**SUPPORTING STATEMENT**

**Information Collection Title:** Testing, Evaluation, and Approval of Mining Products, 30 CFR Subchapter B - Parts 6 through 36

**Collection Instrument(s):** MSHA Form 2000-38, Electrically Operated Mining Equipment U.S. Department of Labor Field Approval Application (Coal Operator)

**Provisions:**

Part 6 (Section 6.10(a), (d)) Testing and Evaluation by Independent Laboratories and Non-MSHA Product Safety Standards

Part 7 Testing by Applicant or Third Party:

Subpart A (Sections 7.3, 7.4, 7.6, 7.7) General

Subpart B (Sections 7.23, 7.27, 7.28) Brattice Cloth and Ventilation Tubing

Subpart C (Sections 7.43, 7.46, 7.47, Battery Assemblies

7.48, 7.49, 7.51)

Subpart D (Sections 7.63, 7.69, 7.71) Multiple-Shot Blasting Units

Subpart E (Sections 7.83, 7.90) Diesel Engines Intended for Use in Underground Coal Mines

Subpart F (Sections 7.97, 7.105, 7.108) Diesel Power Packages Intended for Use in Areas of Underground Coal Mines Where Permissible Electric Equipment is Required

Subpart J (Sections 7.303, 7.306, Electric Motor Assemblies

7.309, 7.311)

Subpart K (Sections 7.403, 7.407, 7.408, Electric Cables, Signaling Cables, and 7.409, 7.411) Cable Splice Kits

Subpart L (Section 7.503) Refuge Alternatives

Part 14 (Section 14.4) Requirements for the Approval of Flame-Resistant Conveyor Belts

Part 15 (Sections 15.4, 15.8) Requirements for Approval of Explosives and Sheathed Explosive Units

Part 18 (Sections 18.6, 18.15, 18.53(h), Electrical Motor Driven Mine

18.81, 18.82, 18.93, 18.94) Equipment and Accessories

Part 19 (Sections 19.3, 19.13) Electric Cap Lamps

Part 20 (Sections 20.3, 20.14) Electric Mine Lamps Other

Than Standard Cap Lamps

Part 22 (Sections 22.4, 22.8, 22.11) Portable Methane Detectors

Part 23 (Sections 23.3, 23.7, 23.10, 23.12, Telephones and Signaling Devices

23.14)

Part 27 (Sections 27.4, 27.6, 27.11) Methane-Monitoring Systems

Part 28 (Sections 28.10, 28.23, 28.25, Fuses for Use with Direct Current in

28.30, 28.31) Providing Short-Circuit Protection for Trailing Cables in Coal Mines

Part 33 (Sections 33.6, 33.12) Dust Collectors for Use In

Connection with Rock

Drilling In Coal Mines

Part 35 (Sections 35.6, 35.10, 35.12) Fire-Resistant Hydraulic Fluids

Part 36 (Sections 36.6, 36.12) Approval Requirements for

Permissible Mobile Diesel-Powered

Transportation Equipment

**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 authorizing the collection of information.**

Section 103(h) of the Federal Mine Safety and Health Act of 1977 (Mine Act), 30 U.S.C. 813(h), authorizes the Mine Safety and Health Administration (MSHA) to collect information necessary to carry out its duty in protecting the safety and health of miners. Further, section 101(a) of the Mine Act, 30 U.S.C. 811, authorizes the Secretary of Labor (Secretary) to develop, promulgate, and revise as may be appropriate, improved mandatory health or safety standards for the protection of life and prevention of injuries in coal or other mines.

Under section 508 of the Mine Act, MSHA is authorized to regulate mining equipment or other products necessary for use in mines to protect the safety and health of miners. For example, section 305(a)(1) requires that all junction or distribution boxes, handheld electric drills, blower and exhaust fans, and other electrical equipment used at the face of an underground gassy mine shall be "permissible."

Sections 318(c) and 318(i) of the Mine Act define "permissible" to mean explosives or equipment including electrically operated, whether used at the face or not, in which the Secretary requires an approval plate, label, or other device to be attached. For this approval, the equipment must meet the Secretary's specifications for construction, maintenance, design, or other specifications as prescribed by MSHA to assure that the equipment will not cause a mine explosion or a mine fire. Explosives also must meet MSHA specifications. MSHA also may prescribe the use of explosives and equipment in this approval.

In addition, section 101(a)(7) of the Mine Act requires MSHA to prescribe the use of labels or other necessary forms to provide miners information that will protect their safety and health.

The mining products that MSHA approves range from extremely small electronic devices to very large complex mining systems. The Agency's approval regulations are contained in 30 CFR parts 6, 7, 14, 15, 18, 19, 20, 22, 23, 27, 28, 33, 35, and 36. MSHA evaluates and tests these mining products and issues approvals, certifications, or acceptances. An approval is issued to a completely assembled machine or system, or to an explosive. A certification is issued to a component or subsystem of a completely assembled machine or system. An acceptance is issued for materials and certain other products.

An approval of a mining product constitutes a license authorizing the approval-holder to build as approved and to distribute the product for use in underground mines, to display an MSHA marking with an approval number, and to advertise the product as "MSHA-approved." The approval-holder accepts the responsibility for constructing or formulating the product in exact accordance with drawings, specifications, and use that accompanies the approval letter.

In this justification statement, “approval” will be used to represent MSHA granting an approval, certification, or acceptance because the general application processes are similar.

MSHA regulations at 30 CFR parts 6 through 36 contain application, testing and inspection procedures, and quality control procedures for the approval of mining equipment or explosives used in both underground and surface coal, metal, and nonmetal mines. Except for parts 6 and 7, MSHA conducts most of the testing and evaluation of products for a fee paid by the applicant; however, some regulations require the manufacturer to pretest the product. Upon MSHA approval, the manufacturer must ensure that the product continues to conform to the specifications and design evaluated and approved by MSHA. In some instances, as part of the approval process, manufacturers are required to have a quality control or assurance plan.

In addition, some parts provide for product and manufacturing audits as well as the reporting of problems with products approved.

Title 30 CFR 14.4, 15.4, 18.6, 18.81, 18.82, 18.93, 18.94, 19.3, 19.10, 20.3, 20.11, 22.4, 22.8, 23.3, 23.10, 27.4, 27.6, 28.10, 33.6, 35.6, and 36.6 require applicants seeking product approval to submit an application that includes all the specifications, drawings, and other information needed for the approval. This information is crucial for MSHA to evaluate, test, and possibly approve products that do not cause a fire or explosion risk in a mine.

Some products have separate requirements for applications for extensions of approvals to cover proposed changes: sections 18.15, 19.13, 20.14, 22.11, 23.14, 27.11, 28.25, 33.12, 35.12, and 36.12. For extensions of approvals, the applicant is not required to resubmit documentation that is duplicative or was previously submitted for the approval. Only information related to changes in the previously approved product is required, avoiding unnecessary paperwork.

An extension of approval is required for minor changes to the approvals. If manufacturers make design changes to approved products, they must submit a new application. MSHA realized that this may duplicate past efforts by manufacturers and MSHA; therefore, MSHA created the Revised Approval Modification Program (RAMP) Application Procedure. RAMP instructs approval-holders how to apply for MSHA acceptance of proposed changes to the design of their approved product.

For the approval of explosives and fuses, MSHA requires an applicant, once approved, to have a quality assurance or control plan. Under section15.8(b), MSHA requires the approval holder to report any knowledge of explosives distributed that do not meet the specifications of the approval. Under sections 28.10(d), 28.30, and 28.31, MSHA requires the applicant to submit a quality control plan for approval to assure that each fuse is manufactured to have the short-circuit protection as required by the approval. A quality assurance or quality control plan for approved products provides substantial protection against the distribution of defective products which could harm miners' safety and health. The reporting of a defective product to MSHA would come from the approval-holder's internal audits, reports from users, or other sources, and further enhances the safety of miners because MSHA would work with the approval-holder to take corrective action.

For high-voltage longwall mining systems, section18.53(h) requires an applicant to submit an "available fault current" study to MSHA to justify circuit breaker settings to provide protection for the size and length of the longwall motor, shearer, and trailing cables used. Proper electrical protection is essential in preventing a fire, explosion, or shock hazard resulting from inadequate sizing of electrical cables.

For certain products which are dependent on proper use and maintenance, MSHA requires the manufacturers to provide additional information on the approval marking or instructions to be included with the product. Under sections 23.7(e), 23.12(a)(2), 28.23, and 35.10, MSHA requires this additional information for the proper use of telephone and signaling systems, fuses, and hydraulic fluids.

