiological stress.

Section 57.5060(d)(7) requires upon written notification that the PLHCP has determined that the miner is unable to wear a respirator (including a PAPR), 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. As a result, 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.

Under **section 57.5060(d)(8),** 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 six months thereafter.

30 CFR Section 57.5065(a)

This section requires mine operators to retain for one year purchase records showing compliance with the requirement that the sulfur content of diesel fuel used to power equipment underground is not exceeding 0.05 percent.

30 CFR Section 57.5066(b)

This section requires that operators tag diesel-powered equipment at any time the miner notes evidence that the equipment may require maintenance to comply with the maintenance requirements. Each time there is an emission-related problem on a diesel-powered piece of 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 a period of one year.

30 CFR Section 57.5066(c)

Under this section, the mine operator is required to take various steps to assure that the miner has taken the training concerning the maintenance of diesel powered equipment. The mine operator must retain a record of the training provided the miner as evidence of the miner's competency for one year after the date of any maintenance, and the mine operator must present such record to the Secretary's representative.

30 CFR Section 57.5070

Under this section, mine operators must train all miners who can reasonably be expected to be exposed to diesel emissions on that property. Miners must receive annual health training in accordance with section 57.5070(a)(1) through (a)(4). The mine operator must retain a record of training for one year after completion.

30 CFR Section 57.5071

This section requires that mine operators 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. Additionally, mine operators must give prior notice to miners and their representatives of the dates and times the sampling 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 on the mine bulletin board of corrective action being taken. Mine operators must also post on the mine bulletin board within 15 days of receipt, and remain on the board for 30 days DPM sampling results, including sampling results of the Secretary. The mine operator must provide a copy to the miners' representative at the mine. The mine operator must retain for five years from the date of sampling the results of any monitoring samples collected, as well as information about the sampling method used.

30 CFR 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 through 57.5071, and the retention period for these records. Paragraph (b)(3) providers for miners and former miners to have access to any record maintained pursuant to §§ 57.5071 or 57.5060(d); and paragraph (b)(4) providers for the transfer of all records required to maintained under part 57 to any successor operator, who must maintain them for the required period.

30 CFR Section 57.5075(b)

This section requires that operators keep for one year purchase records showing compliance with the requirement that the sulfur content of diesel fuel used to power equipment underground is not exceeding 0.05 percent.

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 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 the MSHA inspector 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 generally reduce the burden. The regulatory provision at 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 submission.

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 rule does not specify a timeframe in which the mine operator must have the PLHCP provide a copy to the miner of his or her medical determination, 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 <u>web-site specific to</u> <u>Diesel matters</u>.

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 major portions of the DPM rule. Such action is likely to result in exposing underground metal and nonmetal 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 five 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 six months thereafter.

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 June 4, 2015 (80 FR 31924). MSHA received no 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 make certain that the PLHCP administers the medical evaluation of a miner's ability to use a respirator in a manner that protects the confidentiality of the miner being evaluated. This record must be maintained by the mine operator and reviewed by MSHA inspectors in the course of official 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 such 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.

Question 12 shows the burden hours and related costs that are borne by affected: (1) underground MNM mine operators that use diesel-powered equipment, and (2) MNM miners.

Details Concerning Paperwork Burden Hours and Related Costs –Throughout this document the following metal and nonmetal underground hourly wage rates for 2014 are used¹:

Hourly Wage Rates \$76.70 for a mine supervisor; \$34.21 for a miner; \$32.74 for a clerical worker; and \$37.30 for a mine mechanic.

 $^{^1}$ The wage rates (including benefits) were developed from tabulations in the U.S. Coal Mines Salaries, Wages, and Benefits - 2012 Survey Results, InfoMine USA, Inc., 2012. The wage rates were adjusted from 2012 to 2014 using a percent change of 3.8%, derived from the Bureau of Labor Statistics' Employment Cost Index (ECI), CIU2010000405000I, for "Private industry workers in Construction, extraction, farming, fishing, and forestry occupations," http://www.bls.gov/ect/ and http://data.bls.gov/timeseries/CIU2010000405000I (hourly rate = base rate from x 1.038); \$73.89 x 1.038 = \$76.70, \$32.96 x1.038 = \$34.21; \$31.54 x 1.038 = \$32.74; \$35.93 x 1.038 = \$37.30.

