**NOTE TO THE REVIEWER OF PAPERWORK PACKAGE 1219-0066**
**TESTING, EVALUATION, AND APPROVAL OF MINING PRODUCTS**

Information Collection Report (ICR) 1219-0066 has been updated in an effort to streamline existing ICR packages. This updating affects the following ICR packages:

- **1219-0066**(*Testing, Evaluation, and Approval of Mining Products*). This package will remain as the main package and has been updated accordingly. Parts or all of the packages listed below have been added to this package.

- **1219-0100**(*Product Testing by Applicant or Third Party, 30 C.F.R. Part 7, Subparts A through D, and Subparts J and K*). This entire package has been added to 1219-0066, and package 1219-0100 is eliminated.

- **1219-0116**(*Final Rule: High-Voltage Longwall Equipment Standards for Underground Coal Mines - §18.53(h), §75.820(b), §85.820(e), and §75.821(d)*). Portions of this package that refer to 30 C.F.R. Section 18.53(h) has been removed and added to 1219-0066. This package will remain in place with reference only to Part 75 sections.

- **1219-0119**(*30 C.F.R. Parts 7, 36, 70, and 75 – Approval, Exhaust Gas Monitoring, and Safety Requirements for the Use of Diesel-Powered Equipment in Underground Coal Mines*). Portions of this package that refer to 30 C.F.R. part 7, Subparts E and F has been removed and added to 1219-0066. This package will remain in place with reference only to Part 75 sections.

- **1219-0136**(*Testing and Evaluation by Independent laboratories and Non-MSHA Product Safety Standards - §6.10*). This entire package has been added to 1219-0066, and package 1219-0136 is eliminated.

# SUPPORTING STATEMENT

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

| | |
|---|---|
| **Part 6 (§§ 6.10(a)(2), 6.10(f))** | **Testing and Evaluation by Independent Laboratories and Non-MSHA Product Safety Standards Compliance Costs Associated with 6.10(d) Notification of Defective Products** |
| **Part 7 (§§ 7.23, 7.27, 7.28 7.29, 7.43, 7.46, 7.47, 7.49, 7.51, 7.63, 7.69, 7.71, 7.83, 7.90, 7.97, 7.105, 7.303, 7.306, 7.309, 7.311, 7.403, 7.407, 7.408, 7.409)** | **Testing by Applicant or Third Party:** |
| **Subpart A** | **General** |
| **Subpart B** | **Brattice Cloth and Ventilation Tubing;** |
| **Subpart C** | **Battery Assemblies;** |
| **Subpart D** | **Multiple-Shot Blasting Units;** |
| **Subpart E** | **Diesel Engines Intended for Use in Underground Coal Mines;** |
| **Subpart F** | **Diesel Power Packages Intended for Use in Areas of Underground Mines Where Permissible Electric Equipment is Required;** |
| **Subpart J** | **Electric Motor Assemblies;** |
| **Subpart K** | **Electric Cables, Signaling Cables, and Cable Splice Kits** |
| **Part 15 (§§ 15.4, 15.8)** | **Requirements for Approval of Explosives and Sheathed Explosive Units** |
| **Part 18 (§§ 18.6, 18.15, 18.53(h), 18.81, 18.82, 18.93, 18.94)** | **Electrical Motor Driven Mine** |

| | |
|---|---|
| | **Equipment and Accessories** |
| **Part 19 (§§ 19.3, 19.13)** | **Electric Cap Lamps** |
| **Part 20 (§§ 20.3, 20.14)** | **Electric Mine Lamps Other Than Standard Cap Lamps** |
| **Part 22 (§§ 22.4, 22.11)** | **Portable Methane Detectors** |
| **Part 23 (§§ 23.3, 23.14)** | **Telephones and Signaling Devices** |
| **Part 27 (§§ 27.4, 27.6, 27.11)** | **Methane-Monitoring Systems** |
| **Part 28 (§§ 28.10, 28.25, 28.30, 28.31)** | **Fuses for Use with Direct Current in Providing Short-Circuit Protection for Trailing Cables in Coal Mines** |
| **Part 33 (§§ 33.6, 33.12)** | **Dust Collectors for Use In Connection with Rock Drilling In Coal Mines** |
| **Part 35 (§§ 35.6, 35.12)** | **Fire-Resistant Hydraulic Fluids** |
| **Part 36 (§§ 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 or authorizing the collection of information.**

The Mine Safety and Health Administration (MSHA) is responsible for the inspection, testing, approval and certification, and quality control of mining equipment and components, materials, instruments, and explosives used in both underground and surface coal, metal, and nonmetal mines. Title 30 C.F.R., Parts 6 through 36 contain procedures by which manufacturers may apply for and have equipment approved as "permissible" for use in mines.

Section 318(c) of the Federal Mine Safety and Health Act of 1977 (Mine Act) defines "'permissible' as applied to (1) equipment used in the operation of a coal mine, means equipment, other than permissible electric face equipment, to which an approval plate, label, or other device is attached as authorized by the Secretary and which meets specifications which are prescribed by the Secretary for the construction and maintenance of such equipment and are designed to assure that such equipment will not cause a mine explosion or a mine fire; (2) explosives, shot firing units, or blasting devices used in such mine, means explosives, shot firing units, or blasting devices which meet specifications which are prescribed by the Secretary, . . .".

In addition, Section 318(i) of the Mine Act states: "'permissible', as applied to electric face equipment, means all electrically operated equipment taken into or used inby the last open crosscut of an entry or a room of any coal mine the electrical parts of which, including, but not limited to, associated electrical equipment, components, and accessories, are designed, constructed, and installed, in accordance with the specifications of the Secretary, to assure that such equipment will not cause a mine explosion or mine fire, and the other features of which are designed and constructed, in accordance with the specifications of the Secretary, to prevent, to the greatest extent possible, other accidents in the use of such equipment; . . ."

Applications for approval or certification are prepared in the required format and submitted by the manufacturer to MSHA's Approval and Certification Center (A&CC). To assure proper application submittal, Standard Application Procedures can be

found at
http://www.msha.gov/techsupp/acc/application/application.htm

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, 15, 18, 19, 20, 22, 23, 27, 28, 33, 35, and 36. MSHA's A&CC 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; and an acceptance is issued for materials and certain other products.