Title 30 CFR parts 6 and 7 allow other parties to perform product testing under certain circumstances. MSHA retains the responsibility for evaluating the test results and issuing the approval for all products tested under parts 6 and 7.

Part 6 permits authorized independent laboratories to perform in whole or in part the necessary testing and/or evaluation for MSHA product approval. Thus, 30 CFR Part 6 increases the availability of mining products with enhanced safety features by reducing costs and broadening the market for mining equipment.

MSHA will accept testing and evaluation performed by an independent laboratory for purposes of MSHA product approval provided that MSHA receives as part of the application (section 6.10(a)(1) through (a)(4)) the following information:

• “Written evidence of the laboratory’s independence and current recognition by a laboratory accrediting organization;”

• “Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;”

• “Identification of components or features of the product that are critical to the safety of the product;” and

• “All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant… .”

This information is completed by the independent laboratory and supplied to the applicant, who sends it to MSHA as part of its application. The information requested above is needed because MSHA is no longer performing all the tests and evaluations associated with the approval application. It is important to know that the laboratory has the independence to ensure the objectivity and accuracy of any testing and evaluation performed. It is also crucial that the laboratory be recognized by a laboratory accrediting organization to ensure the laboratory has the competence, resources, and personnel capable of performing the necessary testing and evaluation. In addition, the information in the above paragraphs is needed to determine if the product complies with the applicable approval requirements.

Certain test and evaluation requirements in product safety standards used by independent laboratories are similar to MSHA’s current approval requirements. Applicants routinely have such tests and evaluations performed by an independent laboratory when seeking a non-MSHA approval or listing. Some applicants, before requesting an MSHA product approval either based on MSHA’s approval requirements or non-MSHA product safety standards that are equivalent to MSHA’s approval requirements, may already have had an independent laboratory perform some portion of the tests and evaluations that are also needed to obtain an MSHA product approval. It is with regard to these test and evaluation results that MSHA requires the data requested in paragraphs (a)(1) through (a)(3) of section 6.10. The costs of the tests and evaluations performed by an independent laboratory have already occurred before the applicant files an MSHA product approval application. Therefore, the only costs to applicants associated with section 6.10(a)(1) through (a)(3) are those related to the applicant passing the required information received from the independent laboratory to MSHA.

If an independent laboratory conducts any additional or repeat testing, then the applicant is required to send the test results to MSHA. This is true even if MSHA observes the testing performed by the independent laboratory. However, if MSHA performs additional or repeat testing itself, then it is not necessary for the applicant to send in the independent laboratory’s test results to MSHA. Sending additional or repeat testing results to MSHA is covered under section 6.10(d). Information concerning section 6.10(a)(1) through (a)(3) that was sent to MSHA with the original approval application does not have to be sent again as a result of any additional or repeat testing.

No approvals are issued under Part 6. Instead, any approval issued based on Part 6 provisions continue to be approved under the applicable MSHA-product approval parts (30 CFR parts 7 through 36). The burden costs included as Part 6 are the additional costs not associated with applications under parts 7 through 36. Only in section 6.10(a)(4) are burden costs associated with the other application packages.

**Part 7:**

Part 7 provides procedures for approved products to be tested by the applicant or a third party. Applicants are required to maintain records of test results and procedures used in testing for three years after completion of testing. Applicants must also maintain records of the distribution of each product bearing an approval marking.

MSHA retains the authority to conduct post-approval audits of approved products for the purpose of determining conformity with the technical requirements upon which the approval was based.

The general requirements for the Part 7 approval process are in Subpart A and the technical requirements for the design and performance of particular products are in subsequent subparts. Section 7.3 provides the general procedures and requirements an applicant is required to meet for MSHA approval of a product. The application procedures apply to the original application, an application for similar products, and an extension of approval. The technical documents required for different products is specified in sections 7.23, 7.43, 7.63, 7.83, 7.97, 7.303, 7.403, and 7.503.

Under sections 7.4, 7.27(a)(8), 7.28(a)(7), 7.46(a)(3), 7.47(a)(6), 7.48(a)(3), 7.407(a)(11)-(a)(12), and 7.408(a)(7)-(a)(8), records of test results and procedures must be retained for three years. Retaining these records for three years will assist MSHA in determining the possible cause of any problems which may be detected during post-approval product audits.

Under section 7.6, applicants are required to maintain records on the distribution of each unit with an approval marking. This is necessary so that deficient products which may present a hazard to miners can be traced and withdrawn from use until the appropriate corrective action may be taken.

Under section 7.7(d), MSHA requires applicants to report to MSHA any knowledge of a product distributed that is not in accord with the approval.

Sections 7.51, 7.71, 7.108, and 7.311 require the applicant to include an approval checklist with each product sold. These checklists are important because they include a description of what is necessary for users to maintain products in approved condition.

Under sections 7.69(c), (e), and (f), 7.90, 7.105, 7.306(d), 7.309, and 7.409, MSHA requires that additional information for the proper use and maintenance be provided. Certain products require more information for proper use and maintenance; therefore, MSHA requires the manufacturers to provide additional information on the approval marking or instructions to be included with the product.

Section 75.1732(a) requires mine operators to equip continuous mining machines with proximity detection systems and provide miners with miner-wearable components. Proximity detection systems must be approved by MSHA under 30 CFR part 18.

**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.**

Under 30 CFR parts 6 through 36, MSHA investigates and, when applicable, tests all equipment or explosives for which manufacturers submit an application with the prescribed drawings and specifications for approval of equipment or explosives to be used in mines.

MSHA engineers and scientists use this information to evaluate the design, construction, manufacture, quality control, and other requirements to protect the safety and health of miners prior to approval for use in mines.

Machines equipped with proximity detection systems must be approved by MSHA as permissible equipment under 30 CFR part 18 to help assure the equipment does not present an ignition hazard to miners.

**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.**

MSHA has conducted workshops with the National Mining Association (NMA) to support fillable form applications for testing and approval of permissible equipment. The Agency has also developed step-by-step guidance for completing applications for nonmembers as well as members of the NMA. MSHA has developed and promoted a one-stop-shop at <http://www.msha.gov/TECHSUPP/ACC/ACCHOME.HTM>

Mine operators and manufacturers are able to receive guidance, submit applications and other correspondence, comments, or information electronically. Approval applicants are able to upload engineering drawings (images) and files directly to the Arlington FTP (File Transfer Protocol) site server or via the IPSO@dol.gov email account. There is an insignificant reduction of burden hours due to the electronic submission of applications since applicants have been electronically submitting applications to MSHA for over 10 years. Out of the 354 applications received at MSHA in Fiscal Year (FY) 2016, 314 of those were electronically submitted.

**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.**

The applications, consisting of design specifications and drawings and related correspondence, are usually unique for each piece of equipment or product and any change in circuitry or component may result in an unsafe condition. Therefore, any similar information already available cannot be used to evaluate and approve another instrument, machine, electric face equipment, non-electric face equipment or product used in mine operations.

MSHA is the only entity in the country authorized to approve equipment and certain products for use in mines. Therefore, it is unlikely that there would be duplication because of this unique function.

When MSHA permits third parties or manufacturers to test the equipment or products, MSHA retains the responsibility for evaluating the test results and issuing the approval for all products tested under Parts 6 and 7.

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

The standards apply to all manufacturers of mining equipment regardless of size. In order to determine if the device or equipment meets the standards, MSHA needs the same information from all manufacturers. While this information collection does not have a significant impact on a substantial number of small entities, MSHA has taken several steps to reduce burden for all respondents. These include development of Form MSHA-2000-38 that guides applicants to obtain approval for field electrical modifications to permissible equipment, and allowing responses to be submitted by email and fax.

**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.**

It is important to emphasize that MSHA-approved products for use underground are designed to meet technical requirements so they do not cause a fire or explosion or other safety hazard related to use.

If the information collections discussed in question 1 were not conducted, the consequences would be severe. The integrity of MSHA’s product approvals would be adversely affected and unsafe products could be introduced into the mines. Once a product is approved, the approval-holder is authorized to place an MSHA approval marking on the product which identifies it as approved for use in a mine. Use of the marking obligates the manufacturer to maintain the quality of the product as approved. The MSHA marking indicates to the mining community that the product meets the technical requirements and has been manufactured according to the drawings and specifications approved. If MSHA were unable to obtain from approval-holders products for audit and information regarding product defects, it would hamper efforts to enforce manufacturers’ obligation to maintain quality assurance of their products. Moreover, it would be difficult to effectively assure the mining community that products required to be approved for use are in fact safe for use. Without this information, MSHA would not be able to protect the safety and health of miners, the primary purpose of the Mine Act.

