#### Supporting Statement for Paperwork Reduction Act Submissions

#### OMB Control Number: 1219 -0135

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

#### Form Number(s): None

Authority: 30 C.F.R. Sections 57.5060, 57.5065, 57.5066, 57.5070, 57.5071, and 57.5075

#### **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 Item 17 or the OMB Form 83-I 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.

Under Section 101(a) of the Federal Mine Safety and Health Act of 1977 (Mine Act), and Title 5, United States Code, Section 553, the Secretary of Labor shall 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.

Diesel particulate matter (DPM) is a probable 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 §§ 57.5060, 57.5065, 57.5076, 57.5071, and 57.5075(a) and (b)(3).

#### 30 C.F.R. Section 57.5060(c)

Under this section, if a mine has technological or economic constraints in meeting the final DPM PEL contained in § 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 authorized representative of the miners.

#### 30 C.F.R. 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 each 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 the miner to wear it. When respiratory protection is required, the mine operator must establish a respiratory protection program that complies with MSHA's existing respiratory protection standards for control of airborne contaminants at metal and nonmetal mines at § 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 **§ 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 C.F.R. 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 C.F.R. 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 C.F.R. 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 C.F.R. 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 must receive annual health training in accordance with § 57.5070(a)(1) through (a)(4). The mine operator must retain a record of training for one year after completion.

#### 30 C.F.R. 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 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 C.F.R. Section 57.5075**

The recordkeeping requirements of the DPM standards contained in §§ 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 §§ 57.5060 through 57.5071, and the retention period for these records.

The Table in § 57.5075(a) includes a conforming change by adding 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;

#### 30 C.F.R. 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.

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.

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, we intend 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 (Item 5 of OMB Form 83-I), 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 our web-site specific to Diesel matters. On our homepage <u>at www.msha.gov</u>, scroll down to "Special Initiatives," and click on the link to "Diesel Particulate," then click on "Metal/Nonmetal Mining Related" for the MNM DPM Single Source Page.

## 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 §§ 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 §§ 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 C.F.R. 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, 2012 (77 FR 33002). 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 in Item 13 of OMB Form 83-I. \* Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 14.

The purpose of this response to question 12 is to show 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 from 2010 are used:

\$66.98 a mine supervisor; \$28.34 for a miner;\$26.85 for a clerical worker and; \$30.27 for a mine mechanic.

#### §57.5060(c) Special Extensions

Under § 57.5060(c), a mine operator needing additional time to comply with the final DPM PEL (160TC  $\mu$ g/m<sup>3</sup>, 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 the final 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 a period of one year. Based on previous applications, we estimate that there will be 1 application made from mines that employ 20 to 500

workers. For these mines, it would take a mine supervisor 16 hours to prepare an application for a special extension, and a clerical worker 0.33 hours (20 minutes) to photocopy and distribute the extension to the miners' representative. Tables 1 and 2 show the burden hours and burden costs associated with this section.

### Table 1: Annual Burden Hours and Costs for Supervisors to Prepare an Application for aSpecial Extension to Final Limit Under § 57.5060(c)

| Mine Size      | # of<br>Mines | Burden<br>Hours per<br>Mine | Total Annual<br>Burden Hours | Superv.<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|----------------|---------------|-----------------------------|------------------------------|------------------------------|--------------------------|
| Large (20-500) | 1             | 16                          | 16                           | \$66.98                      | \$1,072                  |

### Table 2: Annual Burden Hours and Costs for Clerical Worker to Prepare an Applicationfor a Special Extension to Final Limit Under § 57.5060(c)

| Mine Size           | # of<br>Mines | Burden<br>Hours per<br>Mine | Total Annual<br>Burden Hours | Clerical<br>Wage<br>(per Hr.) | Annual<br>Burden Cost |
|---------------------|---------------|-----------------------------|------------------------------|-------------------------------|-----------------------|
| Large (20<br>– 500) | 1             | 0.33                        | 0.33                         | \$26.85                       | \$9                   |

#### 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 § 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 existing §§ 57.5005(a) & (b) addressing air quality standards for metal and nonmetal mines., and paragraphs (d)(1) through (d)(8) of § 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. The affected mines that will need to provide the one-session training will be: 66 mines employing fewer than 20 workers; 103 mines employing 20 to 500 workers, and 4 mines employing more than 500 workers. Table 3 shows annual burden hours and costs concerning the supervisor's respirator training.

### Table 3: Section 57.5060(d) – Miner Respirator Training by Mine Supervisors (Annual<br/>Burden Hours and Costs)

| Mine Size<br>(Emp.) | # of<br>Mines | Training &<br>Record Keeping<br>Hrs. | Annual<br>Burden<br>Hours | Supvr.<br>Wage (per<br>hr.) | Annual<br>Burden<br>Cost |
|---------------------|---------------|--------------------------------------|---------------------------|-----------------------------|--------------------------|
| Small<br>(<20)      | 66            | 0.75                                 | 50                        | \$66.98                     | \$3,349                  |
| Large (20<br>– 500) | 103           | 0.75                                 | 77                        | \$66.98                     | \$5,157                  |
| Large<br>(>500)     | 4             | 0.75                                 | 3                         | \$66.98                     | \$201                    |
| Total               | 173           |                                      | 130                       |                             | \$8,707                  |

#### 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 tested in each mine in each size category. The number of mines and the time to perform fit testing is the same as in the first year. Table 4 shows annual burden hours and costs related to fit testing.