Products that are "approved" under the specific meaning applied to a completely assembled machine or system or to an explosive are required to bear an MSHA marking. Approval of a mining product constitutes a license authorizing the approval-holder to build and distribute the product for use in underground mines, and to advertise the product as "MSHA-approved." The approval-holder accepts the responsibility for constructing or formulating the product in exact accordance with all drawings and specifications that accompany the approval.

MSHA regulations allow other parties to perform mining product testing under certain circumstances. 30 CFR part 6 permits authorized independent laboratories to perform in whole or part the necessary testing and/or evaluation for MSHA product approval. Part 6 also permits manufacturers to have their products approved based on non-MSHA product safety standards. This would only occur after MSHA has determined that such standards are equivalent to MSHA applicable product approval requirements or can be modified to provide at least the same degree of protection provided by the applicable MSHA approval requirements. 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 (§ 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;”

- “a 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 would be completed by the independent laboratory and supplied to the applicant, who would then send it to MSHA as part of its application. The information requested above is needed because MSHA would no longer be 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. Generally, under the circumstances of this proposed rule, 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 would require the data requested in paragraphs (a)(1) through (a)(3) of § 6.10. The costs of the tests and evaluations performed by an independent laboratory would have already occurred before the applicant files an MSHA product approval application. Therefore, the only costs to applicants associated with § 6.10(a)(1) through (a)(3) would be those related to the applicant passing the required information received from the independent laboratory to MSHA.

**Section 6.10(a)(2) Compliance Costs Associated with § 6.10(d):**

If an independent laboratory conducts any additional or repeat testing, then the applicant would 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 § 6.10(a)(2). Information concerning § 6.10(a)(1) and (a)(3) that was sent to MSHA with the original approval application would not have to be sent again as a result of any additional or repeat testing.

**Section 6.10(f)**:

Paragraph (f) of § 6.10 would require that, once the product is approved, the approval holder must notify MSHA of all product defects of which the approval holder is aware. MSHA expects that such defects would occur and be reported very infrequently.

**Part 7:**

Part 7 provides procedures whereby “permissible” products are certified by the applicant and may 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.

MSHA retains the responsibility for evaluating the test results and issuing the approval for all products tested under parts 6 and 7.

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

Title 30 C.F.R. parts 6 through 36 require that an investigation leading to approval or certification will be undertaken by the A&CC only pursuant to a written application accompanied by prescribed drawings and specifications identifying the piece of equipment. This information is used by engineers and scientists to evaluate the design in conjunction with tests

to assure conformance to standards prior to approval for use in mines.

**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.**

The A&CC continues to accept approval applications and other correspondence or information electronically via the Internet or e-mail. 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 e-mail account. Applicants have been electronically submitting applications to the A&CC for over 5 years. Out of the 562 applications received at the A&CC in FY2004, 226 of those were electronically submitted. Since the way the applications are submitted (mail, fax, or e-mail), not the preparation of the applications are impacted by electronic information technology, there is only an insignificant reduction of burden hours.

**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's A&CC is the only place 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.

**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.**

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. Therefore, this information collection does not have a significant impact on a substantial number of

small entities.

**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 a MSHA approval marking on the product which identifies it as approved for use underground. Use of the marking obligates the manufacturer to maintain the quality of the product. 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 underground are in fact safe for use.

**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 the general in 5 C.F.R. § 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 C.F.R. 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

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

**Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years -- even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.**

In accordance with 5 CFR 1320.8 (d), MSHA will publish the proposed information collection requirements in the Federal Register, notifying the public that these information collection requirements are being reviewed in accordance with the Paperwork Reduction Act of 1995, and giving interested persons 60 days to submit comments.

**9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

MSHA has decided not to 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 product’s specifications and performance, as proprietary. Manufacturers' applications, drawings and specifications kept at the A&CC are stored electronically or in a restricted records storage area both accessible only to supervisors and A&CC 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 the

above C.F.R. Parts. The A&CC maintains a high level of security. Access to each of the A&CC's buildings 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 of the A&CC, which facilitates control within secure areas. Employees are issued a security gate access card and a Department of Labor identification card 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 in Item 13 of OMB Form 83-I.**

- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 14.**

The following calculations for the existing requirements are based on the actual number of applications received during Fiscal Year 2004 and the hours per response which 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 will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results

**PART 6 TESTING AND EVALUATION BY INDEPENDENT LABORATORIES AND NON-MSHA PRODUCT SAFETY STANDARDS:**

Under §6.10, Paragraph (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, under the circumstances of the final rule, 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 will have already occurred before the applicant files an MSHA product approval application. Therefore, the only costs to applicants

the independent laboratory to MSHA.

In FY 2004, MSHA received 1 new application under Part 6.

MSHA estimates that a clerical worker, earning $22.04 per hour, will take 15 minutes (0.25 hours) per application to prepare and send the data requested in Paragraphs (a)(1) through (a)(3).

Estimated Burden Hours

| | | |
|---|---|---|
| 1 application x .25 hours | = | .25 hours |
| Total estimated burden hours | = | .25 hours |

Burden Hour Cost

| | | |
|---|---|---|
| .25 hours x $22.04 per hour | = | $6 |

**Section 6.10(a)(2) Compliance Costs Associated with § 6.10(d)**
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 will not be necessary for the applicant to send in the test results to MSHA. Sending additional or repeat testing results to MSHA is covered under § 6.10(a)(2). Information concerning §6.10(a)(1) and

application will not have to be sent again as a result of any additional or repeat testing.

In FY 2004, MSHA received 1 new application under Part 6.

MSHA estimates that a clerical worker, earning $22.04 per hour,

send the test results requested in §6.10(a)(2).

Estimated Burden Hours

| | | |
|---|---|---|
| 1 application x .25 hours | = | .25 hours |
| Total estimated burden hours | = | .25 hours |

Burden Hour Cost

| | | |
|---|---|---|
| .25 hours x $22.04 per hour | = | $6 |

**Section 6.10(f) Notification of Defective Products**

Paragraph (f) of § 6.10 will require that, once the product is approved, the approval holder will have to notify MSHA of all product defects of which the approval holder is aware. MSHA expects that such defects will occur and be reported very infrequently. MSHA estimates that annually one applicant will notify MSHA of a defective approved product. A supervisor

MSHA in writing about a product defect.