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

Mines and Miners

194 mines TOTAL	employing	11,780 miners
6 mines (size 501+ employees)	employing	<u>2,700 miners</u>
122 mines (size 20-500 employees)	employing	8,500 miners
66 mines (size 1-19 employees)	employing	580 miners

Section 57.5060(c) Special Extensions

Under section 57.5060(c), a mine operator needing additional time to comply with DPM PEL (160TC μ g/m³, effective May 20, 2008) 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 one 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 one 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) & (b) addressing air quality standards for metal and nonmetal mines, and paragraphs (d)(1) through (d) (8) of section 57.5060 of the DPM standard.

Every year, as a result of employment turnover, a supervisor will need to provide one training session to train miners to use respirators. The training session is estimated to take 45 minutes (0.75 hours), including time for the supervisor to note the training in his daily log or pass 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. The annual burden hours and costs related to the supervisor's respirator training are:

Responses

66 mines (1-19 employees) x 25% = 17 training sessions
122 mines (20-500 employees) x 25% = 31 training sessions
6 mines (501+ employees) x 25% = 2 training sessions

TOTAL 50 training sessions

Burden Hours

50 training sessions x 0.75 hours = 38 hours

Burden Hour Cost

38 hours x \$76.70 per hour = \$2,915

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 10 miners will be fit tested in mines with 501 or more employees. The annual burden hours and costs related to fit testing are:

Responses

17 mines (1-19 employees) x 1 fit testing = 17 fit testings
31 mines (20-500 employees) x 3 fit testings = 93 fit testings
2 mines (501+ employees) x 10 fit testings = 20 fit testings

TOTAL 130 fit testings

Burden Hours

130 fit testings x 0.25 hours = 33 hours

Burden Hour Cost

33 hours x \$76.70 per hour = \$2,531

Section 57.5065 – Fueling Practices

This section requires that operators keep purchase records for one 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 increased expertise of mine operators maintaining diesel engines and improved reliability of diesel emission pollution control-annually MSHA estimates that, on average, in mines with fewer than 20 workers, 20 percent of diesel powered equipment (316 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 560 machines in mines employing 20 to 500 workers, and 134 machines in mines employing more than 500 workers. MSHA estimate it to take 2 minutes to tag the machine and another 2 minutes to record the tagging, for a total of 4 minutes (0.067 hours).

The annual burden hours to tag diesel powered equipment concerning emission related problems are:

<u>Responses</u>

 316 machines (1-19 employees)
 = 316 tags

 560 machines (20-500 employees)
 = 560 tags

 134 machines (501+ employees)
 = 134 tags

 TOTAL
 1,010 tags

Burden Hours

1,010 tags x 0.067 hours = 68 hours

Burden Hour Cost

68 hours x \$34.21 per hour = \$2,326

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 earlier, the number of machines to be tagged annually will be: 316 machines in mines employing fewer than 20 workers, 560 machines in mines employing 20 to 500 workers, and 134 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 (0.2 hours). The annual burden hours and costs to examine tagged equipment and record the examination are:

Responses

1,010 machines = 1,010 tags

Burden Hours

1,010 tags x 0.2 hours = 202 hours

Burden Hour Cost

202 hours x \$37.30 per hour = \$7,535

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 one year. MSHA estimates that 2 competent mechanics will repair diesel machinery at mines employing fewer than 20 workers, 10 mechanics will repair equipment at mines employing 20 to 500 workers, and 17 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 (0.667 hours). The annual burden hours and costs to create and maintain records for competent persons conducting repairs on diesel equipment are:

Responses

TOTAL	340 records
6 mines (501+ employees) x 5 mechanics	= <u>30 records</u>
122 mines (20-500 employees) x 2 mechanics	= 244 records
66 mines (1-19 employees) x 1 mechanic	= 66 records