### Table 4: Section 57.5060(d) – Miner Respirator Fit Testing by Mine Supervisors (Annual Burden Hours and Costs)

| Mine<br>Size<br>(emp.) | # of<br>Mines | # of Fit<br>Tests per<br>Mine | Time to<br>Fit Test<br>Hrs. | Annual<br>Burden<br>Hrs. | Supvr.Wage<br>(per Hr.) | Annual<br>Burden<br>Cost |
|------------------------|---------------|-------------------------------|-----------------------------|--------------------------|-------------------------|--------------------------|
| Small<br><20           | 66            | 1                             | 0.25                        | 17                       | \$66.98                 | \$1,139                  |
| Large<br>(20 –<br>500) | 103           | 1                             | 0.25                        | 26                       | \$66.98                 | \$1,741                  |
| Large<br>(>500)        | 4             | 1                             | 0.25                        | 1                        | \$66.98                 | \$67                     |
| Total                  | 173           |                               |                             | 44                       |                         | \$2,947                  |

#### 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. Annually MSHA estimates that, on average, in mines with fewer than 20 workers, 40 percent of diesel powered equipment (632 machines) will be tagged. For larger mines, which generally have more extensive preventive maintenance programs, MSHA estimates that annually, on average, 20 percent of the diesel-powered equipment will be tagged. Therefore, the number of diesel machines to be tagged annually will be 950 machines in mines employing 20 to 500 workers, and 192 machines in mines employing more than 500 workers. It is estimated 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).

Table 5 shows annual burden hours to tag diesel powered equipment concerning emission related problems.

| Mine Size<br>(Emp.) | # of<br>Tags | Tag and<br>Record<br>(Hrs.)ª | Annual<br>Burden<br>Hours | Miner Wage<br>(per Hr.) | Annual<br>Burden Cost |
|---------------------|--------------|------------------------------|---------------------------|-------------------------|-----------------------|
| Small<br>(<20)      | 632          | 0.067                        | 42                        | \$28.34                 | \$1,190               |
| Large (20<br>– 500) | 950          | 0.067                        | 64                        | \$28.34                 | \$1,814               |
| Large<br>(>500)     | 192          | 0.067                        | 13                        | \$28.34                 | \$368                 |
| Total               | 1,774        |                              | 119                       |                         | \$3,372               |

Table 5: Section 57.5066(b) - Miners Tag Diesel Equipment and Record Tag (Annual<br/>Burden Hours and Costs)

a 0.067 = 0.0333 (to tag the equipment) + 0.0333 (to record the tag)

#### 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: 632 machines in mines employing fewer than 20 workers, 950 machines in mines employing 20 to 500 workers, and 192 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). Table 6 shows annual burden hours and costs to examine tagged equipment and record the examination.

### Table 6: Section 57.5066(b) - Examine Tagged Diesel Equipment and Record Examination(Annual Burden Hours and Costs)

| Mine Size<br>(Emp.) | # of<br>Tags | Examine &<br>Record (Hrs.) <sup>a</sup> | Annual<br>Burden<br>Hours | Mechanic<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|---------------------|--------------|-----------------------------------------|---------------------------|-------------------------------|--------------------------|
| Small<br>(<20)      | 632          | 0.20                                    | 126                       | \$30.27                       | \$3,814                  |
| Large (20<br>– 500) | 950          | 0.20                                    | 190                       | \$30.27                       | \$5,751                  |
| Large<br>(>500)     | 192          | 0.20                                    | 38                        | \$30.27                       | \$1,150                  |
| Total               | 1,774        |                                         | 354                       |                               | \$10,715                 |

 $a^{\circ} 0.20 = 0.167$  (to examine the equipment) + 0.033 (to record the examination)

#### 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 (0.67 hours). Table 7 shows annual burden hours and costs to create and maintain records for competent persons conducting repairs on diesel equipment.

### Table 7: Section 57.5066(c) – Create and Maintain Records for Competent Maintenance Personnel (Annual Burden Hours and Costs)

| Mine<br>Size<br>(Emp.) | # of<br>Mechanics | Examine &<br>Record<br>(Hrs.)a | Annual<br>Burden<br>Hours | Mechanic<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|------------------------|-------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|
| Small<br>(<20)         | 2                 | 0.67                           | 1                         | \$30.27                       | \$30                     |
| Large (20<br>– 500)    | 10                | 0.67                           | 7                         | \$30.27                       | \$212                    |
| Large<br>(>500)        | 17                | 0.67                           | 11                        | \$30.27                       | \$333                    |
| Total                  | 29                |                                | 19                        |                               | \$575                    |

#### 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 §§ 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, 103 mines employing 20 to 500 workers, and 4 mines employing more than 500 workers. Table 8 shows annual burden hours and costs for a supervisor to brief a clerical worker concerning miner health training.

| Mine Size<br>(Emp.) | # of<br>Mines | Briefing<br>(Hrs.) | Annual<br>Burden Hrs. | Superv. Wage<br>(per Hr.) | Annual<br>Burden Cost |
|---------------------|---------------|--------------------|-----------------------|---------------------------|-----------------------|
| Small<br>(<20)      | 66            | 0.083              | 5                     | \$66.98                   | \$335                 |
| Large (20<br>– 500) | 103           | 0.083              | 9                     | \$66.98                   | \$603                 |
| Large<br>(>500)     | 4             | 0.083              | 1                     | \$66.98                   | \$67                  |
| Total               | 173           |                    | 15                    |                           | \$1,005               |