Estimated Burden Hours

| | | |
|---|---|---|
| 1 applicant x 1.5 hours | = | 1.5 hours |
| Total estimated burden hours | = | 1.5 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 1.5 hours x $59.13 per hour | = | $ 89 |
| **TOTAL PART 6 BURDEN HOURS:** | **=** | **2.0** |
| **TOTAL PART 6 BURDEN COST:** | **=** | **$ 101** |

**PART 7 TESTING BY APPLICANT OR THIRD PARTY (§§ 7.23, 7.27, 7.28 7.29, 7.43, 7.46, 7.47, 7.49,7.51, 7.63, 7.69, 7.71, 7.83, 7.90, 7.97, 7.105, 7.303,7.306, 7.309, 7.311, 7.403,7.407, 7.408, 7.409)**

**Subpart A**

Under this Subpart, applicants are required to maintain records of testing procedures and results for the products they submit to MSHA for approval for 3 years. 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.

**Subpart B**

In FY 2004, MSHA received 5 new applications and 0 applications for extension for brattice cloth and ventilation tubing under Subpart B. According to manufacturers' estimates, it requires approximately 5.0 hours to complete the application package and 5.0 hours to complete an application for extension package.

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Burden Hours

| | | |
|---|---|---|
| 5 applications x 5.0 hour/application | = | 25 hours |
| *1 application for extension x 5.0 hours/application | = | 5 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 25 hours x $59.13 per hour (average salary and benefits of an engineer) | = | $1,478 |
| 5 hours x $59.13 per hour | = | $ 296 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that 1 manufacturers of brattice cloth or ventilation tubing may need to make such a report once a year at most, and that each manufacturer would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

| | | | |
|---|---|---|---|
| Subpart B: | Total Burden Hours | = | 30 hours |
| | Total Burden Hour Cost | = | $1,774 |

**Subpart C**

In FY 2004, MSHA received 4 new applications, 1 application for extension, and 5 Revised Approval Modification Programs (RAMP) for battery assemblies, under Subpart C. According to manufacturers' estimates, it requires approximately 4.0 hours to complete an application, 4.0 hours to complete an application for extension, and 2.0 hours to complete a RAMP.

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

| | | |
|---|---|---|
| 4 application x 4.0 hours/application | = | 16 hours |
| 1 application for extension x 4.0 hours/application | = | 4 hours |
| 5 RAMP applications x 2.0 hours/application | = | 10 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 16 hours x $59.13 per hour | = | $ 946 |
| 4 hours x $59.13 per hour | = | $ 237 |
| 10 hours x $59.13 per hour | = | $ 591 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that 1 manufacturer of battery assemblies may need to make such a report on the average of 1 time per year, and that each manufacturer would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

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

Burden Hours

| | | |
|---|---|---|
| 4 new applications x 1 checklist x 2 hours | = | 8 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 8 hours x $59.13 per hour | = | $ 473 |

MSHA estimates that it will take only a few seconds to insert a copy of the checklist for every battery assembly sold. Therefore, the cost will be insignificant relative to the cost of developing the checklist.

| | | | |
|---|---|---|---|
| Subpart C: | Total Burden Hours | = | 38 hours |

Total Burden Hour Cost = $2,247

**Subpart D**

MSHA has received no applications 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 approximately 4 hours to prepare a new application package and 2 hours to prepare an application for extension.

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Burden Hours

| | | |
|---|---|---|
| *1 new application x 4 hours | = | 4 hours |
| *1 application for extension x 2 hours | = | 2 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 4 hours x $59.13 per hour | = | $ 237 |
| 2 hours x $59.13 per hour | = | $ 118 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that an approval holder may need to make such a report once a year, and that it would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

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

Burden Hours

*1 new application x 1 checklist x 2 hours = 2 hours

Burden Hour Cost

2 hours x $59.13 per hour = $ 118

MSHA estimates that it will take only a few seconds to insert a copy of the checklist for a blasting unit; therefore, the cost

will be insignificant relative to the cost of developing the checklist.

| | | | |
|---|---|---|---|
| Subpart D: | Total Burden Hours | = | 8 hours |
| | Total Burden Hour Cost | = | $ 473 |

**Subpart E**

In FY 2004, MSHA received 2 new applications, 0 applications for extension, and 0 RAMP applications for approval of new permissible engine models, under Subpart E. The maximum fuel/air ratio tests are performed under §7.87 and the gaseous ventilation tests are performed under §7.88. MSHA estimates that it takes about 43.0 hours, including preparation of an approval checklist, at a cost of $59.13 per hour for manufacturers to prepare and submit the application related to the maximum fuel/air ratio test and the gaseous ventilation rate test for a new permissible engine model.

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Burden Hours

| | | |
|---|---|---|
| 2 new applications x 43.0 hours/application | = | 86 hours |
| *1 application for extensions x 43.0 hours/application | = | 43 hours |
| *1 RAMP applications x 43.0 hours/application | = | 43 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 86 hours x $59.13 per hour | = | $5,085 |
| 43 hours x $59.13 per hour | = | $2,543 |
| 43 hours x $59.13 per hour | = | $2,543 |

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 (0.5 hours) is needed to record particulate test information on the application. The rate per hour to record such information is estimated to be $59.13.

Burden Hours

| | | |
|---|---|---|
| 2 new applications x 0.5 hours/application | = | 1 hour |

Burden Hour Cost

| | | |
|---|---|---|
| 1 hour x $59.13 per hour | = | $ 59 |

In FY 2004, MSHA received 13 new applications, 1 application for extension, and 4 RAMP applications for approval of new non-permissible engine models, under Subpart E. This new non-permissible engine model will incur burden hours for an application to be filed related to tests for a maximum fuel/air ratio (required by § 7.87 of the rule), a gaseous ventilation rate (required by § 7.88 of the rule), and a particulate index (required by § 7.89 of the rule).