Burden Hours

340 records x 0.667 hours = 227 hours

Burden Hour Cost

227 hours x \$37.30 per hour = \$8,467

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: 66 mines employing fewer than 20 workers, 122 mines employing 20 to 500 workers, and 6 mines employing more than 500 workers. The annual burden hours and costs for a supervisor to brief a clerical worker concerning miner health training are:

Responses

194 mines x 1	briefing	= 194 briefings

Burden Hours

TOTAL	32 hours
194 briefings x 0.083 hours (clerical worker)	= <u>16 hours</u>
194 briefings x 0.083 hours (supervisor)	= 16 hours

Burden Hour Cost

16 hours x \$76.70 per hour (supervisor)	= \$1,227
16 hours x \$32.74 per hour (clerical worker)	= <u>\$ 524</u>
TOTAL	\$1,751

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

Concerning miner health training, supervisors will conduct a 15 minute (0.25 hours) training session in mines employing fewer than 20 workers, and a 30 minute (0.5 hours) training session

in mines employing 20 or more workers. The average number of training sessions to be held by a mine, in each mine size category, is determined based on the assumption that no more than 34 miners can be trained in any one session. MSHA assumes that 5 percent of mine employees are office workers who do not require training. For mines with less than 20 employees, the number of training sessions equals the number of mines. For mines with 20 or more employees, the number of training sessions is estimated as the number of mines times 17 plus the number of miners, all divided by 34 and rounded to the nearest whole number. The annual burden hours and costs for supervisors to give miner health training are:

Responses

(6 mines x 17 + 2,700 miners) / 34 (501+ employees) TOTAL	= 82 training sessions 459 training sessions
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(122 mines x 17 + 8,500 miners) / 34 (20-500 employees)	= 311 training sessions
(66 mines x 1) (1-19 employees)	= 66 training sessions

Burden Hours

TOTAL	214 hours
82 training sessions $x = 0.50$ hours	= <u>41 hours</u>
311 training sessions x 0.50 hours	= 156 hours
66 training sessions x 0.25 hours	= 17 hours

Burden Hour Cost

214 hours x \$76.70 per hour = \$16,414

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

For each mine, the clerical worker will need 10 minutes (0.167 hours) to prepare the registration sheet for the health training attendees to sign at each training session. The annual burden hours and costs for clerical workers to prepare registration sheets for health training sessions are:

Responses	459 training sessions

Burden Hours

459 training sessions x 0.167 hours = 77 hours

Burden Hour Cost

77 hours x \$32.74 per hour = \$2,521

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. The annual burden hours and costs resulting from this provision are:

Responses

 580 miners (1-19 employees)
 = 580 signatures

 8,500 miners (20-500 employees)
 = 8,500 signatures

 2,700 miners (501+ employees)
 = 2,700 signatures

 TOTAL
 11,780 signatures

Burden Hours

 $11,780 \text{ signatures } \times 0.006 \text{ hours}$ = 71 hours

Burden Hour Cost

71 hours x \$34.21 per hour = \$2,429

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. The annual burden hours and costs of oral notification are:

Responses

87 mines (194 x 45%) x 4 oral notifications = 348 oral notifications

Burden Hours

348 oral notifications x 0.033 hours = 11 hours

Burden Hour Cost

11 hours x \$76.70 per hour = \$844

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 five minutes of a mine supervisor's time to brief a clerical worker. The annual burden hours and costs are:

Responses

68 mines (194 x 35%) x 4 briefings = 272 briefings

Burden Hours

272 briefings x 0.083 hours = 23 hours

Burden Hour Cost

23 hours x \$76.70 per hour = \$1,764

The clerical worker will prepare copy and deliver the written notice to each miner. This activity will take five minutes for each miner. The annual burden hours and costs associated with these actions are:

Responses

4,123 miners (11,780 x 35%) x 4 written notices = 16,492 deliveries

Burden Hours

16,492 deliveries x 0.083 hours = 1,369 hours

Burden Hour Cost

1,369 hours x \$32.74 per hour = \$44,821

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 five minutes (0.083 hours) of a supervisor's time to brief a clerical worker. It will take the clerical worker five minutes to be briefed by the supervisor and fifteen minutes to prepare and post the notice, for a total of twenty minutes (0.333 hours). The annual burden hours and costs for the posted notice are:

Responses

39 mines (194 x 20%) x 4 posted notices = 156 posted notices

Burden Hours

156 posted notices x 0.083 hours (supervisor) = 13 hours 156 posted notices x 0.333 hours (clerical worker) = 52 hours **TOTAL 65 hours**

Burden Hour Cost

13 hours x \$76.70 per hour (supervisor) = \$ 997 52 hours x \$32.74 per hour (clerical worker) = $\frac{$1,702}{$2,699}$

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

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 20 percent of mines with fewer than 20 workers and 40 percent of larger mines will require corrective action. The annual burden hours and costs are:

Responses

13 mines $(66 \times 20\%)$ = 13 posted notices49 mines $(122 \times 40\%)$ = 49 posted notices2 mines $(6 \times 40\%)$ = 2 posted notices

TOTAL 64 posted notices

Burden Hours

64 posted notices x 0.25 hours = 16 hours

Burden Hour Cost

16 hours x \$76.70 per hour = \$1,227

Section 57.5071 - Diesel Particulate Sampling by M/NM Mines (Annual Burden Hours and Costs)

MSHA conducts its compliance sampling of miners' exposures to DPM at metal and nonmetal underground mines. All mine operators must conduct their own sampling as necessary to effectively determine if a miner's exposure exceeds the DPM PEL, based on conditions occurring at the mine. MSHA projects that sampling will be necessary 4 times per year. Each time sampling occurs, there will be 2 areas sampled per mine and in each area, 3 samples will be taken. It will take a supervisor 40 minutes (0.667 hrs) to perform one sample. The burden hours and related costs for operators that perform their own sampling are:

Responses

194 mines x 4 times x 2 areas x 3 samples = 4,656 samples

Burden Hours

 $4,656 \text{ samples } \times 0.667 \text{ hours}$ = 3,106 hours

Burden Hour Cost

 $3,106 \text{ hours } \times \76.70 per hour = \$238,230

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 miner's representative. These annual burden hours and costs are:

Responses

194 mines x 4 times = 776 notices

Burden Hours

776 notices x 0.167 hours = 130 hours

Burden Hour Cost

130 hours x \$32.74 per hour = \$4,256

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 requirements of this rule. These records would

consist of copies of the exposure measurements that M/NM 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 five minutes to respond to each request. The annual burden hours and costs resulting from requests for health records are:

Responses

11,780 miners x 10% = 1,178 requests

Burden Hours

1,178 requests x 0.083 hours = 98 hours

Burden Hour Cost

98 hours x \$32.74 per hour = \$3,209

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. Initially, MSHA estimated that DHHS would request a copy of sampling results from 10 percent of the mines. To date, MSHA has received no such requests from HHS so these burden hours and costs are eliminated.

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 the mines using respirators will provide this information. The annual burden hours and costs from this provision are:

Responses

17 mines (1-19 employees) x 25% = 4 information provisions
31 mines (20-500 employees) x 25% = 8 information provisions
2 mines (501+ employees) x 25% = 1 information provision

TOTAL 13 information provisions

Burden Hours

13 provisions x 1 hour = 13 hours

Burden Hour Cost

13 hours x \$76.70 per hour = \$997

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 (2.667 hours) of the miner's time. The annual burden hours and costs from this provision are:

Responses

4 mines (1-19 employees) x 9 miners = 36 evaluations 8 mines (20-500 employees) x 70 miners = 560 evaluations 1 mine (501+ employees) x 450 miners = 450 evaluations TOTAL 1,046 evaluations

Burden Hours

1,046 evaluations x 2.667 hour = 2,790 hours

Burden Hour Cost

2,790 hours x \$34.21 per hour = \$95,446

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 (2.667 hours) of the miner's time. The annual burden hours and costs from this provision are:

Responses

3 miners = 3 responses

Burden Hours

3 responses x 2.667 hour = 8 hours

Burden Hour Cost

8 hours x \$34.21 per hour = \$274

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 six months. MSHA estimates that it takes a clerical worker 3 minutes (0.05 hours) to maintain a record for each affected miner. The annual burden hours and costs from this provision are:

Responses

1,046 miners = 1,046 records

Burden Hours

1,046 records \times 0.05 hour = 52 hours

Burden Hour Cost

52 hours x \$34.21 per hour = \$1,779

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 airpurifying respirator (PAPR). MSHA estimates that 10 percent of miners will need to be evaluated.