### Table 8: Section 57.5070 - Mine Supervisors Brief Clerical Workers Regarding HealthTraining (Annual Burden Hours and Costs)

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

As noted earlier, 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 §§ 57.5070(a)(1) through (a)(4). For each mine, MSHA estimates that it will take a clerical worker 5 minutes (0.083 hours) to be briefed by a supervisor concerning such training. The number of mines affected by this provision will be: 66 mines employing fewer than 20 workers, 103 mines employing 20 to 500 workers, and 4 mines employing more than 500 workers. Table 9 shows annual burden hours and costs for a clerical worker to be briefed by a supervisor concerning miner health training.

Table 9: Section 57.5070 - Clerical Workers Briefed by Mine Supervisors RegardingHealth Training (Annual Burden Hours and Costs)

| Mine Size<br>(Emp.) | # of<br>Mines | Briefing<br>(Hrs.) | Annual<br>Burden Hrs. | Clerical Wage<br>(per Hr.) | Annual<br>Burden Cost |
|---------------------|---------------|--------------------|-----------------------|----------------------------|-----------------------|
| Small<br>(<20)      | 66            | 0.083              | 5                     | \$26.85                    | \$134                 |
| Large (20<br>– 500) | 103           | 0.083              | 9                     | \$26.85                    | \$242                 |
| Large               | 4             | 0.083              | 1                     | \$26.85                    | \$27                  |

| (>500) |     |    |       |
|--------|-----|----|-------|
| Total  | 173 | 15 | \$403 |

#### 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. It is assumed that 5% 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. Table 10 shows annual burden hours and costs for supervisors to give miner health training.

| Table 10: Section 57.5070 - Mine Supervisors Perform Health Training Sessions (Annual |
|---------------------------------------------------------------------------------------|
| Burden Hours and Costs)                                                               |

| Mine Size<br>(Emp.) | # of<br>Training<br>Sessions | Heath<br>Training<br>(Hrs.) | Annual<br>Burden<br>Hrs. | Superv.<br>Wage (per<br>hr.) | Annual<br>Burden<br>Cost |
|---------------------|------------------------------|-----------------------------|--------------------------|------------------------------|--------------------------|
| Small<br>(<20)      | 66                           | 0.25                        | 17                       | \$66.98                      | \$1,139                  |
| Large (20<br>– 500) | 280                          | 0.50                        | 140                      | \$66.98                      | \$9,377                  |
| Large<br>(>500)     | 91                           | 0.50                        | 46                       | \$66.98                      | \$3,081                  |
| Total               | 437                          |                             | 203                      |                              | \$13,597                 |

#### 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 average number of training sessions to be held by a mine, in each mine size category, will be: 66 sessions in mines employing fewer than 20 workers, 280 sessions in mines employing 20 to 500 workers, and 91 sessions in mines employing more than 500 workers. Table 11 shows annual burden hours and costs for clerical workers to prepare registration sheets for health training sessions.

| Mine<br>Size<br>(Emp.) | # of<br>Training<br>Sessions | Prepare<br>Registration<br>Sheet (Hrs.) | Annual<br>Burden<br>Hrs. | Clerical<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|------------------------|------------------------------|-----------------------------------------|--------------------------|-------------------------------|--------------------------|
| Small<br>(<20)         | 66                           | 0.167                                   | 11                       | \$26.85                       | \$295                    |
| Large<br>(20 –<br>500) | 280                          | 0.167                                   | 47                       | \$26.85                       | \$1,262                  |
| Large<br>(>500)        | 91                           | 0.167                                   | 15                       | \$26.85                       | \$403                    |
| Total                  | 437                          |                                         | 73                       |                               | \$1,960                  |

### Table 11: Section 57.5070: Clerical Workers Prepare Registration Sheet for HealthTraining Sessions (Annual Burden Hours and Costs)

#### 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. Table 12 represents the annual burden hours and costs, by mine size, resulting from this provision.

 Table 12: Section 57.5070 - Miners Sign Health Training Attendance Sheet (Annual Burden Hours and Costs)

| Mine Size<br>(Emp.) | # of<br>Miners | Sign<br>Name<br>(Hrs.) | Annual<br>Burden Hrs. | Miner Wage<br>(per Hr.) | Annual<br>Burden Cost |
|---------------------|----------------|------------------------|-----------------------|-------------------------|-----------------------|
| Small<br>(<20)      | 580            | 0.006                  | 3                     | \$28.34                 | \$85                  |
| Large (20 –<br>500) | 8,500          | 0.006                  | 51                    | \$28.34                 | \$1,445               |
| Large<br>(>500)     | 2,700          | 0.006                  | 16                    | \$28.34                 | \$453                 |
| Total               | 11,780         |                        | 70                    |                         | \$1,983               |

#### 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. We estimate mine operators will sample four times a year to determine a 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 appear in Table 13.

