

SUPPORTING STATEMENT

Health Standards for Diesel Particulate Matter Exposure (Underground Coal Mines)

30 C.F.R. §§ 75.1915/72.503, 72.510, 72.520 and Part 7 or Part 36 as a result of § 72.500

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), 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. In addition, Section 103(h) of the Mine Act mandates that mine operators keep any records and make any reports that are reasonably necessary for the Mine Safety and Health Administration to perform its duties under the Mine Act.

MSHA established standards and regulations for diesel-powered equipment in underground coal mines that provide additional important protection for coal miners who work on and around diesel-powered equipment. The standards were designed to reduce the risks to underground coal miners of serious health hazards that are associated with exposure to high concentrations of diesel particulate matter. The standards contain information collection requirements for underground coal mine operators in §§ 75.1915/72.503 (d), 72.510, 72.520, and as a result of §72.500, manufacturers of diesel equipment are affected under Part 7 or 36.

Section 75.1915(a) and (c) and §72.503(d). Section 72.503(d) requires that after-treatment devices installed on diesel-powered equipment must be maintained according to manufacturer specifications. Since these devices are not usually on diesel machinery, maintenance personnel have to be trained to maintain them. Section 75.1915(a) (persons required to perform maintenance on diesel-powered equipment must successfully complete a training and qualification program. Section 75.1915(c) requires the mine operator to maintain a copy of the required training and qualification

program and a record of the names of all qualified persons under the program.

Section 72.510(c) requires the training record to be maintained for a period of one year after completion of the training.

Section 72.510(a) requires underground coal mine operators to provide annual training to all miners who may be exposed to diesel emissions. The training must include health risks associated with exposure to diesel particulate matter; methods used in the mine to control diesel particulate concentrations; identification of the personnel responsible for maintaining those controls; and actions miners must take to ensure controls operate as intended.

Section 72.510(b) requires underground coal mine operators to keep a record of the training for one year.

Section 72.520(a) and (b) require underground coal mine operators to maintain an inventory of diesel powered equipment units, together with a list of information about any unit's emission control or filtration system. The list must be updated within 7 calendar days of any change.

Part 7, Part 36, and §72.503(d) As a result of §72.503(d) which requires all permissible equipment to have after-treatment or filtration devices, diesel manufacturers are required to amend existing diesel machine approval applications under Part 7 or Part 36. Few machine approvals are approved under Part 36, while most machine approvals are approved under Part 7.

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.

The information collection is provided to the MSHA inspector and used by the agency to monitor the mine operator's compliance with the health standard and to provide useful information to mine operators and miners' representatives about the affected standards.

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.

Mine operators have the option of providing this information via MSHA's web page or they may submit the information the documents to MSHA. MSHA has information available on-line to aid mine operators in maintaining and updating the required information. In addition, the MSHA standards afford the mine operator the flexibility to retain the information in whatever format/method they choose that reasonably conveys the required information.

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 at www.msha.gov, there are sites compliance materials and other information on diesel particulate.

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.

The information collection requirements are essential for helping to protect miners' health and safety while working in areas of the underground mine where diesel-powered equipment is being operated. The information also serves as a means of verifying compliance with the standards and also informs mine operators and miners' representatives of safety and health conditions in a miner's workplace. Reduction of these information collection requirements would increase the likelihood that unsafe and unhealthy conditions could go undetected and uncorrected in underground coal mines that use diesel-powered equipment.

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

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

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

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.

MSHA published a 60-day Federal Register notice on September 16, 2010 (Volume 75, No. 179, Page 56560 - 56561), No comments were received.

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.

There is no assurance of confidentiality provided to respondents.

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

There are no questions of a sensitive nature.

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

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens 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.**

Shown are the burden hours and related costs that are borne by affected: (1) underground coal mine operators that use diesel-powered equipment, and (2) manufacturers of diesel-powered equipment.

The following hourly wage rates based on data from the U.S. Coal Mineral Mine Salaries, Wages and Benefits Survey Results, were used to determine burden hour costs: supervisor wage rate of \$84.70, coal miner wage rate of \$35.30, and clerical worker wage rate of \$26.00.

Mine Operators

Burden Hours

There are approximately 165 respondents impacted by this collection of information. Approximately 162 mine operators will incur an estimated 563 annual burden hours and related costs of \$15,661 and approximately 3 manufacturers an estimated 60 annual burden hours and related costs of \$3,900. The breakdown is as follows:

Paperwork Burden for Mine Operators

Section 72.503 Determination of Emission; filter Maintenance

Section 72.503(d) requires that after treatment devices installed on diesel powered equipment be maintained according to manufactures specifications. Since such devices are not usually on diesel machinery, maintenance personnel will need to be trained concerning the maintenance of such devices. §75.1915 (training and qualifications of persons working on diesel powered equipment) requires training in the maintenance of diesel powered equipment, and §75.1915(c) requires a record of those trained.

MSHA estimates that there are approximately 400 maintenance personnel working on diesel machines and that the turnover rate is 7 percent.

Therefore, 428 people

(i.e., 400×1.07) would be trained annually. MSHA allows that each new maintenance person would be trained at their separate mines. It takes a clerical person earning \$26.00 per hour 0.2723 hours to register each miner and to prepare and create the training record.

$428 \text{ persons} \times 0.2723 \text{ hours per person} = 116.5 \text{ burden hours}$

$116.5 \text{ hours} \times 26.00 \text{ per hour} = \$3,029.00$

Section 72.510 Miner Health Training

This section requires that all miners who can reasonably be expected to be exposed to diesel emissions on mine property be trained annually in accordance with §72.510(a). Training will occur at 162 mines and 20,219 miners will be trained.