Responses

 $1,046 \text{ miners } \times 10\%$ = 105 evaluations

Burden Hours

105 evaluations x 2.667 hour = 280 hours

Burden Hour Cost

280 hours x \$34.21 per hour = \$9,579

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. The annual burden hours and costs from this provision are:

Responses

105 miners = 105 records

Burden Hours

105 records x 0.05 hour = 5 hours

Burden Hour Cost

5 hours x \$34.21 per hour = \$171

Summary of Burden Hours and Responses for Item 12

Regulation	Respondents	Responses	Hours	Costs
57.5060(d) Respirator				
Training	50	50	38	\$2,915
57.5060(d) Fit Testing	50	130	33	\$2,531
57.5066(b) Tag & Record	194	1,010	68	\$2,326
57.5066(b) Examine Tags	194	1,010	202	\$7,535
57.5066(c) Create and				
Maintain Records	194	340	227	\$8,467
57.5070 Supervisor Briefing				
Clerical Worker	194	194	32	\$1,751
57.5070 Supervisor Perform				
Training	194	459	214	\$16,414
57.5070 Clerical Prepare				
Form	194	459	77	\$2,521
57.5070 Sign Attendance				
Sheet	194	11,780	71	\$2,429
57.5071 Oral Notification	87	348	11	\$844
57.5071 Supervisor Briefs				
Clerical - Written	68	272	23	\$1,764

Regulation	Respondents	Responses	Hours	Costs
57.5071 Clerical - Written				
Notification	68	16,492	1,369	\$44,821
57.5071 Supervisor Briefs				
Clerical - Prepare & Post	39	156	65	\$2,699
57.5071 Supervisor Prepares				
and Posts Notice	64	64	16	\$1,227
57.5071 Sampling by				
Operators	194	4,656	3,106	\$238,230
57.5071 Clerical – Copy &				
Distribute	194	776	130	\$4,256
57.5075 Clerical Respond to				
Miner Requests	194	1,178	98	\$3,209
57.5060(d)(3)(4)(8)				
Supervisor Provide Material	13	13	13	\$997
57.5060(d)(3)(4)(8) Miner				
Evaluation	13	1,046	2,790	\$95,446
57.5060(d)(3)(4)(8) Miner				
Response	3	3	8	\$274
57.5060(d)(8) Maintain				
Record	13	1,046	52	\$1,779
57.5060(d)(3) Ability to				
Wear PAPR	13	105	280	\$9,579
57.5060(d)(8) Record				
Information	13	105	5	\$171
GRAND TOTAL	194	41,692	8,928	\$452,185

- 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

Annually, mines employing fewer than 20 workers will purchase 4 respirators, mines employing 20-500 workers will purchase 6 respirators, and mines employing 501 or more workers will purchase 8 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 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

17 mines (1-19 employees) x 2 respirators	= 34 respirators
31 mines (20-500 employees) x 6 respirators	= 186 respirators
2 mines (501+ employees) x 8 respirators	= <u>16 respirators</u>
TOTAL	236 respirators

Annual Cost

236 respirators x \$560 per respirator = \$132,160

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 and MSHA has deleted these estimated costs.

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:

<u>Samples</u>

66 mine (1-19 employees) x 12 samples= 792 samples122 mines (20-500 employees) x 24 samples= 2,928 samples6 mines (501+ employees) x 24 samples= $\underline{144 \text{ samples}}$ TOTAL3,864 samples

Annual Cost

3,864 samples x \$53 per sample = \$204,792

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% 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

 $11,780 \text{ miners } \times 10\%$ = 1,178 requests

Annual Cost

1,178 requests x \$1.05 per request = \$1,237

In addition, the Department of Health and Human Services (DHHS) can request health records. Initially, the number of such annual requests was estimated to be about 18 per year. To date, MSHA has received no such requests from HHS, and these costs have been eliminated.