| Mine<br>Size<br>(Emp.)  | # of<br>Mines<br>(45%) | # of Oral<br>Notifications<br>per Mine | Oral<br>Notification<br>(Hrs.) | Annual<br>Burden<br>Hrs. | Superv.<br>Wage<br>(per hr.) | Annual<br>Burden<br>Cost |
|-------------------------|------------------------|----------------------------------------|--------------------------------|--------------------------|------------------------------|--------------------------|
| Small<br>(<20)          | 30                     | 4                                      | 0.033                          | 4                        | \$66.98                      | \$268                    |
| Large<br>(20 to<br>500) | 46                     | 4                                      | 0.033                          | 6                        | \$66.98                      | \$402                    |
| Large<br>(>500)         | 2                      | 4                                      | 0.033                          | 1                        | \$66.98                      | \$67                     |
| Total                   | 78                     |                                        |                                | 11                       |                              | \$737                    |

### Table 13: Section 57.5071 - Mine Supervisor Oral Notification of Sampling (Annual Burden Hours and Costs)

#### 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. These annual burden hours and costs appear in Table 14.

| Table 14: Section 57.5071 - Mine Supervisor Briefs Clerical Worker Regarding Written |
|--------------------------------------------------------------------------------------|
| Notification of Sampling (Annual Burden Hours and Costs)                             |

| Mine Size<br>(Emp.) | # of<br>Mines<br>(35%) | Time to Brief<br>at Each Mine<br>(Hrs.) | Annual<br>Burden<br>Hrs. | Superv.<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|---------------------|------------------------|-----------------------------------------|--------------------------|------------------------------|--------------------------|
| Small<br>(<20)      | 23                     | 0.083                                   | 2                        | \$66.98                      | \$134                    |
| Large (20<br>– 500) | 37                     | 0.083                                   | 3                        | \$66.98                      | \$201                    |
| Large<br>(>500)     | 1                      | 0.083                                   | 1                        | \$66.98                      | \$67                     |
| Total               | 61                     |                                         | 6                        |                              | \$402                    |

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 shown in Table 15.

### Table 15: Section 57.5071 - Clerical Worker Prepares Written Notification of Sampling<br/>(Annual Burden Hours and Costs)

| Mine<br>Size<br>(Emp.) | # of<br>Mines<br>(35%) | # of Written<br>Notifications<br>(35% Miners) | Written<br>Notification<br>(Hrs.) | Annual<br>Burden<br>Hrs. | Clerical<br>Wage<br>(per Hr.) | Annual<br>Burden<br>Cost |
|------------------------|------------------------|-----------------------------------------------|-----------------------------------|--------------------------|-------------------------------|--------------------------|
| Small<br>(<20)         | 23                     | 203                                           | 0.083                             | 17                       | \$26.85                       | \$456                    |
| Large(20<br>– 500)     | 36                     | 2,975                                         | 0.083                             | 247                      | \$26.85                       | \$6,632                  |
| Large<br>(>500)        | 1                      | 945                                           | 0.083                             | 78                       | \$26.85                       | \$2,094                  |
| Total                  | 60                     | 4,123                                         |                                   | 342                      |                               | \$9,182                  |

#### 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 of a supervisor's time to brief a clerical worker. These annual burden hours and costs are exhibited in Table 16.

### Table 16: Section 57.5071 - Mine Supervisor Briefs Clerical Worker Regarding Posted Notification of Sampling (Annual Burden Hours and Costs)

| Mine<br>Size<br>(Emp.) | # of<br>Mines<br>(20%) | # of Posted<br>Notifications<br>per Mine | Briefing<br>Clerical<br>Worker<br>(Hrs.) | Annual<br>Burden<br>Hrs. | Superv.<br>Wage<br>(per Hr.) | Annual<br>Burden<br>Cost |
|------------------------|------------------------|------------------------------------------|------------------------------------------|--------------------------|------------------------------|--------------------------|
| Small<br>(<20)         | 13                     | 4                                        | 0.083                                    | 4                        | \$66.98                      | \$268                    |
| Large<br>(20 –<br>500) | 21                     | 4                                        | 0.083                                    | 7                        | \$66.98                      | \$469                    |
| Large<br>(>500)        | 1                      | 4                                        | 0.083                                    | 1                        | \$66.98                      | \$67                     |
| Total                  | 35                     |                                          |                                          | 12                       |                              | \$804                    |

It will take the clerical worker fifteen minutes to prepare and post the notice and five minutes to be briefed by the supervisor. Table 17 presents these annual burden hours and costs.

### Table 17: Section 57.5071 - Clerical Workers Prepare and Post Notification of Sampling<br/>(Annual Burden Hours and Costs)

| Mine<br>Size<br>(Emp.) | # of<br>Mines<br>(20%) | # of Posted<br>Notifications<br>per Mine | Briefing<br>Clerical<br>Worker<br>(Hrs.) a | Annual<br>Burden<br>Hrs. | Clerical<br>Wage<br>(per Hr.) | Annual<br>Burden<br>Cost |
|------------------------|------------------------|------------------------------------------|--------------------------------------------|--------------------------|-------------------------------|--------------------------|
| Small<br>(<20)         | 13                     | 4                                        | 0.25                                       | 13                       | \$26.85                       | \$349                    |
| Large<br>(20 –<br>500) | 21                     | 4                                        | 0.25                                       | 21                       | \$26.85                       | \$564                    |
| Large<br>(>500)        | 1                      | 4                                        | 0.25                                       | 1                        | \$26.85                       | \$27                     |
| Total                  | 35                     |                                          |                                            | 35                       |                               | \$940                    |

#### 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. These annual burden hours and costs are displayed in Table 18. MSHA assumes that 20 percent of mines with fewer than 20 workers and 40 percent of larger mines will require corrective action.