**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.**

There are no special circumstances that require the collection to be conducted in a manner inconsistent with 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 Federal Register notice on November 17, 2017 (82 FR 54419). MSHA received one public comment in support of the continued use of the collection.

**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.**

MSHA considers information submitted as part of applications for product approval, especially information regarding a product’s specifications and performance, as proprietary. Manufacturers' applications, drawings, and specifications kept at MSHA are stored electronically or in a restricted records storage area both accessible only to supervisors and employees responsible for handling these records. These methods safeguard proprietary information against violations of 18 U.S.C.1905, 5 U.S.C.552(b)(4), and the confidentiality provisions of 30 CFR parts 6 through 36. MSHA maintains a high level of security. Access to each building is restricted and controlled with electronic security gates. A guardhouse is located on the property and all visitors entering the buildings are required to wear badges that are easily visible on a person's outer clothing. These badges identify persons as visitors to these facilities, which facilitate control within secure areas. Employees are issued a security gate access card and a Department of Labor identification card is required to be shown to security guards upon request.

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

There are no questions of a sensitive nature.

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

**· Indicate the number of respondents, frequency of response, annual hour**

**burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**

**· If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**

**· Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 13.**

The following calculations for the existing requirements are based on the actual number of applications received during FY 2016 and the hours per response that represent the estimated time required by the manufacturer to prepare and submit applications, which may include drawings and specifications, for approval and certification of their products. In this information collection request, instances where MSHA did not receive any applications, an estimate of one application is used.

MSHA used two wage rates to calculate the cost of the burden hours. The rates reflect average wage rates in the “Goods Producing Industries” for the closest Standard Occupational Categories (SOC) as reported in the Bureau of Labor’s Occupational Employment Statistics (OES), May 2016[[1]](#footnote-2), adjusted for benefits[[2]](#footnote-3) and inflation[[3]](#footnote-4). Rate details appear at the first use of the clerical and engineer rates.

**PART 6: Testing and Evaluation by Independent Laboratories and Non-MSHA Product Safety Standards**

Under section 6.10(a)(1), applicants are required to provide “written evidence of the laboratory’s independence and current recognition by a laboratory accrediting organization.”

Paragraph (a)(2) requires “a complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements.” Paragraph (a)(3) requires “identification of components or features of the product that are critical to the safety of the product.” The information in paragraphs (a)(1) through (a)(3) will be completed by the independent laboratory and supplied to the applicant, who will then send it to MSHA.

Certain test and evaluation requirements required under non-MSHA product safety standards used by independent laboratories are similar to MSHA’s current approval requirements. Applicants routinely have such tests and evaluations performed by an independent laboratory when seeking a non-MSHA approval or listing. Generally, before requesting an MSHA product approval either based on MSHA’s approval requirements or non-MSHA product safety standards that are equivalent to MSHA’s approval requirements, applicants will already have had an independent laboratory perform some portion of the tests and evaluations that are also needed to obtain an MSHA product approval. It is with regard to these test and evaluation results that MSHA will require the data requested in paragraphs (a)(1) through (a)(3). The costs of the tests and evaluations performed by an independent laboratory have already occurred before the applicant files an MSHA product approval application. Therefore, the only costs to applicants associated with section 6.10(a)(1) through (a)(3) are those related to the applicant passing the required information received from the independent laboratory to MSHA.

In FY 2016, MSHA received 3 new applications for approval under Part 6.

MSHA estimates that a clerical worker, earning $32.71 per hour[[4]](#footnote-5), will take 15 minutes per application to prepare and send the data requested in paragraphs (a)(1) through (a)(3).

Burden Hours

3 applications for approval x 15 minutes = 1 hour

If an independent laboratory conducts any additional or repeat testing, then the applicant will have to send the test results to MSHA. This is true even if MSHA observes the testing performed by the independent laboratory. However, if MSHA performs additional or repeat testing itself, then it is not necessary for the applicant to send in the test results to MSHA. Sending additional or repeat testing results to MSHA is covered under section 6.10(d). Information concerning section 6.10(a)(1) through (a)(3) that was sent to MSHA with the original approval application will not have to be sent again as a result of any additional or repeat testing.

In FY 2016, MSHA received 3 applications for approval under Part 6 requirements. MSHA estimates that a clerical worker, earning $32.71 per hour, will take 15 minutes per application to prepare and send the test results requested in section 6.10(a)(2).

Burden Hours

3 applications for approval x 15 minutes = 1 hour

Total Part 6 Burden Hours. = 2 hours

Total Part 6 Burden Hour Cost (2 hours x $32.71) = $66

**PART 7 Testing by Applicant or Third Party**

**Part 7 (Subpart A): General**

The general requirements for the Part 7 approval process are in Subpart A, and the technical requirements for the design and performance of particular products are in subsequent subparts. Section 7.3 provides the general procedures and requirements an applicant is required to meet for MSHA approval of a product. Because the technical requirements are in the specific subparts for approval of each product, MSHA has provided the burden hours and costs under those subparts for application of the products.

Also, under this Subpart, applicants are required to maintain records of testing procedures and results for 3 years for the products they submit to MSHA for approval. MSHA believes that the only burden on the applicant in keeping the records is the use of storage space. MSHA views this burden as minimal, and therefore, no cost burden has been assigned. In addition, applicants must maintain records of the initial sale of each unit having an approval marking. The record retention period must be at least the expected shelf life and service life of the product. Manufacturers already keep records of sales, and MSHA believes that manufacturers will use existing record systems to fulfill this requirement. Therefore, no cost burden has been assigned.

Under Subpart A, MSHA is authorized to conduct periodic post-approval audits of approved products. No more than once a year except for cause, the approval holder, at MSHA's request, must make an approved product available at no cost to MSHA for an audit to be conducted at a mutually agreeable site and time. The burden costs to approval holders for providing products for audit are detailed under the appropriate Subparts in Item 13.

**Part 7 (Subpart B): Brattice Cloth and Ventilation Tubing**

In FY 2016, MSHA received 6 applications for approval and 1 application for extension of approval for brattice cloth and ventilation tubing under Subpart B. According to manufacturers' estimates, it requires 5 hours for an engineer to complete the application package and 5 hours to complete an application for an extension package.

Burden Hours

6 applications for approval x 5 hours = 30 hours

1 application for extension of approval x 5 hours = 5 hours

35 hours

Burden Hour Cost

35 hours x $67.22 per hour[[5]](#footnote-6) = $2,353

Total Part 7, Subpart B, Burden Hours = 35 hours

Total Part 7, Subpart B, Burden Hour Cost = $2,353

**Part 7 (Subpart C): Battery Assemblies**

In FY 2016, MSHA received 2 applications for approval, no applications for an extension of approval, and no Revised Approval Modification Programs (RAMP) applications for battery assemblies under Subpart C. According to manufacturers' estimates, it requires 4 hours to complete an application for approval, 4 hours to complete an application for an extension, and 2 hours to complete a RAMP application. An extension of an approval is any change in the approved product from the documentation on file at MSHA that affects the technical requirements under Subpart C. These technical requirements are such that any change in design most often requires a complete re-evaluation.

Burden Hours

2 applications for approval x 4 hours = 8 hours

1 application for extension of approval x 4 hours = 4 hours

1 RAMP application x 2 hours = 2 hours

Manufacturers of battery assemblies are required to include an approval checklist with each assembly sold. MSHA estimates that it will take 2 hours to develop the checklist.

2 applications for approval x 1 checklist x 2 hours = 4 hours

Total Part 7, Subpart C, Burden Hours = 18 hours

Burden Hour Cost

18 hours x $67.22 per hour = $1,210

Total Part 7, Subpart C, Burden Hour Cost = $1,210

**Part 7 (Subpart D): Multiple-Shot Blasting Units**

MSHA has received no applications for approval since 1988 and does not anticipate receiving any through the current fiscal year. However, if MSHA were to receive an application, it estimates that it would take an applicant 4 hours to prepare a new application package for approval and 2 hours to prepare an application for an extension.

Burden Hours

1 application for approval x 4 hours = 4 hours

1 application for extension of approval x 2 hours = 2 hours

Manufacturers of blasting units are required to include an approval checklist with each unit sold. MSHA estimates that it will take 2 hours to develop the checklist.