MSHA estimates that it takes about 34.5 burden hours, including preparation of an approval checklist, at a cost of $59.13 per hour for a manufacturer to prepare and submit the approval application related to all three tests for a new non-permissible engine model.

Burden Hours

| | | |
|---|---|---|
| 13 new applications x 34.5 hours/application | = | 448.5 hours |
| 1 application for extensions x 34.5 hours/application | = | 34.5 hours |
| 4 RAMP applications x 34.5 hours/application | = | 138 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 448.5 hours x $59.13 per hour | = | $26,520 |
| 34.5 hours x $59.13 per hour | = | $ 2,040 |
| 138.0 hours x $59.13 per hour | = | $ 8,160 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that an approval holder may need to make such a report once a year, and that it would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

| | | | |
|---|---|---|---|
| Subpart E: | Total Burden Hours | = | 794 hours |
| | Total Burden Hour Cost | = | $46,950 |

**Subpart F**

In FY 2004, MSHA received 3 new applications for approval of a power package for a permissible engine model under Subpart F.

Tests are required by § 7.100 - Explosion test; § 7.101 - Surface temperature test; § 7.102 - Exhaust gas cooling efficiency test; § 7.103 - Safety system control test; and § 7.104 - Internal static pressure test.

MSHA estimates that it takes about 43 burden hours including preparation of an approval checklist, at a cost of $59.13 per hour for manufacturers to prepare and submit the application for approval of a power package for a permissible engine model.

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Burden Hours

| | | |
|---|---|---|
| 3 new applications x 43.0 hours/application | = | 129 hours |
| *1 application for extensions x 43.0 hours/application | = | 43 hours |
| *1 RAMP applications x 43.0 hours/application | = | 43 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 129 hours x $59.13 per hour | = | $ 7,628 |
| 43 hours x $59.13 per hour | = | $ 2,543 |
| 43 hours x $59.13 per hour | = | $ 2,543 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that an approval holder may need to make such a report once a year, and that it would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

| | | | |
|---|---|---|---|
| Subpart F: | Total Burden Hours | = | 215 hours |
| | Total Burden Hour Cost | = | $12,714 |

**Subpart J**

In FY 2004, MSHA received 10 new applications, 0 applications for extensions, and 18 RAMP applications for approval of motor assemblies, under Subpart J. According to manufacturers' estimates, it requires approximately 8.0 hours on the preparation of a new application package, 6 hours to prepare an application for extension, and 2 hours to prepare a RAMP application.

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Burden Hours

| | | |
|---|---|---|
| 10 new applications x 8.0 hours/application | = | 80 hours |
| *1 applications for extensions x 6.0 hours/application | = | 6 hours |
| 18 RAMP applications x 2.0 hours/application | = | 36 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 80 hours x $59.13 per hour | = | $4,730 |
| 6 hours x $59.13 per hour | = | $ 355 |
| 36 hours x $59.13 per hour | = | $2,129 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that an approval holder may need to make such a report once a year, and that it would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

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

Burden Hours

| | | |
|---|---|---|
| 10 new applications x 1 checklist x 2 hours | = | 20 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 20 hours x $59.13 per hour | = | $ 1,183 |

MSHA estimates that it will take only a few seconds to insert a copy of the checklist for every motor sold. Therefore, the cost will be insignificant relative to the cost of developing the checklist.

| | | | |
|---|---|---|---|
| Subpart J: | Total Burden Hours | = | 142 hours |
| | Total Burden Hour Cost | = | $8,397 |

**Subpart K**

In FY 2004, MSHA received 17 new applications and 5 applications for extensions for approval of electric and signaling cables under Subpart K. MSHA estimates that a cable manufacturer would spend 6.0 hours preparing an initial application and 4.0 hours to prepare an application for extension.

Burden Hours

| | | |
|---|---|---|
| 17 new applications x 6.0 hour/application | = | 102 hours |
| 5 applications for extension x 6.0 hours/application | = | 30 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 102 hours x $59.13 per hour | = | $6,031 |
| 30 hours x $59.13 per hour | = | $1,774 |

In FY 2004, MSHA received 2 new applications and 5 applications for extensions for approval of cable splice kits under Subpart K. MSHA estimates that a cable manufacturer would spend 6.0 hours preparing an initial application and 4.0 hours to prepare an application for extension.

Burden Hours

| | | |
|---|---|---|
| 2 new applications x 6.0 hour/application | = | 12 hours |
| 5 applications for extension x 4.0 hour/application | = | 20 hours |

Burden Hour Cost

| | | |
|---|---|---|
| 12 hours x $59.13 per hour | = | $ 710 |
| 20 hours x $59.13 per hour | = | $1,183 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that an approval holder may need to make such a report once a year, and that it would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

| | | | |
|---|---|---|---|
| Subpart K: | Total Burden Hours | = | 164 hours |
| | Total Burden Hour Cost | = | $9,698 |

| | | |
|---|---|---|
| **TOTAL PART 7 BURDEN HOURS:** | **=** | **1,391** |
| **TOTAL PART 7 BURDEN COST:** | **=** | **$82,253** |

**PART 15 REQUIREMENTS FOR APPROVAL OF EXPLOSIVES AND SHEATHED EXPLOSIVES UNITS: (§§ 15.4, 15.8)**

In FY 2004, MSHA received no new acceptances and one application for acceptance extension for Approval of Explosives and Sheathed Explosives Units. According to manufacturers' estimates, it requires approximately 5 hours to complete the application package. A Part 15 Acceptance is a document issued for products meeting 30 C.F.R. requirements for flame resistance and other properties as confirmed by test and evaluation. A Part 15 Acceptance Extension is a document issued when a previously accepted product is modified by the manufacturer or coal mine operator and, as modified, continues to meet requirements of 30 C.F.R.