### Table 18: Section 57.5071 - Mine Supervisor Prepares and Posts Notice of Corrective Action (Annual Burden Hours and Costs)

| Mine Size<br>(Emp.) | # of<br>Mines<br>(20%) | Prepare and<br>Post Notice<br>(Hrs.) | Annual<br>Burden<br>Hrs | Supervisory<br>Wage (per hr.) | Annual<br>Burden<br>Cost |
|---------------------|------------------------|--------------------------------------|-------------------------|-------------------------------|--------------------------|
| Small<br>(<20)      | 13                     | 0.25                                 | 3                       | \$66.98                       | \$201                    |
| Large (20<br>– 500) | 21                     | 0.25                                 | 5                       | \$66.98                       | \$335                    |
| Large<br>(>500)     | 1                      | 0.25                                 | 1                       | \$66.98                       | \$67                     |
| Total               | 35                     |                                      | 9                       |                               | \$603                    |

### 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. We project 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 miner 20 minutes (0.3333 hrs) to perform one sample. Table 19 shows burden hours and related costs to operators that perform their own sampling.

| Mine<br>Size<br>(Emp.) | # of<br>Mines | # of Samples<br>Annually per<br>Mine <sup>a</sup> | Time to<br>Take a<br>Sample<br>(Hrs.) | Annual<br>Burden<br>Hrs. | Miner<br>Wage<br>(per Hr.) | Annual<br>Burden<br>Cost |
|------------------------|---------------|---------------------------------------------------|---------------------------------------|--------------------------|----------------------------|--------------------------|
| Small<br>(<20)         | 66            | 24                                                | 0.333                                 | 527                      | \$28.34                    | \$14,935                 |
| Large<br>(20 –<br>500) | 103           | 24                                                | 0.333                                 | 823                      | \$28.34                    | \$23,324                 |
| Large<br>(>500)        | 4             | 24                                                | 0.333                                 | 32                       | \$28.34                    | \$907                    |
| Total                  | 173           |                                                   |                                       | 1,382                    |                            | \$39,166                 |

### Table 19: Section 57.5071 - Sampling by Operators(Annual Burden Hours and Costs)

<sup>a</sup> 24 = 3 samples per area samples x 2 areas sampled per mine x 4 sample times per year.

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 appear in Table 20.

### Table 20: Section 57.5071 – Clerical Worker Copies and Distributes Sampling Results (Annual Burden Hours and Costs)

| Mine<br>Size<br>(Emp.) | # of<br>Mines | # of<br>Samplings<br>per Mine | Copy &<br>Distribute<br>(Hrs.) | Annual<br>Burden<br>Hrs. | Clerical<br>Wage<br>(per Hr. | Annual<br>Burden<br>Cost |
|------------------------|---------------|-------------------------------|--------------------------------|--------------------------|------------------------------|--------------------------|
| Small<br>(<20)         | 66            | 4                             | 0.167                          | 44                       | \$26.85                      | \$1,181                  |
| Large<br>(20 –<br>500) | 103           | 4                             | 0.167                          | 69                       | \$26.85                      | \$1,853                  |
| Large<br>(>500)        | 4             | 4                             | 0.167                          | 3                        | \$26.85                      | \$81                     |
| Total                  | 173           |                               |                                | 116                      |                              | \$3,115                  |

#### 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 appear in Table 21

### Table 21: 57.5075 - Clerical Workers Respond to Requests for Health Records by Miners(Annual Burden Hours and Costs)

| Mine<br>Size<br>(Emp.) | # of<br>Miners | # of<br>Requests<br>(10%) | Respond to<br>Request<br>(Hrs.) | Annual<br>Burden<br>(Hrs) | Clerical<br>Wage (per<br>hr.) | Annual<br>Burden<br>Cost) |
|------------------------|----------------|---------------------------|---------------------------------|---------------------------|-------------------------------|---------------------------|
| Small<br>(<20)         | 580            | 58                        | 0.083                           | 5                         | \$26.85                       | \$134                     |
| Large<br>(20 –<br>500) | 8,500          | 850                       | 0.083                           | 71                        | \$26.85                       | \$1,906                   |
| Large<br>(>500)        | 2,700          | 270                       | 0.083                           | 22                        | \$26.85                       | \$591                     |
| Total                  | 11,780         | 1,178                     |                                 | 98                        |                               | \$2,631                   |

#### 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 costs are eliminated.

#### 30 C.F.R. Sections 57.5060(d)(3), (d)(4) and (d)(8)

Mine operators must provide medical record information annually 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. See Table 22 below.

| Mine Size<br>(Emp.) | No. of<br>Mines | Times<br>Each Year | Annual<br>Burden Hrs. | Superv. Wage<br>(per Hr.) | Annual<br>Burden Cost |
|---------------------|-----------------|--------------------|-----------------------|---------------------------|-----------------------|
| Small<br>(<20)      | 2               | 1                  | 2                     | \$66.98                   | \$134                 |
| Large (20<br>– 500) | 10              | 1                  | 10                    | \$66.98                   | \$670                 |
| Large<br>(>500)     | 1               | 1                  | 1                     | \$66.98                   | \$67                  |
| Total               | 13              |                    | 13                    |                           | \$871                 |

