

## SUPPORTING STATEMENT

30 CFR §§56.3203(a), 57.3203(a), and 75.204(a) Safety Standards for Roof Bolts in Metal and Nonmetal Mines and Underground Coal Mines

### 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.**

Accidents involving falls of roof, face, and rib in underground mines or falls of highwall in surface mines, historically, have been among the leading causes of injuries and deaths. Prevention or control of falls of roof, face, and rib is uniquely difficult because of the variety of conditions encountered in mines that can affect the stability of various types of strata and the changing nature of the forces affecting ground stability at any given operation at any given time. Roof and rock bolts and accessories are an integral part of ground control systems and are used to prevent the fall of roof, face, and rib. Advancements in technology of roof and rock bolts and accessories have aided in reducing the hazards associated with falls of roof, face, and rib.

The American Society for Testing and Materials (ASTM) publication "Standard Specification for Roof and Rock Bolts and Accessories" is a consensus standard used throughout the United States. It contains specifications for the chemical, mechanical, and dimensional requirements for roof and rock bolts and accessories used for ground support systems. The ASTM standard for roof and rock bolts and accessories is updated periodically to reflect advances in technology. The Mine Safety and Health Administration (MSHA) published a final rule on April 28, 1998, replacing the references to outdated ASTM F432-83 and ASTM F432-88 with a new reference to ASTM F432-95.

Title 30 Code of Federal Regulations (30 CFR), Parts 56 and 57 Subpart B-Ground Control, §56.3203 and §57.3203, and Part 75 Subpart C-Roof Support, §75.204, address the quality of roof and rock bolts and accessories and their installation. MSHA's objective in these regulations is to ensure the quality and effectiveness of roof and rock bolts and accessories and, as technology evolves, to allow for the use of new materials which are proven to be reliable and effective in controlling the mine roof, face, and rib.

30 CFR §§56.3203(a), 57.3203(a), and 75.204(a) require: (1) that mine operators obtain a certification from the manufacturer that roof and rock bolts and accessories are manufactured and tested in accordance with the applicable ASTM specifications, and (2) that the manufacturer's certification is made available to an Authorized Representative of the Secretary of Labor (Secretary). MSHA has found that the certification requirement has been successful in maintaining compliance with requirements for roof and rock bolts and accessories. Collections of such information are authorized under Section 103(h) of the Federal Mine Safety and Health Act of 1977 (Mine Act).

**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 manufacturer's certification assures mine operators that the material they use meets technical requirements established to promote safety and eliminates the concern that mine operators need to have the same engineering knowledge of the ASTM standard as manufacturers. The certifications also are made available to an Authorized Representative of the Secretary to attest to the appropriate testing and manufacture of the rock bolts and accessories.

**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 improved information technology has been identified that would reduce the burden.

**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. The certifications are a result of the purchase of roof or rock bolts and accessories from a specific manufacturer by the mine operator. Whereas a single mine operator may collect unique certification statements from each roof and rock bolt manufacturer, the manufacturers are able to use the same certification statement for all mine operators purchasing their products.

**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 does not have a significant impact on small businesses or other small entities. However, MSHA has made available on our web-site various sources of information, such as "Technical Assistance," "Best Practices," and an "Accident Prevention" site. To assist with compliance, these provide tips and general information on a number of various topics.

**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 believes that these information collection requirements are the minimum necessary to ensure that mine roof, face, and rib are adequately supported and that ground control systems are effective. Reduction in these requirements may result in unsafe conditions developing in the mine, thus jeopardizing miners. Section 101(a)(9) of the Mine Act forbids the Agency to reduce the protection given miners by any existing regulation.

MSHA's existing regulations require mine operators to obtain a certification from the manufacturer that rock bolts and accessories are manufactured and tested in accordance with the applicable ASTM standard or, as an alternative for roof and rock bolts and accessories not addressed in the ASTM standard, to show that they have been successful in supporting the roof, face, or rib under similar ground strata, dimensions, and stresses.

**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.

The information collection is consistent with the requirements in 5 CFR 1320.5.

**8. If applicable, provide a copy and identify the data and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

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

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years -- even if the collection of information activity is the same as in prior periods. There may be

**circumstances that may preclude consultation in a specific situation. These circumstances should be explained.**

MSHA published a 60-day preclearance Federal Register notice on March 3, 2009 (Vol 74, Number 40, pages 9292-9293), soliciting public comments regarding the extension of this information collection. One comment was received from ASTM International. The comment relates to an ASTM cite in the regulation, and does not comment on the paperwork burden or the extension of this collection of information.

**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.**

30 CFR §§56.3203(a)(1), 57.3203(a)(1), and 75.204(a)(1) require mine operators to obtain a manufacturer's certification that the material was manufactured and tested in accordance with the specifications of ASTM.

In general, the manufacturers of roof and rock bolts and accessories provide certification documents with each shipment of those items to mine operators or to vendors of their products. In some instances the certifications may be packed in the shipment; in other instances, the certification documents may be sent with the billing or as a separate communications to the purchaser. In most, if not all cases, the manufacturer's certifications are not signed. Therefore, the burden experienced in acquiring certification documents is minimal.

Similarly, the certification documents are required to be available for examination by Authorized Representatives of the Secretary and representative of miners. They are usually only reviewed when a new appliance is being introduced into the mine or an anomalous condition is observed which raises questions about the design of the appliance in use. As a consequence, the number of instances (responses) for receiving and filing certification documents and the number of instances those documents are examined by MSHA inspectors or miners representatives will vary greatly with the size of the mine and the rate at which the appliances are consumed and repurchased. MSHA has provided estimates of the number of responses consistent with and for each of the mine types and standards.