A supervisor earning \$84.70 per hour will take 5 minutes (0.0833 hours) to instruct a clerical worker concerning the training. A clerical worker earning \$26.00 per hour will take 15 minutes (0.25 hours) in each mine (includes listening to supervisor's instructions) to make arrangements concerning the required training. In addition, the clerical worker will take 1 minute (0.0167 hours) to record each trainee in a computer file. Each trainee earning \$35.30 per hour will take 20 seconds (0.0056 hours) to sign a registration sheet, which will also serve as a record.

Burden hours

Supervisors instruct clerical workers at 162 mines x 0.08333 hours per mine
= 13.5 hours

Clerical prep at 162 mines x 0.25 hours per mine = 40.5 hours

Registration of 20,219 miners x 0.0167 hours per miner = 337.5 hours

20,219 miners signing x 0.0056 hours per miner = 113.2 hours

Costs

13.5 Supervisor Hours at \$84.70 per hour = \$1,143.45

378.0 Clerical Hours x \$26 per hour = \$9,828.00

113.2 Trainee Hours x \$35.30 per hour = \$3,995.96

Section 72.520 Diesel Equipment Inventory Annual Burden

Section 72.520 requires underground coal mine operators to maintain a list of diesel powered equipment units, together with information about any unit's emission control or filtration system. This list must be updated within 7 days of any change.

Mine operators can obtain general information on approved engines from manufacturers or MSHA (via MSHA's website). Annually, it will take a mine supervisor earning \$84.70 per hour about 2 minutes (0.0333 hours) to perform this task for each change that is required. Each year, it is estimated that changes will be required for 312 diesel machines.

312 changes x 0.0333 hours per change = 10.4 hours
10.4 hours x \$84.70 per hour = \$880.88

Section 72.520 Diesel Equipment Inventory - continued

Annual Burden

In addition, mine operators can obtain machine-specific information (e.g. serial numbers) from maintenance files or similar records. Collecting and recording this information will take a miner earning \$35.30 per hour an average of 2 minutes (0.03333 hours) per machine. Annually, 413 diesel machine will have these changes.

413 changes x 0.0333 hours per change = 13.8 hours
13.8 hours x \$35.30 per hour = \$487.14

Section 72.520 Diesel Equipment Inventory - continued

Annual Burden

The mine operator must transmit electronically or send a copy of the diesel inventory list to the appropriate MSHA District Manager and provide a copy to the miner representative.

For each paper change, a clerical worker must copy the list, send the list to the District Manager, and provide a copy to the miner's representative. It will take a clerical worker earning \$26.00 per hour 5 minutes (0.0833 hours) per machine to perform these functions.

413 machines x 0.0833 hours per machine = 34.4 burden hours
34.4 hours x \$26.00 per hour = \$894.40

Paperwork Burden for Manufacturers

As a result of §72.500, which requires all permissible equipment to have filtration devices, manufacturers need to amend some existing permissible

machine approvals. In most cases, the application and evaluation will be a simple process.

The number of approvals affected will be 3 per year. MSHA estimates that it will take 20 hours to prepare an evaluation. Manufacturers' costs to amend an existing application are estimated at \$65 per hour.

3 evaluations x 20 hours per evaluation = 60 burden hours
60 hours x \$65 per hour = \$3,900

SUMMARY TABLES:

Table 1: Mine Operators – Annual Burden Hours

Provision	Burden Hours	Costs
72.510	504.7	\$14,967.41
75.1915/72.503	116.5	\$3,029.00
72.520	58.6	\$2,262.42
Total	680 (rounded)	\$20,258.83

Table 2: Manufacturers' - Annual Burden Hours

Detail	Burden Hours	Costs
Amend Applications	60	\$3,900

TOTAL BURDEN HOURS: 740

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 that costs will be

incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.

If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.

Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.

Section 72.520

Annual Burden

Underground coal mine operators that use diesel powered equipment will need to update their list of diesel equipment and make a copy of this updated list and send it to the appropriate MSHA District Manager. Also a copy will need to be made of the updated list and given to the representative of the miners. On average, the updated initial list is estimated to be 2 pages for each mine. The list is updated each time a change is made to the diesel equipment inventory. On average, 413 changes are estimated to occur annually. The cost per change is estimated to be \$1.03; \$0.60 for copying ($\$0.15 \times 2 \text{ pgs.} \times 2 \text{ copies}$) and \$0.43 for postage to mail a copy of the list to the appropriate MSHA District Manager. $413 \text{ changes} \times \$1.03 \text{ per change} = \425.39

December 2010

Paperwork Burden to Manufacturers

As a result of §72.500, which requires all permissible equipment to have filtration devices, manufacturers will need to amend some existing permissible machine approvals. However, manufacturers will have to pay for the cost for tests that are needed to amend the existing applications. For the 3 applications that need to be amended, the costs for tests are estimated to be \$2,000 per application.

3 applications x \$2,000 per application = \$6,000

TOTAL ANNUAL BURDEN COST: \$6,425.39

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.

Section 72.500(a), which requires all permissible equipment to have after-treatment or filtration devices, manufacturers would need to amend existing permissible machine approvals granted under Part 36. There are 3 diesel power packages applications that are estimated to be amended by manufacturers. It will take MSHA 24 hours to approve each application. The average MSHA rate is about \$70 per hour.

3 existing diesel power package applications
x 24 hrs. x \$70 per hr. = \$5,040

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

While there have been no program changes, the methodology for estimating respondent burden has been revised to count each individual transaction (e.g., the name of each person who has undergone training, registration of each piece of equipment) under this ICR as a response. The last submission assumed an average of 2.5 responses per respondent.

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 the beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

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

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

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

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

The collection of this information does not employ statistical methods.