 Table 22: The 160 TC level - Supervisor Time to Provide Material to PLHCP

The miner must take the time to have the evaluation performed by the PLHCP concerning the respiratory protection program. This is done once per year, and takes 2 hours and 40 minutes (2.67 hours) of the miner's time. See Table 23 below.

| Mine Size<br>(Emp.) | # of<br>Miners | Times<br>Each Year | Annual<br>Burden Hrs. | Miner Wage<br>(per Hr.) | Annual<br>Burden Cost |
|---------------------|----------------|--------------------|-----------------------|-------------------------|-----------------------|
| Small<br>(<20)      | 32             | 1                  | 32                    | \$28.34                 | \$907                 |
| Large (20 – 500)    | 180            | 1                  | 180                   | \$28.34                 | \$5,101               |
| Large<br>(>500)     | 16             | 1                  | 16                    | \$28.34                 | \$453                 |
| Total               | 228            |                    | 228                   |                         | \$6,461               |

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. The Agency estimates that each affected miner will provide a response in writing once per year and that it takes 2 hours and 40 minutes (2.67 hours) of the miner's time. See Table 24 below.

| Mine<br>Size<br>(Emp.) | # of<br>Miners | Times<br>Each<br>Year | Miners<br>Time | Annual<br>Burden<br>Hrs. | Miner<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|------------------------|----------------|-----------------------|----------------|--------------------------|----------------------------|--------------------------|
| Small<br>(<20)         | 1              | 1                     | 2.67           | 3                        | \$28.34                    | \$85                     |
| Large (20<br>– 500)    | 1              | 1                     | 2.67           | 3                        | \$28.34                    | \$85                     |
| Large<br>(>500)        | 1              | 1                     | 2.67           | 3                        | \$28.34                    | \$85                     |
| Total                  | 3              |                       |                | 9                        |                            | \$255                    |

 Table 24: The 160 TC level - Miner Time to Respond to Evaluation

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. The Agency estimates that it takes a clerical worker 3 minutes (0.05 hours) to maintain a record for each affected miner. See Table 25 below.

 Table 25: § 57.5060(d)(8) – The 160 TC Level (To Maintain a Record)

| Mine<br>Size<br>(Emp.) | # of<br>Miners | Times<br>Each<br>Year | Miner's<br>Time | Annual<br>Burden<br>Hrs. | Miner<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|------------------------|----------------|-----------------------|-----------------|--------------------------|----------------------------|--------------------------|
| Small<br>(<20)         | 2              | 1                     | 0.05            | 0.10                     | \$28.34                    | \$3                      |
| Large (20<br>– 500)    | 11             | 1                     | 0.05            | 0.55                     | \$28.34                    | \$16                     |
| Large<br>(>500)        | 1              | 1                     | 0.05            | 0.05                     | \$28.34                    | \$1                      |
| Total                  | 14             |                       |                 | 0.70                     |                            | \$20                     |

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.

| Mine<br>Size<br>(Emp.) | # of<br>Miners | Times<br>Each<br>Year | Miners<br>Time | Annual<br>Burden<br>Hrs. | Miner<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|------------------------|----------------|-----------------------|----------------|--------------------------|----------------------------|--------------------------|
| Small<br>(<20)         | 1              | 1                     | 2.67           | 3                        | \$28.34                    | \$85                     |
| Large (20<br>– 500)    | 1              | 1                     | 2.67           | 3                        | \$28.34                    | \$85                     |
| Large<br>(>500)        | 1              | 1                     | 2.67           | 3                        | \$28.34                    | \$85                     |
| Total                  | 3              |                       |                | 9                        |                            | \$255                    |

Table 26 - § 57.5060(d)(3) – The 160 Level (Miner's Ability to Wear PAPR)

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. See Table 27 below.

 Table 27 - § 57.5060(d)(8) – The 160 Level (Additional Information for Record)

| Mine<br>Size<br>(Emp.) | # of<br>Miners | Times<br>Each<br>Year | Miners<br>Time | Annual<br>Burden<br>Hrs. | Miner<br>Wage (per<br>Hr.) | Annual<br>Burden<br>Cost |
|------------------------|----------------|-----------------------|----------------|--------------------------|----------------------------|--------------------------|
| Small<br>(<20)         | 1              | 1                     | 0.05           | 0.05                     | \$28.34                    | \$1                      |
| Large (20<br>– 500)    | 2              | 1                     | 0.05           | 0.10                     | \$28.34                    | \$3                      |
| Large<br>(>500)        | 1              | 1                     | 0.05           | 0.05                     | \$28.34                    | \$1                      |
| Total                  | 4              |                       |                | 0.20                     |                            | \$5                      |