1 application for approval x 1 checklist x 2 hours = 2 hours

Total Part 7, Subpart D, Burden Hours = 8 hours

Burden Hour Cost

8 hours x $67.22 per hour = $538

Total Part 7, Subpart D, Burden Hour Cost = $538

**Part 7 (Subpart E): Diesel Engines Intended for Use in Underground Coal Mines**

**(Permissible Engines)**

In FY 2016, MSHA received no applications for approval, no applications for extensions of approval, and no RAMP applications for approval of new permissible engine models under Subpart E. The maximum fuel/air ratio tests are performed under section 7.87 and the gaseous ventilation tests are performed under section 7.88. MSHA estimates that it takes 43 hours, including preparation of an approval checklist, for manufacturers to prepare the application related to the maximum fuel/air ratio test and the gaseous ventilation rate test for a new permissible engine model.

Burden Hours

1 application for approval x 43 hours = 43 hours

1 application for extension of approval x 43 hours = 43 hours

1 RAMP application x 43 hours = 43 hours

New permissible engine models approved under Part 7, Subpart E, will need an additional test to determine the particulate index of the engine model. MSHA estimates that an additional 30 minutes is needed to record particulate test information on the application.

1 application for approval x 30 minutes = 1 hour

**(Non-Permissible Engines)**

In FY 2016, MSHA received 6 applications for approval, no applications for an extension of approval, and no RAMP applications for approval of new non-permissible engine models under Subpart E. An application for approval will incur burden hours related to tests for a maximum fuel/air ratio (required by section 7.87), a gaseous ventilation rate (required by section 7.88), and a particulate index (required by section 7.89). MSHA estimates that it takes 34.5 burden hours, including preparation of an approval checklist for a manufacturer to prepare the approval application related to all three tests for a new non-permissible engine model.

6 applications for approval x (34 hours, 30 minutes) = 207 hours

1 application for extension of approval x (34 hours, 30 minutes) = 35 hours

1 RAMP application x (34 hours, 30 minutes) = 35 hours

Total Part 7, Subpart E, Burden Hours = 407 hours

Burden Hour Cost

407 hours x $67.22 per hour = $27,359

Total Part 7, Subpart E, Burden Hour Cost = $27,359

**Part 7 (Subpart F): Diesel Power Packages Intended for Use in Areas of Underground Coal Mines Where Permissible Electric Equipment is Required**

In FY 2016, MSHA received no applications for approval, no applications for extensions of approval, and 2 RAMP applications for approval of a power package for a permissible engine model under Subpart F. Tests are required by section 7.100 - Explosion test; section 7.101 - Surface temperature test; section 7.102 - Exhaust gas cooling efficiency test; section 7.103 - Safety system control test; and section 7.104 - Internal static pressure test. MSHA estimates that it takes 43 burden hours including preparation of an approval checklist for manufacturers to prepare the application for approval of a power package for a permissible engine model.

Burden Hours

1 application for approval x 43 hours = 43 hours

1 application for extension of approval x 43 hours = 43 hours

2 RAMP applications x 43 hours = 86 hours

=172 hours

Burden Hour Cost

172 hours x $67.22 per hour = $11,562

Total Part 7, Subpart F, Burden Hours = 172 hours

Total Part 7, Subpart F, Burden Hour Cost = $11,562

**Part 7 (Subpart J): Electric Motor Assemblies**

In FY 2016, MSHA received 4 applications for approval, no applications for extensions of approval, and 8 RAMP applications for approval of motor assemblies under Subpart J. According to manufacturers’ estimates, it requires 8 hours for the preparation of a new application package, 6 hours to prepare an application for extension, and 2 hours to prepare a RAMP application.

Burden Hours

4 applications for approval x 8 hours = 32 hours

1 application for extension of approval x 6 hours = 6 hours

8 RAMP applications x 2 hours = 16 hours

Manufacturers of electric motor assemblies are required to include an approval checklist with each assembly sold. MSHA estimates that it will take 2 hours to develop the checklist.

4 applications for approval x 1 checklist x 2 hours = 8 hours

= 62 hours

Burden Hour Cost

62 hours x $67.22 per hour = $4,168

Total Part 7, Subpart J, Burden Hours = 62 hours

Total Part 7, Subpart J, Burden Hour Cost = $4,168

**Part 7 (Subpart K): Electric Cables, Signaling Cables, and Cable Splice Kits**

In FY 2016, MSHA received 27 applications for approval and 4 applications for extensions of approval of electric, signaling, fiber optic, and coaxial cables under Subpart K. MSHA estimates that a cable manufacturer would spend 6 hours preparing an initial application and 4 hours to prepare an application for extension.

Burden Hours

27 applications for approval x 6 hours = 162 hours

4 applications for extension of approval x 4 hours = 16 hours

In FY 2016, MSHA received no applications for approval and no applications for extensions of approval for cable splice kits under Subpart K. MSHA estimates that a cable manufacturer would spend 6 hours preparing an initial application and 4 hours to prepare an application for extension.

1 application for approval x 6 hours = 6 hours

1 application for extension of approval x 4 hours = 4 hours

= 188 hours

Burden Hour Cost

188 hours x $67.22 per hour = $12,637

Total Part 7, Subpart K, Burden Hours = 188 hours

Total Part 7, Subpart K, Burden Hour Cost = $12,637

**Part 7 (Subpart L): Refuge Alternatives**

In FY 2016, MSHA received 3 applications for approval and no applications for extensions of approval. MSHA estimates that a refuge alternative manufacturer would spend 400 hours preparing an initial application and 100 hours to prepare an application for extension.

Burden Hours

3 applications for approval x 400 hours = 1,200 hours

1 application for extension of approval x 100 hours = 100 hours

= 1,300 hours

Burden Hour Cost

1,300 hours x $67.22 per hour = $87,386

Total Part 7, Subpart L, Burden Hours = 1,300 hours

Total Part 7, Subpart L, Burden Hour Cost = $87,386

Total Part 7 Burden Hours = 2,147 hours

Total Part 7 Burden Cost = $147,213

**PART 14: Requirements for the Approval of Flame-Resistant Conveyor Belts**

In FY 2016, MSHA received 21 applications for approval and 1 application for extension of approval of flame-resistant conveyor belts. According to manufacturers’ estimates, it requires 5 hours to complete an application and 2 hours to complete an application for extension.

Burden Hours

21 applications for approval x 5 hours = 105 hours

1 application for extension of approval x 2 hours = 2 hours

= 107 hours

Burden Hour Cost

107 hours x $67.22 per hour = $7,193

Total Part 14 Burden Hours = 107 hours

Total Part 14 Burden Hour Cost = $7,193

**PART 15: Requirements for Approval of Explosives and Sheathed Explosive Units**

In FY 2010, MSHA received no applications for approval and no applications for extensions of approval for explosives and sheathed explosives units. According to manufacturers' estimates, it requires 5 hours to complete the application package. A Part 15 approval is a document issued for explosives meeting requirements as permissible for use in underground coal and other gassy mines as confirmed by test and evaluation. A Part 15 approval extension is a document issued when a previously approved explosive is modified by the manufacturer and, as modified, continues to meet requirements.

Burden Hours

1 application for approval x 5 hours = 5 hours

1 application for extension of approval x 5 hours = 5 hours

= 10 hours

Burden Hour Cost

10 hours x $67.22 per hour = $672

Total Part 15 Burden Hours = 10 hours

Total Part 15 Burden Hour Cost = $672

**PART 18: Electrical Motor Driven Mine Equipment and Accessories**

Part 18 establishes requirements to obtain MSHA approval of electrically operated machines and accessories intended for use in mines or tunnels. MSHA’s estimate of the number of Part 18 applications for approval, acceptance, field modification, certification, permits, simplified certification, and RAMP applications, and applications for extensions of approval, acceptance, certification, and simplified certification, along with the time per submittal are as follows:

Burden Hours

15 applications for approval x 14 hours = 210 hours

8 applications for acceptance x 14 hours = 112 hours

1 application for extension of approval x 5 hours = 5 hours

1 application for extension of acceptance x 5 hours = 5 hours

8 field modification applications x 5 hours = 40 hours

3 applications for certification x 14 hours = 42 hours

1 application for extension of certification x 5 hours = 5 hours

3 permit applications x 5 hours = 15 hours

1 application for simplified certification x 7 hours = 7 hours

1 application for extension of simplified certification x 3 hours = 3 hours

87 RAMP applications x 1 hour = 87 hours

Total Part 18 Burden Hours = 531 hours

Total Part 18 Burden Hour Cost

531 hours x $67.22 per hour = $35,694

Section 18.53(h) requires that a study (to determine the minimum available fault current to ensure adequate protection for the length and conductor size of the longwall motor, shearer and trailing cables) be submitted to MSHA. This study is routinely included with the approval application, and is included in the above approval applications burden hours.