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

| Burden hours | | |
|---|---|---|
| *1 acceptance x 5.0 hours/application | = | 5 hours |
| 1 acceptance extension x 5.0 hours/application | = | 5 hours |

| Burden hour cost | | |
|---|---|---|
| 5 hours x $59.13 per hour | = | $296 |
| 5 hours x $59.13 per hour | = | $296 |

Approval holders are required to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that an approval holder may need to make such a report once a year, and that it would require approximately 15 minutes (0.25 hours) to make a report by telephone or letter. This is considered to be an insignificant cost.

| | | |
|---|---|---|
| **TOTAL PART 15 BURDEN HOURS:** | **=** | **10** |
| **TOTAL PART 15 BURDEN COST:** | **=** | **$592** |

**PART 18 - ELECTRICAL MOTOR DRIVEN MINE EQUIPMENT AND ACCESSORIES: (§§18.6, 18.15, 18.53(h), 18.81, 18.82, 18.93, 18.94)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated Burden hours

| | | |
|---|---|---|
| 20 approval applications x 14 hours | = | 280 hours |
| 25 approval extensions x 5 hours | = | 125 hours |
| 35 field modification applications x 5 hours | = | 175 hours |
| 1 certification application x 14 hours | = | 14 hours |
| *1 certification extensions x 5 hours | = | 5 hours |
| 1 permit application x 5 hours | = | 5 hours |
| 15 simplified certifications x 7 hours | = | 105 hours |
| *1 simplified cert extensions x 2.5 hours | = | 3 hours |
| 284 RAMP applications x 1 hour | = | 284 hours |
| Total estimated burden hours | = | 996 hours |

Burden hour cost

996 hours x $59.13 per hour = $58,893

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: (§§ 19.3, 19.13)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated burden hours

| | | |
|---|---|---|
| 1 approval application x 14 hours | = | 14 hours |
| *1 approval extensions x 5 hours | = | 5 hours |
| 3 RAMP applications x 1 hour | = | 3 hours |
| Total estimated burden hours | = | 22 hours |

Burden hour cost

22 hours x $59.13 per hour = $ 1,301

**PART 20 - ELECTRIC MINE LAMPS OTHER THAN STANDARD CAP LAMPS: (§§ 20.3, 20.14)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated Burden hours

| | | |
|---|---|---|
| 3 approval applications x 14 hours | = | 42 hours |
| *1 approval extensions x 5 hours | = | 5 hours |
| 2 RAMP applications x 1 hour | = | 2 hours |
| Total estimated burden hours | = | 49 hours |

Burden hour cost

| | | |
|---|---|---|
| 49 hours x $59.13 per hour | = | $ 2,897 |

**PART 22 - PORTABLE METHANE DETECTOR: (§§22.4, 22.11)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated burden hours

| | | |
|---|---|---|
| 3 approval applications x 14 hours | = | 42 hours |
| *1 approval extension x 5 hours | = | 5 hours |
| 13 RAMP applications x 1 hour | = | 13 hours |
| Total estimated burden hours | = | 60 hours |

Burden hour cost

| | | |
|---|---|---|
| 60 hours x $59.13 per hour | = | $ 3,548 |

**PART 23 - TELEPHONES AND SIGNALING DEVICES: (§§ 23.3, 23.14)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated burden hours

| | | |
|---|---|---|
| 1 approval applications x 14 hours | = | 14 hours |
| *1 approval extension x 5 hours | = | 5 hours |
| 4 RAMP applications x 1 hour | = | 4 hours |
| Total estimated burden hours | = | 23 hours |

Burden hour cost

| | | |
|---|---|---|
| 23 hours x $59.13 per hour | = | $ 1,360 |

**PART 27 - METHANE MONITORING SYSTEMS: (§§ 27.4, 27.6, 27.11)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated burden hours

| | | |
|---|---|---|
| 1 certification application x 14 hours | = | 14 hours |
| *1 certification extensions x 5 hours | = | 5 hours |
| 2 RAMP applications x 1 hour | = | 2 hours |
| Total estimated burden hours | = | 21 hours |

Burden hour cost

| | | |
|---|---|---|
| 21 hours x $59.13 per hour | = | $ 1,242 |

**PART 28 - FUSES FOR USE WITH DIRECT CURRENT: (§§ 28.10, 28.25, 28.30, 28.31)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated burden hours

| | | |
|---|---|---|
| *1 approval application x 14 hours | = | 14 hours |

| | | |
|---|---|---|
| *1 approval extension x 5 hours | = | 5 hours |
| *1 RAMP application x 1 hour | = | 1 hour |
| Total estimated burden hours | = | 20 hours |

Burden hour cost

| | | |
|---|---|---|
| 20 hours x $59.13 per hour | = | $ 1,183 |

**PART 33 - DUST COLLECTORS FOR USE IN CONNECTION WITH ROCK DRILLING IN COAL MINES: (§§ 33.6, 33.12)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated burden hours

| | | |
|---|---|---|
| 1 approval applications x 14 hours | = | 14 hours |
| *1 approval extension x 5 hours | = | 5 hours |
| *1 RAMP applications x 1 hours | = | 1 hour |
| Total estimated burden hours | = | 20 hours |

Burden hour cost

| | | |
|---|---|---|
| 20 hours x $59.13 per hour | = | $ 1,183 |

**PART 35 - FIRE RESISTANT HYDRAULIC FLUIDS: (§§ 35.6, 35.12)**

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results.

Estimated burden hours

| | | |
|---|---|---|
| 5 approval applications x 24 hours | = | 120 hours |
| 1 approval extension x 24 hours | = | 24 hours |
| Total estimated burden hours | = | 144 hours |

Burden hour cost

| | | |
|---|---|---|
| 144 hours x $59.13 per hour | = | $ 8,515 |

**PART 36 - APPROVAL REQUIREMENTS FOR PERMISSIBLE MOBILE DIESEL-POWERED TRANSPORTATION EQUIPMENT: (§§ 36.6, 36.12)**

*Instances where MSHA did not receive any applications, an estimate of one application will be used.