| Table | Regulation                                         | Respondents | Responses | Hours | Costs     |
|-------|----------------------------------------------------|-------------|-----------|-------|-----------|
| 1     | 57.5060(c) Supervisor                              | 1           | 1         | 16    | \$1,072   |
| 2     | 57.5060(c) Clerical                                | 1           | 1         | 0.33  | \$9       |
| 3     | 57.5060(d) Respirator Training                     | 173         | 173       | 130   | \$8,707   |
| 4     | 57.5060(d) Fit Testing                             | 173         | 173       | 44    | \$2,947   |
| 5     | 57.5066(b) Tag & Record                            | 173         | 1,774     | 119   | \$3,372   |
| 6     | 57.5066(b) Examine Tags                            | 173         | 1,774     | 354   | \$10,715  |
| 7     | 57.5066(c) Create and Maintain                     |             |           |       |           |
|       | Records                                            | 29          | 29        | 19    | \$575     |
| 8     | 57.5070 Supervisor Briefing                        | 173         | 173       | 15    | \$1,005   |
| 9     | 57.5070 Clerical Briefing                          | 173         | 173       | 15    | \$403     |
| 10    | 57.5070 Supervisor Perform Training                | 173         | 437       | 203   | \$13,597  |
| 11    | 57.5070 Clerical Prepare Form                      | 173         | 437       | 73    | \$1,960   |
| 12    | 57.5070 Sign Attendance Sheet                      | 173         | 11,780    | 70    | \$1,983   |
| 13    | 57.5071 Oral Notification                          | 78          | 312       | 11    | \$737     |
| 14    | 57.5071 Supervisor Briefs Clerical -<br>Written    | 60          | 60        | 6     | \$402     |
| 15    | 57.5071 Clerical - Written<br>Notification         | 60          | 4,123     | 342   | \$9,182   |
| 16    | 57.5071 Supervisor Briefs Clerical -<br>Posted     | 35          | 140       | 12    | \$804     |
| 17    | 57.5071 Clerical Briefed; Prepare & Post           | 35          | 140       | 35    | \$940     |
| 18    | 57.5071 Supervisor Prepares and Posts Notice       | 35          | 35        | 9     | \$603     |
| 19    | 57.5071 Sampling by Operators                      | 173         | 4152      | 1,382 | \$39,166  |
| 20    | 57.5071 Clerical – Copy & Distribute               | 173         | 692       | 116   | \$3,115   |
| 21    | 57.5075 Clerical Respond to Miner<br>Requests      | 173         | 1,178     | 98    | \$2,631   |
| 22    | 57.5060(d)(3)(4)(8) Supervisor<br>Provide Material | 13          | 13        | 13    | \$871     |
| 23    | 57.5060(d)(3)(4)(8) Miner Evaluation               | 173         | 228       | 228   | \$6,461   |
| 24    | 57.5060(d)(3)(4)(8) Miner Response                 | 3           | 3         | 9     | \$255     |
| 25    | 57.5060(d)(8) Maintain Record                      | 14          | 14        | 0.70  | \$20      |
| 26    | 57.5060(d)(3) Ability to Wear PAPR                 | 3           | 3         | 9     | \$255     |
| 27    | 57.5060(d)(8) Record Information                   | 4           | 4         | 0.20  | \$5       |
|       | GRAND TOTAL                                        | 173         | 28,022    | 3,329 | \$111,792 |

#### Summary of Burden Hours and Responses for Item 12

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 shown in Items 12 and 14).

\* 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 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:

| Mine Size<br>(Emp.) | # of<br>Mines | # of Respirators<br>per Mine | Annual Cost per<br>Respirator <sup>a</sup> | Annual<br>Costs |
|---------------------|---------------|------------------------------|--------------------------------------------|-----------------|
| Small (<20)         | 66            | 2                            | \$560                                      | \$73,920        |
| Large (20 –<br>500) | 103           | 6                            | \$560                                      | \$346,080       |
| Large               | 4             | 8                            | \$560                                      | \$17,920        |

 Table 28. Section 57.5060(d) - Costs to Purchase and Maintain Respirators

| (>500) |     |  |           |
|--------|-----|--|-----------|
| Total  | 173 |  | \$437,920 |

<sup>a</sup> \$560 = \$40 (for the respirator) + \$10/cartridge/week x 52 weeks)

#### 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. 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:

| Mine Size<br>(Emp.) | # of<br>Mines | # of Samples per<br>Mine | Cost per<br>Sample <sup>a</sup> | Total Annual<br>Costs |
|---------------------|---------------|--------------------------|---------------------------------|-----------------------|
| Small (<20)         | 1             | 12                       | \$53                            | \$636                 |
| Large (20 –<br>500) | 52            | 24                       | \$53                            | \$66,144              |
| Large (>500)        | 2             | 24                       | \$53                            | \$2,544               |
| Total               | 54            |                          |                                 | \$69,324              |

Table 29. Annual Costs for Analyzing Samples

<sup>a</sup> \$53 = \$20 for disposable filter cassette + \$33 to analyze sample.

#### 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 per request. Annual costs for miners related to requesting health records will be as follows:

| Mine Size<br>(emp.) | # of<br>Miners | # of<br>Requests<br>(10%) | Copying costs per Request <sup>a</sup> | Postage per<br>Request | Total<br>annual<br>Costs |
|---------------------|----------------|---------------------------|----------------------------------------|------------------------|--------------------------|
| Small<br>(<20)      | 580            | 58                        | \$0.60                                 | \$0.45                 | \$61                     |
| Large (20<br>– 500) | 8,500          | 850                       | \$0.60                                 | \$0.45                 | \$893                    |
| Large<br>(>500)     | 2,700          | 270                       | \$0.60                                 | \$0.45                 | \$284                    |
| Total               | 11,780         | 1,178                     |                                        |                        | \$1,238                  |