**PART 19: Electric Cap Lamps**

Part 19 establishes requirements to obtain MSHA approval of electric cap lamps and accessories intended for use in mines. MSHA’s estimate of the number of Part 19 applications for approval, applications for extensions of approval, and RAMP applications, along with the time per submittal are shown below.

Burden Hours

3 applications for approval x 14 hours = 42 hours

1 application for extension of approval x 5 hours = 5 hours

4 RAMP applications x 1 hour = 4 hours

Total Part 19 Burden Hours = 51 hours

Total Part 19 Burden Hour Cost

51 hours x $67.22 per hour = $3,429

**PART 20: Electric Mine Lamps Other Than Standard Cap Lamps**

Part 20 establishes requirements to obtain MSHA approval of any electric mine lamps, other than standard cap lamps, intended for use in mines. MSHA’s estimate of the number of Part 20 applications for approval, applications for extensions of approval, and RAMP applications, along with the time per submittal are shown below.

Burden Hours

7 applications for approval x 14 hours = 98 hours

1 application for extension of approval x 5 hours = 5 hours

2 RAMP applications x 1 hour = 2 hours

Total Part 20 Burden Hours = 105 hours

Total Part 20 Burden Hour Cost

105 hours x $67.22 per hour = $7,058

**PART 22: Portable Methane Detectors**

Part 22 establishes requirements to obtain MSHA approval of any portable methane detectors intended for use in mines. MSHA’s estimate of the number of Part 22 applications for approval, applications for extensions of approval, and RAMP applications, along with the time per submittal are shown below.

Burden Hours

1 application for approval x 14 hours = 14 hours

1 application for extension of approval x 5 hours = 5 hours

1 RAMP application x 1 hour = 1 hours

Total Part 22 Burden Hours = 20 hours

Total Part 22 Burden Hour Cost

20 hours x $67.22 per hour = $1,344

**PART 23: Telephones and Signaling Devices**

Part 23 establishes requirements to obtain MSHA approval of telephones and signaling devices intended for use in mines. MSHA’s estimate of the number of Part 23 applications for approval, applications for extensions of approval, and RAMP applications, along with the time per submittal are shown below.

Burden Hours

3 applications for approval x 14 hours = 42 hours

1 application for extension of approval x 5 hours = 5 hours

7 RAMP applications x 1 hour = 7 hours

Total Part 23 Burden Hours = 54 hours

Total Part 23 Burden Hour Cost

54 hours x $67.22 per hour = $3,630

**PART 27: Methane Monitoring Systems**

Part 27 establishes requirements to obtain MSHA approval of methane monitoring systems or components for their incorporation in or with permissible equipment intended for use in mines. MSHA’s estimate of the number of Part 27 applications for certification, applications for extensions of certification, and RAMP applications, along with the time per submittal are shown below.

Burden Hours

1 application for certification x 14 hours = 14 hours

1 application for extension of certification x 5 hours = 5 hours

1 RAMP application x 1 hour = 1 hour

Total Part 27 Burden Hours = 20 hours

Total Part 27 Burden Hour Cost

20 hours x $67.22 per hour = $1,344

**PART 28: Fuses for Use with Direct Current**

Part 28 establishes requirements to obtain MSHA approval of fuses for use with direct current in providing short‑circuit protection for trailing cables in coal mines. MSHA’s estimate of the number of Part 28 applications for approval, applications for extensions of approval, and RAMP applications, along with the time per submittal are shown below.

Burden Hours

1 application for approval x 14 hours = 14 hours

1 application for extension of approval x 5 hours = 5 hours

1 RAMP application x 1 hour = 1 hour

Total Part 28 Burden Hours = 20 hours

Total Part 28 Burden Hour Costs

20 hours x $67.22 per hour = $1,344

**PART 33: Dust Collectors for Use in Connection With Rock Drilling in Coal Mines**

Part 33 establishes requirements to obtain MSHA approval of dust collectors used in connection with rock drilling in coal mines. MSHA’s estimate of the number of Part 33 applications for approval, certification, extensions of approval, extensions of certifications, field modifications and RAMP applications, along with the time per submittal are shown below.

Burden Hours

1 application for approval x 14 hours = 14 hours

1 application for extension of approval x 5 hours = 5 hours

1 application for certification x 14 hours = 14 hours

1 application for extension of certification x 5 hours = 5 hours

1 RAMP application x 1 hour = 1 hours

Total Part 33 Burden Hours = 39 hours

Total Part 33 Burden Hour Cost

39 hours x $67.22 per hour = $2,622

**PART 35: Fire Resistant Hydraulic Fluids**

Part 35 establishes requirements to obtain MSHA approval for fire resistant hydraulic fluids and concentrates for use in machines and devices that are operated in coal mines. MSHA’s estimate of the number of Part 35 applications for approval and applications for extensions of approval, along with the time per submittal are shown below.

Burden Hours

1 application for approval x 24 hours = 24 hours

1 application for extension of approval x 24 hours = 24 hours

Total Part 35 Burden Hours = 48 hours

Total Part 35 Burden Hour Cost

48 hours x $67.22 per hour = $3,227

**PART 36: Approval Requirements for Permissible Mobile Diesel-Powered Transportation Equipment**

Part 36 establishes requirements to obtain MSHA approval for permissible mobile diesel‑powered transportation equipment intended for use in mines. MSHA’s estimate of the number of Part 36 applications for approval, extensions of approval, certification of safety components, extension of certification of safety components, and RAMP applications, along with the time per submittal are as follows:

Burden Hours

2 applications for approval x 14 hours = 28 hours

1 application for extension of approval x 5 hours = 5 hours

1 application for safety component certification x 5 hours = 5 hours

1 application for extension of safety component certification

x 5 hours = 5 hours

1 RAMP application x 1 hour = 1 hour

Total Part 36 Burden Hours **= 44 hours**

Total Part 36 Burden Hour Cost

44 hours x $67.22 per hour = $2,958

**Table Associated With Question 12**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cite**  **Reference** | **Total Respondents** | **Total Responses** | **Burden Hours** | **Burden Hour Cost** |
| Part 6 | 3 | 6 | 2 | $66 |
| Part 7 | 37 | 86 | 2,147 | $147,213 |
| Part 14 | 7 | 22 | 107 | $7,193 |
| Part 15 | 1 | 2 | 10 | $672 |
| Part 18 | 70 | 129 | 531 | $35,694 |
| Part 19 | 4 | 8 | 51 | $3,429 |
| Part 20 | 3 | 10 | 105 | $7,058 |
| Part 22 | 2 | 3 | 20 | $1,345 |
| Part 23 | 7 | 11 | 54 | $3,630 |
| Part 27 | 1 | 3 | 20 | $1,344 |
| Part 28 | 1 | 3 | 20 | $1,344 |
| Part 33 | 1 | 5 | 39 | $2,622 |
| Part 35 | 1 | 2 | 48 | $3,227 |
| Part 36 | 1 | 6 | 44 | $2,958 |
| **Total** | **139** | **296** | **3,198** | **$217,795** |

**13. Provide an estimate of the total annual cost burden to respondents or record keepers 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.**

30 CFR Part 5, Fees for Testing, Evaluation, and Approval of Mining Products section 5.10 states “This part establishes a system under which MSHA charges a fee for services provided. This part includes the management and calculation of fees for the approval program, which includes: application processing, testing and evaluation, approval decisions, post-approval activities, and termination of approvals.” This fee applies to all parts and subparts mentioned in this Supporting Statement.

Under the FY 2016 fee schedule issued pursuant to 30 CFR Part 5, MSHA charges $121 per hour to evaluate applications for approval. The fee for testing, evaluation and approval of a product is based on the costs of the services provided.

Direct costs are based on current compensation and benefit costs for technical and support personnel directly involved in providing the service. Indirect costs are based on a proportionate share of the cost of activities which support the approval service, including management and administration of the MSHA facility operating costs and amortization and depreciation of facilities and equipment. MSHA also includes a quality control adjustment factor (of 1.34) to account for activities supporting the approval program (test setup, test teardown, internal quality control activities).