Salary figures used are based on data obtained from the U.S. Coal Mine Salaries, Wages, & Benefits - 2003 Survey Results:

Estimated burden hours

| | | |
|---|---|---|
| 1 approval application x 14 hours | = | 14 hours |
| 1 approval extension x 5 hours | = | 5 hours |
| 2 safety component certifications x 5 hours | = | 10 hours |
| 1 RAMP application x 1 hours | = | 1 hour |
| Total estimated burden hours | = | 30 hours |

Burden hour cost

| | | |
|---|---|---|
| 30 hours x $59.13 per hour | = | $ 1,774 |

| | | |
|---|---|---|
| **PARTS 6 THROUGH 36 GRAND TOTAL BURDEN HOURS** | **=** | **2,788** |
| **PARTS 6 THROUGH 36 GRAND TOTAL BURDEN COST** | **=** | **$164,842** |

| Cite Reference | Total Respondents | Frequency | Total Responses | Burden Hours |
|---|---|---|---|---|
| Part 6 | 1 | On Occasion | 2 | 2 |
| Part 7 | 48 | On Occasion | 120 | 1,391 |
| Part 15 | 1 | On Occasion | 2 | 10 |
| Part 18 | 114 | On Occasion | 383 | 996 |
| Part 19 | 2 | On Occasion | 5 | 22 |
| Part 20 | 3 | On Occasion | 6 | 49 |
| Part 22 | 4 | On Occasion | 17 | 60 |

| | | | | |
|---|---|---|---|---|
| Part 23 | 4 | On Occasion | 6 | 23 |
| Part 27 | 3 | On Occasion | 4 | 21 |
| Part 28 | 1 | On Occasion | 3 | 20 |
| Part 33 | 1 | On Occasion | 3 | 20 |
| Part 35 | 4 | On Occasion | 6 | 144 |
| Part 36 | 4 | On Occasion | 5 | 30 |
| **Totals** | **190** | | **562** | **2,788** |

*Part 6 and 28 are using an estimate of 1 for respondents.

**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 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.**

30 C.F.R., Part 5 - Fees for Testing, Evaluation, and Approval of Mining Products: § 5.10 states “This part establishes a system under which MSHA charges a fee for services performed in connection with testing, evaluation and approval of products manufactured for use in underground mines.” These fees apply to all parts and subparts mentioned in this report.

Under the 2004 fee schedule issued pursuant to 30 C.F.R. Part 5, MSHA charges $63 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. Each service provided for a group of similar products is assessed an hourly rate to cover direct and indirect costs. 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 A&CC, facility operating costs and amortization and depreciation of facilities and equipment. MSHA also includes a support factor when determining costs to account for support personnel (computer tracking, clerical, records control, document filing and retrieval). Support hours are prorated over investigative hours for each specific program area to derive a multiplication factor for that program area (1.884, 1.850, or 1.682).

**PART 6 TESTING AND EVALUATION BY INDEPENDENT LABORATORIES AND NON-MSHA PRODUCT SAFETY STANDARDS:**

In FY 2004 MSHA received one application to be evaluated under Part 6 requirements. This application was processed under Part 18. Therefore, the cost to the applicant for MSHA’s evaluation is included under Part 18 in this document.

**PART 7 TESTING BY APPLICANT OR THIRD PARTY:**

**Subpart B**

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 2004. 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 estimates will be documented with an

asterisk (*). The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

| | |
|---|---|
| 5 new applications x 4 hours x $63 per hour x 1.682 | = $2,119 |
| *1 application for extension x 2 hours x $63 per hour x 1.682 | = $ 212 |

In FY 2004, MSHA surveyed 9 manufactures and conducted 36 brattice cloth and 2 ventilation tubing audits. The samples are destroyed during the testing process. The estimated cost to the approval holders for providing these products is as follows:

| | |
|---|---|
| 36 brattice cloth samples x $25 per sample | = $ 900 |
| 2 ventilation tubing samples x $100 per sample | = $ 200 |

**Subpart C**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing battery assembly investigations in FY 2004. The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

| | |
|---|---|
| 4 new applications x 8.0 hours x $63 per hour x 1.884 | = $3,798 |
| 1 extension x 6.5 hours x $63 per hour x 1.884 | = $ 772 |
| 5 RAMP applications x 3.5 x $63 per hour x 1.884 | = $2,077 |

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.

**Subpart D**

MSHA has not received any applications for blasting units for several years and does not expect to receive any in the coming year. 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 estimates will be documented with an asterisk (*). The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

| | |
|---|---|
| *1 new application x *8.0 hours x $63 per hour x 1.884 | = $ 950 |
| *1 extension x *6.5 hours x $63 per hour x 1.884 | = $ 772 |

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.

**Subpart E**
**(PERMISSIBLE ENGINE MODELS)**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing permissible engine investigations in FY 2004. 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 estimates will be documented with an asterisk (*). The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

| | |
|---|---|
| 2 new applications x 35.6 hours x $63 x 1.850 | = $ 8,298 |
| *1 extension x 4.0 hours x $63 x 1.850 | = $ 466 |
| *1 RAMP applications x 2.3 x $63 per hour x 1.850 | = $ 268 |

MSHA estimates the cost for these tests on a new permissible engine model to be about $15,000. (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.)

2 applications per year x $15,000 = $30,000

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.

2 application per year x $7,500 = $15,000

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.

**Subpart E**
**(NON-PERMISSIBLE ENGINE MODELS)**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing non-permissible engine investigations in FY 2004. The cost to applicants for

MSHA's evaluation of their applications for approval is calculated as follows:

| | |
|---|---|
| 13 new applications x 35.6 hours x $63 x 1.850 | = $53,939 |
| 1 extension x 4.0 hours x $63 x 1.850 | = $ 466 |
| 4 RAMP applications x 2.3 x $63 per hour x 1.850 | = $ 1,072 |

Non-permissible engines are required to have a maximum fuel/air ratio test (required by § 7.87), a gaseous ventilation test (required by § 7.88), and a particulate index test (required by § 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 $22,500.

| | |
|---|---|
| 13 applications per year x $22,500 | = $292,500 |

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.

## Subpart F
## (NEW 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 2004. 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 estimates will be documented with an asterisk (*). The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

| | |
|---|---|
| 3 new applications x 35.6 hours x $63 x 1.850 | = $12,448 |
| *1 extension x 4.0 hours x $63 x 1.850 | = $ 466 |
| *1 RAMP applications x 2.3 x $63 per hour x 1.850 | = $ 268 |

Tests on power packages for new permissible engine models may be performed by a third party. These tests will be done under § 7.100 - Explosion test; § 7.101 - Surface temperature test; § 7.102 - Exhaust gas cooling efficiency test; § 7.103 - Safety system control test; and § 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 $25,000.