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 physician or other licensed health care professional (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% 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 160 TC limit, mine operators must obtain medical evaluations from the PHLCP for each additional miner who must use a respirator.

Medical Evaluations 1,046 evaluations

Annual Third Party Cost

1,046 evaluations x \$75 per evaluation = \$78,450

Summary of Burden Cost for Question 13

Regulation Provision	Cost
57.5060(d) Purchase and Maintain Respirators	\$132,160
57.5071 Analyze Samples	\$204,792
57.5075 Miner Request of Health Record	\$1,237
57.5060(d)(3) Medical Evaluations	\$78,450
Total Burden Cost	\$416,639

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 December 2014, the average grade and salary of an MSHA mine inspector taking samples is GS 12 earning \$107,679 per annum or \$51.60 per hour including benefits. ² On average, the time to record sample and inspection information per miner for the full shift in one working area will be 3 hours in a mine that employs fewer than 20 workers, and 3 hours in a mine that employs 20 or more workers. Five samples are estimated to be taken in each working area. Sixty six (66) mines employing fewer than 20 workers are estimated to have, on average, 1 working area, while 103 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

66 mines (1-19 employees) x 1 working area = 66 working areas 122 mines (20-500 employees) x 2 working areas = 244 working areas 6 mines (501+ employees) x 2 working areas = 12 working areas TOTAL 322 working areas

Sampling Hours

322 working areas x 3 hours = 966 hours

Annual Cost

966 hours x \$51.60 per hour = \$49,846

When each sample is taken a filter is needed costing about \$35.

² The wage rates shown here come from the Office of Personnel Management (OPM) December 2014 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 1.36 computed from MSHA's 2015 budget submission. The final hourly wage rate was derived by dividing the adjusted annual average salary by 2,087 hours (hourly rate = FedScope Salary \times 1.36 \div 2,087); \$79,176 \times 1.36 \div 2,087 = \$51.60.

Samples

322 working areas x 5 samples each = 1,610 samples

Annual Cost

1,610 samples x \$35 per sample = \$56,350

It takes an MSHA chemist 65 minutes (1.083 hours) to analyze a sample and upload the results to MSHA's database. As of December 2014, the average grade and salary of an MSHA chemist analyzing samples is GS 13, at \$129,694 per annum or \$62.14 per hour including benefits.³ MSHA analyzes 4 out of 5 collected samples, the remainder being blanks or control samples.

<u>Samples</u>

322 working areas x 4 samples each = 1,288 samples

Sampling Hours

1,288 samples x 1.083 hours = 1,395 hours

Annual Cost

1,395 hours x \$62.14 per hour = \$86,685

Total cost to the Federal Government: \$192,881 (\$49,846 + \$56,350 + \$86,685)

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

The respondents increased because the number of mines increased. The increase in the number of mines caused number of responses and hours to increase; costs were slightly reduced, because the cost to purchase and maintain repirators are for replacement respirators for the newly affected miners and newly hired employees, which are less in number and affect less mines.

Respondents from 173 to 194 (increase of 21) Responses from 28,022 to 41,692 (increase of 13,670) Hours from 3,329 to 8,928 (increase of 5,599) Costs from \$509,532 to \$416,639 (decrease of \$92,893)

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.

³ The wage rates shown here come from the Office of Personnel Management (OPM) December 2014 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 1.36 computed from MSHA's 2015 budget submission. The final hourly wage rate was derived by dividing the adjusted annual average salary by 2,087 hours (hourly rate = FedScope Salary \times 1.36 \div 2,087); \$95,363 \times 1.36 \div 2,087 = \$62.14.

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 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

This information collection does not employ statistical methods.

The Federal Mine Safety & Health Act of 1977, Public Law 91-173, as amended by Public Law 95-164

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled that this Act may be cited as the "Federal Mine Safety and Health Act of 1977".

TITLE I—GENERAL MANDATORY SAFETY AND HEALTH STANDARDS SEC. 101. (a) The Secretary shall by rule in accordance with procedures set forth in this section and in accordance with section 553 of title 5, United States Code (without regard to any reference in such section to sections 556 and 557 of such title), 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 or other mines.