Unless otherwise noted, the average postage cost to submit an application is estimated to be $7.

**PART 6: Testing and Evaluation by Independent Laboratories and Non-MSHA Product Safety Standards**

In FY 2016, MSHA received 3 applications to be evaluated under Part 6 requirements. These applications were processed under Parts 18 and 23. Therefore, the cost to the applicant for MSHA’s evaluation is included under Parts 18 and 23 in this document.

**PART 7: Testing by Applicant or Third Party**

**Part 7 (Subpart B): Brattice Cloth and Ventilation Tubing**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing brattice cloth and ventilation tubing investigations in FY 2016. The cost to applicants for MSHA’s evaluation of their applications for approval and extensions for approval is calculated as follows:

6 applications for approval x 9.4 x $121 per hour x 1.34 = $ 9,145

1 application for extension of approval x 6 hours x $121 per hour x 1.34 = $ 973

7 applications x $7 postage = $ 49

Total Part 7, Subpart B, Cost = $10,167

**Part 7 (Subpart C): Battery Assemblies**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing battery assembly investigations in FY 2016. The cost to applicants for MSHA's evaluation of their applications for approval, extension of approval, and RAMP applications is calculated as follows:

2 applications for approval x 20.5 x $121 per hour x 1.34 = $ 6,648

1 application for extension of approval x 2 hours x $121 per hour x 1.34 = $ 324

1 RAMP application x 5.5 x $121 per hour x 1.34 = $ 892

4 applications x $7 postage = $ 28

Total Part 7, Subpart C, Cost = $ 7,892

MSHA has assigned no cost burden to the auditing of battery assemblies because the audits are performed at the manufacturing site or a distribution center with no cost to the applicant. It is not necessary to destroy a battery assembly in order to audit it.

**Part 7 (Subpart D): Multiple-Shot Blasting Units**

MSHA has not received any applications for blasting units for several years. Instances where MSHA did not receive any applications, an estimate of one application will be used and the hours will be taken from a similar program. The cost to applicants for MSHA's evaluation of their applications for approval and extension of approval is calculated as follows:

1 application for approval x 4 hours x $121 per hour x 1.34 = $ 649

1 application for extension of approval x 2 hours x $121 per hour x 1.34 = $ 324

2 applications x $7 postage = $ 14

Total Part 7, Subpart D, Cost = $ 987

MSHA has assigned no cost burden to the auditing of blasting units because the audits are performed at the manufacturing site or a distribution center. It is not necessary to destroy a blasting unit in order to audit it.

**Part 7 (Subpart E): Diesel Engines Intended for Use in Underground Coal Mines**

**(Permissible Engines)**

MSHA did not receive any applications for permissible engines in FY 2016. Instances where MSHA did not receive any applications, an estimate of one application will be used and the hours will be taken from a similar program. The cost to applicants for MSHA's evaluation of their applications for approval, extension of approval, and RAMP applications is calculated as follows:

1 application for approval x 33 hours x $121 per hour x 1.34 = $ 5,351

1 application for extension of approval x 21 hours x $121 per hour x1.34 = $ 3,405

1 RAMP application x 4 hours x $121 per hour x 1.34 = $ 649

3 applications (permissible engines) x $7 postage = $ 21

MSHA estimates the cost for these tests on a new permissible engine model to be about $25,000. (Note: This is not a new cost incurred by manufacturers under Part 7, subpart E, because these tests were formerly performed under existing Part 36.)

1 application for approval per year x $25,000 = $25,000

MSHA estimates that a particulate index test for a new permissible engine model that is already set up to run a maximum fuel/air ratio test and gaseous ventilation test will cost about $7,500.

1 application for approval per year x $7,500 = $7,500

MSHA has assigned no cost burden to the auditing of permissible engines because the audits are performed at the manufacturing site or a distribution center. It is not necessary to destroy a permissible engine in order to audit it.

**(Non-Permissible Engines)**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing non-permissible engine investigations in FY 2016. The cost to applicants for MSHA's evaluation of their applications for approval, extension of approval, and RAMP applications is calculated as follows:

6 applications for approval x 26.8 hours x $121 per hour x 1.34 = $ 26,073

1 application for extension of approval x 21 hours x $121 per hour x 1.34 = $ 3,405

1 RAMP application x 4 hours x $121 per hour x 1.34 = $ 649

8 applications (non-permissible engines) x $7 postage = $ 56

Non-permissible engines are required to have a maximum fuel/air ratio test (required by section 7.87), a gaseous ventilation test (required by section 7.88), and a particulate index test (required by section 7.89). A manufacturer can have all three tests for a new non-permissible engine model performed by a third party. MSHA estimates that the cost to conduct all three tests is $30,000.

6 applications for approval per year x $30,000 = $180,000

MSHA has assigned no cost burden to the auditing of non-permissible engines because the audits are performed at the manufacturing site or a distribution center. It is not necessary to destroy a non-permissible engine in order to audit it.

Total Part 7, Subpart E, Cost = $ 252,109

**Part 7 (Subpart F): Diesel Power Packages Intended for Use in Areas of Underground Coal Mines Where Permissible Electric Equipment is Required**

**(Diesel Permissible Power Packages)**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing non-permissible engine investigations in FY 2016. Instances where MSHA did not receive any applications, an estimate of one application will be used and the hours will be taken from a similar program. The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

1 application for approval x 82 hours x $121 per hour x 1.34 = $13,296

1 application for extension of approval x 36 hours x $121 per hour x 1.34 = $ 5,838

2 RAMP applications x 16.5 hours x $121 per hour x 1.34 = $ 5,351

4 applications x $7 postage = $ 28

Tests on power packages for new permissible engine models may be performed by a third party. These tests will be done under section 7.100 - Explosion test; section 7.101 - Surface temperature test; section 7.102 - Exhaust gas cooling efficiency test; section 7.103 - Safety system control test; and section 7.104 - Internal static pressure test. MSHA estimates that the cost to have these tests done on a power package for a new permissible engine model to be about $35,000.

1 application for approval per year x $35,000 = $35,000

MSHA has assigned no cost burden to the auditing of permissible power packages because the audits are performed at the manufacturing site or a distribution center. It is not necessary to destroy a power package in order to audit it.

Total Part 7, Subpart F, Cost = $59,513

**Part 7 (Subpart J): Electric Motor Assemblies**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing motor assembly investigations in FY 2016. Instances where MSHA did not receive any applications, an estimate of one application will be used and the hours will be taken from a similar program. The cost to applicants for MSHA's evaluations of their applications for approval is calculated as follows:

4 applications for approval x 28 hours x $121 per hour x 1.34 = $18,160

1 application for extension of approval x 2 hours x $121 per hour x 1.34 = $ 324

8 RAMP applications x 10.9 x $121 per hour x 1.34 = $14,139

13 applications x $7 postage = $ 91

Total Part 7, Subpart J, Cost = $32,714

MSHA has assigned no cost burden to the auditing of motor assemblies because the audits are performed at the manufacturingsite or distribution center with no cost to the applicant. It is not necessary to destroy the motor assembly in order to audit it.

**Part 7 (Subpart K): Electric Cables, Signaling Cables, and Cable Splice Kits**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing cable investigations in FY2016. The cost to applicants for MSHA's evaluations of their applications for approval is calculated as follows:

27 applications for approval x 9.1 hours x $121 per hour x 1.34 = $ 39,838

4 applications for extensions of approval x 4.7 hours x $121 per hour x 1.34

= $ 3,048

Tests on cables may be performed by a third party. MSHA estimates that the cost to have these tests done to be about $750.

27 applications for approval x $750 = $ 20,250

4 applications for extensions of approval x $750 = $ 3,000

31 applications x $7 postage = $ 217

In order to determine costs under this section, MSHA calculated the average number of hours spent processing splice kit investigations in FY 2016. The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

1 application for approval x 4 hours x $121 per hour x 1.34 = $ 649

1 application for extension of approval x 3 hours x $121 per hour x 1.34 = $ 486

2 applications x $7 postage = $ 14

Tests on splice kits may be performed by a third party. MSHA estimates that the cost to have these tests done to be about $750.