3 applications per year x $25,000 = $75,000

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 blasting unit in order to audit it.

**Subpart J**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing motor assembly investigations in FY 2004. 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 estimates will be documented with an asterisk (*). The cost to applicants for MSHA's evaluations of their applications for approval is calculated as follows:

10 new applications x 22.0 hours x $63 per hour x 1.884 = $26,112
*1 extension x 8.0 hours x $63 per hour x 1.884 = $ 950
18 RAMP applications x 3.5 hours x $63 per hour x 1.884 = $ 7,478

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

**Subpart K**

In order to determine costs under this section, MSHA calculated the average number of hours spent processing cable investigations in FY 2004. The cost to applicants for MSHA's evaluations of their applications for approval is calculated as follows:

17 new applications x 3.7 hours x $63 x 1.682 = $ 6,665
5 extensions x 2.8 hours x $63 x 1.682 = $ 1,484

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

17 new applications x $750 = $ 12,750
5 extensions x $750 = $ 3,750

In order to determine costs under this section, MSHA calculated the average number of hours spent processing splice kit

investigations in FY 2004. The cost to applicants for MSHA's evaluation of their applications for approval is calculated as follows:

| | |
|---|---|
| 2 new application x 3.7 hours x $63 per hour x 1.682 | = $ 784 |
| 5 extensions x 2.8 hours x $63 per hour x 1.682 | = $ 1,484 |

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.

| | |
|---|---|
| 2 new applications x $750 | = $ 1,500 |
| 5 extensions x $750 | = $ 3,750 |

In FY 2004, MSHA conducted 29 cable or splice kit audits. The estimated cost to the approval holders for providing these products to MSHA is as follows:

| | |
|---|---|
| 14 cable samples x $150 per sample | = $ 2,100 |
| 4 splice kit sample x $150 per sample | = $ 600 |
| 11 signaling cable samples x $150 per sample | = $ 1,650 |
| **PART 7 TOTAL COST BURDEN** | **= $573,048** |

**PART 15 REQUIREMENTS FOR APPROVAL OF EXPLOSIVES AND SHEATHED EXPLOSIVES UNITS:**

In FY 2004, MSHA received 0 new acceptances and one application for acceptance extension of Approval of Explosives and Sheathed Explosives Units. MSHA estimates that it takes approximately 5 hours to evaluate an initial application for approval and 2 hours to evaluate an application for extension.

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 estimates will be documented with an asterisk (*).

| | |
|---|---|
| *1 new applications x 56.9 hours x $63 x 1.682 | = $ 6,029 |
| 1 acceptance extension x 3.0 hours x $63 x 1.682 | = $ 318 |

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 2004, MSHA conducted no explosives or sheathed explosives units audits. If audits were performed, the samples would be destroyed during the testing process.

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 estimates will be documented with an asterisk (*).

| | |
|---|---|
| *1 Explosives x $25 per sample | = $ 25 |
| *1 Sheathed Explosives units x $100 per sample | = $ 100 |
| **PART 15 TOTAL COST BURDEN** | **= $ 6,472** |

**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 uses takes in 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.

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 estimates will be documented with an asterisk (*).

(Unlike question 12 the following approvals and acceptances are broken out because they are processed by different program areas with different support factors.)

| | |
|---|---|
| 17 approval applications x 61.0 hours x $63 x 1.884 | = $123,084 |
| 3 acceptance applications x 5.1 hours x $63 x 1.682 | = $ 1,621 |
| *1 approval extension x 33.0 hours x $63 x 1.884 | = $ 3,917 |
| 25 acceptance extensions x 3.0 hours x $63 x 1.682 | = $ 7,947 |
| 35 field modification applications x 6.0 hours x $63 x 1.884 | = $ 24,925 |

| | |
|---|---|
| 1 certification application x 49.0 hours x $63 x 1.884 | = $ 5,816 |
| 1 certification extensions x 18.0 hours x $63 x 1.884 | = $ 2,136 |
| 1 permit application x 11.0 hours x $63 x 1.884 | = $ 1,306 |
| 15 simplified certification applications x 25.0 hours x $63 x 1.884 | = $ 44,510 |
| *1 simplified certification extension x 16 hours x $63 x 1.884 | = $ 1,899 |
| 284 RAMP applications x 4.8 hours x $63 x 1.884 | = $161,801 |
| **PART 18 TOTAL COST BURDEN** | **= $378,962** |

**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 in 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.

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 estimates will be documented with an asterisk (*).

| | |
|---|---|
| 1 approval application x 54.3 hours x $63 x 1.884 | = $ 6,445 |
| *1 approval extension x 54.3 hours x $63 x 1.884 | = $ 6,445 |
| 3 RAMP applications x 18.6 hours x $63 x 1.884 | = $ 6,623 |
| **PART 19 TOTAL COST BURDEN** | **= $ 19,513** |

**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 in 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.

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 estimates will be documented with an asterisk (*).

| | |
|---|---|
| 3 approval applications x 30.0 hours x $63 x 1.884 | = $ 10,682 |
| *1 approval extension x 30.0 hours x $63 x 1.884 | = $ 3,561 |
| 2 RAMP applications x 12.0 hours x $63 x 1.884 | = $ 2,849 |
| **PART 20 TOTAL COST BURDEN** | **= $ 17,092** |

**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 in 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.

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 estimates will be documented with an asterisk (*).

3 approval applications x 157.3 hours x $63

x 1.884 = $ 56,011
*1 approval extension x 157.3 hours x $63
x 1.884 = $ 18,670
13 RAMP applications x 3.5 hours x $63
x 1.884 = $ 5,401

**PART 22 TOTAL COST BURDEN = $ 80,082**

**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 in 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.

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 estimates will be documented with an asterisk (*).