Table 30. Section 57.5075 - Annual Costs for Miners Requests of Health Records

<sup>a</sup> \$0.60 = 4 pages x \$0.15/page

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 (from May 18, 2006 rule)

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. See Table 31 below.

| Mine Size (emp.) | # of Miners | Cost Per Miner | Total Third Party Cost |
|------------------|-------------|----------------|------------------------|
| Small (<20)      | 2           | \$75           | \$150                  |
| Large (20 – 500) | 11          | \$75           | \$825                  |
| Large (>500)     | 1           | \$75           | \$75                   |
| Total            | 14          |                | \$1,050                |

 Table 31: § 57.5060(d)(3) – The 160 Level (Cost to Provide Medical Evaluations)

#### Summary of Burden Cost for Item 13

| Table          | <b>Regulation – Tables 28-31</b>             | Cost      |  |
|----------------|----------------------------------------------|-----------|--|
| 28             | 57.5060(d) Purchase and Maintain Respirators | \$437,920 |  |
| 29             | 57.5071 Analyze Samples                      | \$69,324  |  |
| 30             | 57.5075 Miner Request of Health Record       | \$1,238   |  |
| 31             | 57.5060(d)(3) Medical Evaluations            | \$1,050   |  |
| Total <b>E</b> | \$509,532                                    |           |  |

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. On average, an inspector, earning about \$61.32 per hour (GS 12, 2012 wage rate including benefits), will perform the sampling. 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:

| Mine<br>Size<br>(Emp.) | # of<br>Mines | Time to<br>Sample<br>Miners in one<br>Area (hrs.) | Average # of<br>Working Areas<br>to Sample | Inspector<br>Wage Rate<br>(hr.) | Annual<br>Costs to<br>Sample |
|------------------------|---------------|---------------------------------------------------|--------------------------------------------|---------------------------------|------------------------------|
| Small<br>(<20)         | 66            | 3                                                 | 1                                          | \$61.32                         | \$12,141                     |
| Large<br>(20 -<br>500) | 103           | 3                                                 | 2                                          | \$61.32                         | \$37,896                     |
| Large<br>(>500)        | 4             | 3                                                 | 2                                          | \$61.32                         | \$1,472                      |
| Total                  | 173           |                                                   |                                            |                                 | \$51,509                     |

 Table 32. Annual Costs for MSHA Inspectors to Take DPM Samples

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

| Mine<br>Size<br>(Emp.) | # of<br>Mines | Average # of<br>Working Areas<br>to Sample | # of Samples<br>Taken per<br>Working Area | Cost of<br>Filter per<br>Sample | Annual<br>Costs for<br>Filters. |
|------------------------|---------------|--------------------------------------------|-------------------------------------------|---------------------------------|---------------------------------|
| Small<br>(<20)         | 66            | 1                                          | 5                                         | \$35                            | \$11,550                        |
| Large<br>(20 -<br>500) | 103           | 2                                          | 5                                         | \$35                            | \$36,050                        |
| Large<br>(>500)        | 4             | 2                                          | 5                                         | \$35                            | \$1,400                         |
| Total                  | 173           |                                            |                                           |                                 | \$49,000                        |

Table 33. Cost of Filters for Sampling

It takes an employee earning about \$72.49 per hour (GS 13, 2012 wage rate including benefits) one hour to upload the results of about 20 samples to MSHA's database. It costs MSHA's laboratory in Pittsburgh \$75.00 per sample to analyze DPM samples. The costs to analyze the samples and upload the resultant data are as follows:

| Mine Size<br>(Emp.) | # of<br>Mines | Avg. # of<br>Areas<br>Sampled<br>Per Mine | Avg. # of<br>Samples<br>per Area | Total #<br>of<br>Samples | MSHA<br>Labor Cost<br>to Analyze<br>Sample | MSHA<br>Labor<br>Cost to<br>upload<br>DPM<br>data<br>(20<br>results | Total<br>Annual<br>Costs for<br>Analysis<br>and<br>Upload |
|---------------------|---------------|-------------------------------------------|----------------------------------|--------------------------|--------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------|
|                     |               |                                           |                                  |                          |                                            | per<br>hour)                                                        |                                                           |
| Small (<20)         | 66            | 1                                         | 3                                | 198                      | \$14,850                                   | \$718                                                               | \$15,568                                                  |
| Large (20 -<br>500) | 103           | 2                                         | 3                                | 618                      | \$46,350                                   | \$2,240                                                             | \$48,590                                                  |
| Large (>500)        | 4             | 2                                         | 3                                | 24                       | \$1,800                                    | \$87                                                                | \$1,887                                                   |
| Total               | 173           |                                           |                                  | 840                      | \$63,000                                   | \$3,045                                                             | \$66,045                                                  |

#### Total cost to the Federal Government \$ 166,554

### 15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I.

The calculated responses have been adjusted because the previous submission undercounted the number of responses. There was no significant change in number of respondents or burden hours, because these were correctly calculated in the previous submission. The costs increased because the estimated cost of maintaining respirators has increased.

Respondents from 173 to 173 (no change) Responses from 18,752 to 27,850 (increase of 9,098) Hours from 3,331 to 3,329 (decrease of 2) Costs from \$176,363 to \$509,532 (increase of \$333,169)

# 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, <u>www.MSHA.gov</u> 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 certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submissions," of OMB Form 83-I.

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.