1 application for approval x $750 = $ 750

1 application for extensions of approval x $750 = $ 750

In FY 2016, MSHA conducted 23 cable audits and 1 splice kit audit. The estimated cost to the approval holders for providing these products to MSHA is as follows:

12 cable samples x $150 per sample = $ 1,800

1 splice kit sample x $150 per sample = $ 150

11 signaling cable samples x $150 per sample = $ 1,650

Total Part 7, Subpart K, Cost = $72,602

**Part 7 (Subpart L): Refuge Alternatives**

Instances where MSHA did not receive any applications, an estimate of one application will be used and the hours will be taken from a similar program. In order to determine costs under this section, MSHA calculated the average number of hours spent processing applications for refuge alternative components in FY 2016. The cost to applicants for MSHA's evaluations of their applications for approval is calculated as follows:

3 applications for approval x 70.6 hours x $121 per hour x 1.34 = $ 34,341

1 application for extension of approval x 20 hours x $121 per hour x 1.34 = $ 3,243

23 RAMP applications x 7.1 hours x $121 per hour x 1.34 = $ 26,477

27 applications x $7 postage = $ 189

Total Part 7, Subpart L, Cost = $ 64,250

Total Part 7 Costs = $500,234

**PART 14: Requirements for the Approval of Flame-Resistant Conveyor Belts**

In FY 2016, MSHA received 21 applications for approval and 1 application for extension of approval for Approval of Flame-Resistant Conveyor Belts. Instances where MSHA did not receive any applications, an estimate of one application will be used and the hours will be taken from a similar program. The cost to applicants for MSHA's evaluations of their applications for approval is calculated as follows:

21 applications for approval x 24 hours x $121 per hour x 1.34 = $ 81,719

1 application for extension of approval x 12 hours x $121 per hour x 1.34 = $ 1,946

22 applications x $7 postage = $ 154

Total Part 14 Cost = $ 83,819

**PART 15: Requirements for Approval of Explosives and Sheathed Explosive Units**

In FY 2016, MSHA received no applications for approval and no applications for extension of approval for explosives and sheathed explosives units. Instances where MSHA did not receive any applications, an estimate of one application will be used and the hours will be taken from a similar program. The cost to applicants for MSHA's evaluations of their applications for approval is calculated as follows:

1 application for approval x 50 hours x $121 per hour x 1.34 = $ 8,107

1 application for extension of approval x 25 hours x $121 per hour x 1.34 = $ 4,054

2 applications x $7 postage = $ 14

Under Part 15, Subpart A, MSHA is authorized to conduct periodic post-approval audits of approved products. No more than once a year except for cause, the approval holder, at MSHA's request, must make an approved product available at no cost to MSHA for an audit to be conducted at a mutually agreeable site and time. In FY 2016, MSHA conducted no explosives or sheathed explosives unit audits. If audits were performed, the samples would be destroyed during the testing process.

1 explosive x $25 per sample = $ 25

1 sheathed explosives unit x $100 per sample = $ 100

Total Part 15 Cost = $12,300

**PART 18: Electrical Motor Driven Mine Equipment and Accessories**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

Destructive testing is often required during the evaluation of the mining equipment and materials covered under this part. However, the cost of the samples subjected to destructive testing is insignificant and a customary and usual business practice.

15 applications for approval x 123.5 hours x $121 per hour x 1.34 = $300,364

8 applications for acceptance x 3.8 hours x $121 per hour x 1.34 = $ 4,929

1 application for extension of approval x 19.1 hours x $121 per hour x 1.34 = $ 3,097

1 application for extension of acceptance x 2 hours x $121 per hour x 1.34 = $ 324

8 field modification applications x 14.5 hours x $121 per hour x 1.34 = $ 18,808

3 applications for certification x 129 hours x $121 per hour x 1.34 = $ 62,748

1 application for extension of certification x 23.6 hours

x $121 per hour x 1.34 = $ 3,827

3 permit applications x 2.1 hours x $121 per hour x 1.34 = $ 1,021

1 application for simplified certification x 115.7 hours

x $121 per hour x 1.34 = $ 18,760

1 application for extension of simplified certification

x 18.1 hours x $121 per hour x 1.34 = $ 2,935

87 RAMP applications x 15.1 hours x $121 per hour x 1.34 = $213,003

129 applications x $7 postage = $ 903

Total Part 18 Cost = $630,719

**PART 19: Electric Cap Lamps**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

Destructive testing is often required during the evaluation of the mining equipment and materials covered under this part. However, the cost of the samples subjected to destructive testing is insignificant and a customary and usual business practice.

3 application for approval x 122 hours x $121 per hour x 1.34 = $ 59,343

1 application for extension of approval x 29.9 hours x $121 per hour x 1.34 = $ 4,848

4 RAMP applications x 29.8 hours x $121 per hour x 1.34 = $ 19,327

8 applications x $7 postage = $ 56

Total Part 19 Cost = $ 83,574

**PART 20: Electric Mine Lamps Other Than Standard Cap Lamps**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

Destructive testing is often required during the evaluation of the mining equipment and materials covered under this part. However, the cost of the samples subjected to destructive testing is insignificant and a customary and usual business practice.

7 applications for approval x 97.8 hours x $121 per hour x 1.34 = $111,001

1 application for extension of approval x 29.9 hours x $121 per hour x 1.34 = $ 4,848

2 RAMP applications x 17.9 hours x $121 per hour x 1.34 = $ 5,805

10 applications x $7 postage = $ 70

Total Part 20 Cost = $121,724

**PART 22: Portable Methane Detectors**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

Destructive testing is often required during the evaluation of the mining equipment and materials covered under this part. However, the cost of the samples subjected to destructive testing is insignificant and a customary and usual business practice.

1 application for approval x 221.8 hours x $121 per hour x 1.34 = $ 35,963

1 application for extension of approval x 110.9 hours x $121 per hour x 1.34 = $ 17,981

1 RAMP application x 23.6 hours x $121 per hour x 1.34 = $ 3,827

3 applications x $7 postage = $ 21

Total Part 22 Cost = $ 57,792

**PART 23: Telephones and Signaling Devices**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

Destructive testing is often required during the evaluation of the mining equipment and materials covered under this part. However, the cost of the samples subjected to destructive testing is insignificant and a customary and usual business practice.

3 applications for approval x 163 hours x $121 per hour x 1.34 = $ 79,287

1 application for extension of approval x 54.3 hours x $121 per hour x 1.34 = $ 8,804

7 RAMP applications x 36 hours x $121 per hour x 1.34 = $ 40,859

11 applications x $7 postage = $ 77

Total Part 23 Cost = $129,027

**PART 27: Methane Monitoring Systems**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

Destructive testing is often required during the evaluation of the mining equipment and materials covered under this part. However, the cost of the samples subjected to destructive testing is insignificant and a customary and usual business practice.

1 application for certification x 66.8 hours x $121 per hr x 1.34 = $ 10,831

1 application for extension of certification x 27 hours x $121 per hr x 1.34 = $ 4,378

1 RAMP application x 89.4 hours x $121 per hr x 1.34 = $ 14,495

3 applications x $7 postage = $ 21

Total Part 27 Cost = $ 29,725

**PART 28: Fuses for Use with Direct Current**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, travel time, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

1 application for approval x 71 hours x $121 per hour x 1.34 = $11,512

1 application for extension of approval x 40 hours x $121 per hour x 1.34 = $ 6,486

1 RAMP application x 4 hours x $121 per hour x 1.34 = $ 649

3 applications x $7 postage = $ 21

MSHA does not have the facilities necessary to perform the destructive testing required in this part. Therefore, the cost burden includes the following:

Travel cost to witness testing = $ 1,000

Test facility rental (1.5 days @ $10,000/day) = $15,000

Total Part 28 Cost = $34,668

**PART 33: Dust Collectors for Use in Connection with Rock Drilling in Coal Mines**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

1 application for approval x 5 hours x $121 per hour x 1.34 = $ 811

1 application for extension of approval x 3 hours x $121 per hour x 1.34 = $ 486

1 application for certification x 11 hours x $121 per hour x 1.34 = $1,784

1 application for extension of certification x 3 hours x $121 per hour x 1.34 = $ 486

1 RAMP application x 10.5 hours x $121 per hour x 1.34 = $1,702

5 applications x $7 postage = $ 35

The testing required under this Part is done at a mine site. The cost burden includes the travel cost to witness the testing.

Travel cost to witness testing = $1,000

Total Part 33 Cost = $6,304

**PART 35: Fire Resistant Hydraulic Fluids**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents. Destructive testing is required under this part. However, the cost of the samples subjected to destructive testing is insignificant and a customary and usual business practice.