Complete inspections are required under § 103(a) of the Mine Act four times per year for underground mines and two times per year for surface mines. MSHA estimates that it takes about three minutes (0.05 hour) to obtain, file, and show a certification form. The hourly wage for a supervisor is about \$62.84 per hour in metal and nonmetal (MNM) mines and \$85.14 per hour in coal mines (based on figures from the U.S. Coal Mine and Metal and Mineral Industrial Mine Salaries, Wages, & Benefits Survey Results, 2007).

#### **MNM Surface Mines**

MSHA estimates that about 20 metal and nonmetal surface mines obtain two certifications annually. In addition, mine operators show these certifications to Authorized Representatives twice a year.

#### Time to obtain certification, file certification, and show certification to Authorized Representative

$$20 \text{ mines} \times 2 \text{ times a year} \times 0.05 \text{ hour/mine} = 2 \text{ hours}$$

#### Cost to obtain certification, file certification, and show certification to Authorized Representative

$$2 \text{ hours} \times \$62.84 / \text{hour} = \$126$$

#### Metal and nonmetal Underground Mines

MSHA estimates that about 200 metal and nonmetal underground mines obtain four certifications annually and that they show these certifications to Authorized Representatives four times per year.

Time to obtain certification, file certification, and show certification to Authorized Representative

$$200 \text{ mines} \times 4 \text{ times/yr} \times 0.05 \text{ hour/mine} = 40 \text{ hours}$$

Cost to obtain certification, file certification, and show certification to Authorized Representative

$$40 \text{ hours} \times \$62.84 / \text{hour} = \$2,514$$

**Coal Underground Mines**

MSHA estimates that in 2007 about 613 underground coal mines obtained four certifications annually and that they showed these certifications to Authorized Representatives four times per year.

Time to obtain certification, file certification, and show certification to Authorized Representative

$$613 \text{ mines} \times 4 \text{ times/yr} \times 0.05 \text{ hour/mine} = 123 \text{ hours}$$

Cost to obtain certification, file certification, and show certification to Authorized Representative

$$123 \text{ hours} \times \$85.14 = \$10,472$$

Mine Type	Respondents	Responses	Hours per Response	Hours	Total Cost
M/NM Surface	20	40	0.05	2	\$126
M/NM Underground	200	800	0.05	40	\$2,514
Coal Underground	613	2,452	0.05	123	\$10,472
<b>TOTAL</b>	<b>833</b>	<b>3,292</b>		<b>165</b>	<b>\$13,112</b>

**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 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.

MSHA does not anticipate that there will be any costs associated with this information collection other than those designated under number 12 above.

**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.**

The inspecting of roof and rock bolts is just one aspect of a mine inspection. Complete inspections are required under § 103(a) of the Mine Act four times per year for underground mines and two times per year for surface mines. The review of the manufacturer's certification is estimated to take about 3 minutes (0.05 hour) per mine per inspection. The average grade and salary of an inspector is GS 12/5 at \$32.25 per hour (2009 wages unadjusted for locality pay).

The recurring cost to the Federal Government is estimated to be:

**MNM Surface Mines**

20 mines x 2 inspections/year x 0.05  
hour/inspection x \$32.25 /hour \$ 65

**MNM Underground Mines**

200 mines x 4 inspection/year x 0.05  
hour/inspection x \$32.25 /hour \$1,290

**Coal Underground Mines**

634 mines x 4 inspection/year x 0.05  
hour/inspection x \$32.25/hour = \$4,096

Total Costs for Federal Mine Inspectors = \$5,451

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

There is a slight decrease in all responses (from 3,376 to 3,292), respondents (from 854 to 833) and hours (from 169 to 165). The decrease was due to a slight decrease in the number of underground coal mines (from 634 to 613) , while the number of MNM mines remained at 220, for a total of 833 mines using roof bolts. The burden cost remains at \$0.

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

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

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

There are no forms associated with this information collection.

**18. Explain each exception to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submission," of OMB 83-I.**

There are no certification exceptions identified with this information collection.



## **B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS**

**1. Describe (including numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.**

As statistical analysis is not required by the regulation, questions 1 through 5 do not apply.

**2. Describe the procedures for the collection of information including:**

- **Statistical methodology for stratification and sample selection,**
- **Estimation procedure,**
- **Degree of accuracy needed for the purpose described in the justification,**
- **Unusual problems requiring specialized sampling procedures, and**
- **Any use of periodic (less frequently than annual) data collection cycles to reduce burden.**

**3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.**

**4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.**

**5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

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

**An Act**

*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".*

**INSPECTIONS, INVESTIGATIONS, AND RECORDKEEPING**

SEC. 103. . (h) In addition to such records as are specifically required by this Act, every operator of a coal or other mine shall establish and maintain such records, make such reports, and provide such information, as the Secretary or the Secretary of Health, Education, and Welfare may reasonably require from time to time to enable him to perform his functions under this Act. The Secretary or the Secretary of Health, Education, and Welfare is authorized to compile, analyze, and publish, either in summary or detailed form, such reports or information so obtained. Except to the extent otherwise specifically provided by this Act, all records, information, reports, findings, citations, notices, orders, or decisions required or issued pursuant to or under this Act may be published from time to time, may be released to any interested person, and shall be made available for public inspection.