1 application for approval x 46.1 hours x $121 per hour x 1.34 = $ 7,475

1 application for extension of approval x 4.3 hours x $121 per hour x 1.34 = $ 697

2 applications x $7 postage = $ 14

Total Part 35 Cost = $ 8,186

**PART 36: Approval Requirements for Permissible Mobile Diesel-Powered Transportation Equipment**

In order to determine costs under this section, MSHA has estimated the number of hours it would take to review the relevant documents, i.e., applications, etc. The actual calculation used takes into account the number of documents, the number of hours it takes to review each document, a decimal figure determined by MSHA to account for overhead costs, and the hourly rate charged by MSHA to review the documents.

2 applications for approval x 78.8 hours x $121 per hour x 1.34 = $25,553

1 application for extension of approval x 29 hours

x $121 per hour x 1.34 = $ 4,702

1 application for safety component certification

x 10 hours x $121 per hour x 1.34 = $ 1,621

1 application for extension of safety component certification

x 5 hours x $121 per hour x 1.34 = $ 811

1 RAMP application x 8.3 hours x $121 per hour x 1.34 = $ 1,346

6 applications x $7 postage = $ 42

Total Part 36 Cost = $34,075

**Table Associated With Question 13**

|  |  |
| --- | --- |
| **Cite** | **Burden Costs** |
| Part 6 | $0 |
| Part 7 | $500,234 |
| Part 14 | $83,819 |
| Part 15 | $12,300 |
| Part 18 | $630,719 |
| Part 19 | $83,574 |
| Part 20 | $121,724 |
| Part 22 | $57,792 |
| Part 23 | $129,027 |
| Part 27 | $29,725 |
| Part 28 | $34,668 |
| Part 33 | $6,304 |
| Part 35 | $8,186 |
| Part 36 | $34,075 |
| **TOTALS** | **$1,732,147** |

**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 only costs to MSHA under 30 CFR part 6 through 36 are those related to post-approval audits. These audits are conducted in MSHA laboratories by lab personnel or at mine warehouses, or manufacturing or distribution sites by Mining Equipment Compliance Specialists. The costs to conduct these audits are as follows.

MSHA estimates that its travel cost to have a Laboratory Technician or a Mining Equipment Compliance Specialist travel to a mine, manufacturing or distribution site and perform a post-approval audit in FY 2016 on equipment was approximately $54 per audit. This includes mileage, lodging, parking, tolls, travel time, and consumables. Also, many audits are performed in the laboratory on samples provided by the approval holder. MSHA estimates the salary expense for a Laboratory Technician or a Mining Equipment Compliance Specialist to be $58.57 per hour[[6]](#footnote-7).

**Part 7 (Subpart B): Brattice Cloth and Ventilation Tubing**

7 audits x 2.5 hours per audit x $58.57 per hour = $ 1,025

**Part 7 (Subpart E): Diesel Engines Intended for Use in Underground Coal Mines**

**(Non-Permissible Engines)**

19 audits x 1.8 hours per audit x $58.57 per hour = $2,003

**Part 7 (Subpart F): Diesel Power Packages Intended for Use in Areas of Underground Coal Mines Where Permissible Electric Equipment is Required**

2 audits x 4.5 hours per audit x $58.57 per hour = $ 527

**Part 7 (Subpart J): Electric Motor Assemblies**

(2 office audits x 4.1 hours per audit x $58.57 per hour) +

(3 travel audits x 20 hours per audit x $58.57 per hour) +

(3 audits x $54 travel cost per audit) = $ 4,156

**Part 7 (Subpart K): Electric Cables, Signaling Cables, and Cable Splice Kits**

12 cable samples x 3.5 hours per sample x $58.57 per hour = $ 2,460

1 splice kit sample x 3.2 hours per sample x $58.57 per hour = $ 187

11 signaling cable samples x 3.4 hours per sample x $58.57 per hour = $ 2,191

Total Part 7, Subpart K, Cost = $ 4,838

**Part 14: Flame-Resistant Conveyor Belts**

3 audits x 4.6 hours per audit x $58.57 per hour = $ 808

**Part 18: Electrical Motor Driven Mine Equipment and Accessories**

(79 audits x 7.0 hours per audit x $58.57 per hour) +

(79 audits x $54 travel cost per audit) = $36,655

**Part 19: Electric Cap Lamps**

(42 audits x 1.3 hours per audit x $58.57 per hour) +

(42 audits x $54 travel cost per audit) = $ 5,466

**Part 23: Telephones and Signaling Devices**

(69 audits x 1.6 hours per audit x $58.57 per hour) +

(69 audits x $54 travel cost per audit) = $ 10,192

**Part 27: Methane Monitoring Systems**

(33 audits x .5 hours per audit x $58.57 per hour) +

(33 audits x $54 travel cost per audit) = $ 2,748

**Total Annualized Cost to Federal Government for**

**All Ongoing Product Audit Programs**  **= $ $68,418**

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

There was a decrease in 1,442 burden hours from this change request (from 4,630 to 3,198).

There was a decrease in 476 responses (from 772 to 296) and a decrease in respondents (257 to 139).

Burden costs decreased by $1,070,920 (from $2,803,067 to $1,732,147). The number of applications processed in each fiscal year has decreased, primarily because of the general decline in coal mining in the United States.

**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 has no plans 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 will display the Control Number expiration date on associated forms.

**18. Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions."**

There are no certification exceptions identified with this certification statement.

**B. Collection of Information Employment Statistical Methods**

This collection of information does not employ statistical methods and statistical analysis is not required by the regulation; therefore, questions 1 through 5 do not apply.

1. Options for obtaining OES data are available at item “E3. How to get OES Data. What are the different ways to obtain OES estimates from this website?” at <https://www.bls.gov/oes/oes_ques.htm>. [↑](#footnote-ref-2)
2. The benefit-scaler comes from BLS Employer Costs for Employee Compensation access by menu <http://www.bls.gov/data/> or directly with <http://download.bls.gov/pub/time.series/cm/cm.data.0.Current>. The data series CMU203G000000000P is divided by 100 to convert to a decimal value. MSHA used the latest 4 quarter moving average 2016Qtr3-2017Qtr2 to determine that 33.5 percent of total compensation is benefits. MSHA computes the scaling factor with a number of detailed calculations but it may be approximated with the formula and values 1 + (benefit percentage/(1-benefit percentage)) = 1+(0.335/1-.335)) = 1.50. [↑](#footnote-ref-3)
3. Wage inflation is the change in Series ID: CIU202G000000000I; Not Seasonally Adjusted; Series title: Wages and salaries for Private industry workers in Goods-producing industries, Index. Qtr 2 2017/Qtr 3 2016 or 127.9/125.5=1.019 ). (<https://data.bls.gov/cgi-bin/srgate>) [↑](#footnote-ref-4)
4. For the clerical worker hourly wage rate, MSHA used the employment weighted mean hourly wage from the OES May 2016 survey, for 4 clerical worker occupations from SOC major group code 43 and 40 North American Industry Classification System (NAICS) codes historically represented in the approval requests. The weighted mean was adjusted for benefits and inflation to obtain a fully loaded rate of $32.71 ($21.40 x 1.5 x 1.019). All subsequent uses of $32.71 represent clerical hours. [↑](#footnote-ref-5)
5. For the engineer hourly wage rate, MSHA used the employment weighted mean hourly wage from the OES May 2016 survey, for 11 engineer occupations from SOC major group code 17 and 40 North American Industry Classification System (NAICS) codes historically represented in the approval requests. The weighted mean was adjusted for benefits and inflation to obtain a fully loaded rate of $67.22 ($43.98 x 1.50 x 1.019). [↑](#footnote-ref-6)
6. Hourly rate developed from Office of personnel Management (OPM) June 2017 *FedScope* employment cube, <http://www.fedscope.opm.gov/>. Data search qualifiers were: Agency = DLMS, location=WV, Occupation = 18xx and 08xx, Work Schedule = Full-Time, Salary Grade = all GS, Measure = Average Salary. The hourly wage is the annual salary divided by 2,087. In order to include the cost of benefits, MSHA multiplied the average salary by a federal benefit scaler for MSHA of 1.396 (FY 2018 budget submission). Rate engineer: $59.86=$89,489/2087 x 1.396. Rate expert: $57.28=$85,630/2087 x 1.396. Either occupation may be involved with the audit so the average rate of the two, or $58.57, was used. [↑](#footnote-ref-7)