1 approval applications x 40.4 hours x $63
x 1.884 = $ 4,795
*1 extension application x 49.5 hours x $63
x 1.884 = $ 5,875
4 RAMP applications x 6.5 hours x $63
x 1.884 = $ 3,086

**PART 23 TOTAL COST BURDEN = $ 13,756**

**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 in 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.

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 estimates will be documented with an asterisk (*).

| | |
|---|---|
| 1 certification application x 80.0 hours x $63 x 1.884 | = $ 9,495 |
| *1 certification extension x 40.0 hours x $63 x 1.884 | = $ 4,748 |
| 2 RAMP applications x 4.0 hours x $63 x 1.884 | = $ 950 |
| **PART 27 TOTAL COST BURDEN** | **= $ 15,193** |

**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 in 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.

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 estimates will be documented with an asterisk (*).

| | |
|---|---|
| *1 approval application x 71.0 hours x $63 x 1.884 | = $ 8,427 |
| *1 extension application x 40.0 hours x $63 x 1.884 | = $ 4,748 |

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 |
| **PART 28 TOTAL COST BURDEN** | **= $ 29,175** |

**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 in 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.

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 estimates will be documented with an asterisk (*).

| | |
|---|---|
| 1 approval applications x 52.0 hours x $63 x 1.850 | = $ 6,061 |
| *1 approval extension x 25.0 hours x $63 x 1.850 | = $ 2,914 |
| *1 RAMP applications x 3.5 hours x $63 x 1.850 | = $ 408 |

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 |
| **PART 33 TOTAL COST BURDEN** | **= $ 10,383** |

**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 in 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.

| | |
|---|---|
| 5 approval applications x 23.1 hours x $63 x 1.682 | = $ 12,239 |
| 1 approval extension x 19.3 hours x $63 x 1.682 | = $ 2,045 |
| **PART 35 TOTAL COST BURDEN** | **= $ 14,284** |

**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 in 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 approval application x 21.4 hours x $63 x 1.850 | = $ 2,494 |
| 1 extension application x 7.8 x $63 x 1.850 | = $ 909 |
| 2 safety component certification applications x 10.0 hours x $63 x 1.850 | = $ 2,331 |
| 1 RAMP application x 4.0 hours x $63 x 1.850 | = $ 466 |
| **PART 36 TOTAL COST BURDEN** | **= $ 6,200** |
| **GRAND TOTAL COST BURDEN** | **= $1,164,160** |

| Cite/ Reference | Burden Costs |
|---|---|
| Part 6 | -0- |
| Part 7 | $573,048 |
| Part 15 | 6,472 |
| Part 18 | 378,962 |
| Part 19 | 19,513 |
| Part 20 | 17,092 |
| Part 22 | 80,082 |
| Part 23 | 13,756 |
| Part 27 | 15,193 |
| Part 28 | 29,175 |
| Part 33 | 10,383 |
| Part 35 | 14,284 |
| Part 36 | 6,200 |
| **TOTALS** | **$1,164,160.00** |

**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 C.F.R. Part 6 through 36 are those related to post-approval audits. These audits are conducted in MSHA laboratories by lab personnel or at manufacturing or distribution sites by Mining Equipment

Compliance Specialists. The costs to conduct these audits are as follows.

MSHA estimates that its cost to have a Mining Equipment Compliance Specialist travel to a manufacturing or distribution site and perform a post-approval audit in FY 2004 on permissible equipment was $69,920 or about $95 per audit. This includes both salary and travel expenses. In FY 2004, MSHA conducted 736 post-approval audits in the field on permissible equipment. These post-approval audits are broken out according to Title 30, C.F.R. Parts 07 through 36. There were an additional 119 audits performed in-house (labor cost, associated testing, and follow-up; without any travel costs). Any or all follow-up activity related to the completion of the audit is included in this estimate.

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 Mine Equipment compliance Specialist to be $34 per hour.

**Part 7, Subpart B – Brattice Cloth and Ventilation Tubing:**

MSHA estimates that it would take a laboratory technician approximately 4.7 hours to test a sample of brattice cloth and 4.7 hours to test a sample of ventilation tubing.

46 brattice cloth samples x 4.7 hours per sample
x $34 per hour = $ 7,351

2 ventilation tubing samples x 4.7 hours per sample
x $34 per hour = $ 320

**Part 7, Subpart C – Battery Assemblies:**

None were performed in FY2004.

**Part 7, Subpart D – Multiple-Shot Blasting Units:**

None were performed in FY2004.

**Part 7, Subpart E – Diesel Engines:**

**Permissible Diesel Engines**

2 audits x 3.0 hours x $34 per hour = $ 204

**Non-Permissible Diesel Engines**

23 audits x 5.0 hours x $34 per hour = $ 3,910

Part 7, Subpart F – Diesel Power Packages:

1 audit x 28.0 hours x $34 per hour = $ 952

**Part 7, Subpart J – Electric Motor Assemblies:**

MSHA estimates that its cost to have a Mining Equipment Compliance Specialist travel to a manufacturing or distribution site and perform a post-approval audit on a motor assembly is $100. This includes both salary and travel expenses. Motor assembly audits require significantly more time than other field audits.

5 motor assembly audits x 6.3 hours per audit
x $34 per hour + 5 x $100 per audit = $ 1,571

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

16 cable samples x 4.7 hours per sample
x $34 per hour = $ 2,557

5 splice kit samples x 4.7 hours per sample
x $34 per hour = $ 799

13 signaling cable samples x 4.7 hours per sample
x $34 per hour = $ 2,077

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

531 audits x $95 = $50,445

**Part 19 Electric Cap Lamps:**

None were performed in FY2004.

**Part 22 Portable Methane Detectors:**

3 audits x $95 = $ 285

**Part 23 Telephones and Signaling Devices:**

116 audits x $95 = $11,020

**Part 27 Methane Monitoring Systems:**

4 audits x $95 = $ 380

**Part 28 Fuses:**

6 audits x 8.4 hours per audit x $34 per hour = $ 1,714

**Part 36 Mobile Diesel Powered Transportation Equipment for Gassy Non-coal Mines and Tunnels:**

81 audits x $95 = $ 7,695

**TOTAL COST TO FEDERAL GOVERNMENT FOR ALL ONGOING PRODUCT AUDIT PROGRAMS: = $91,280**

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

Paperwork package 1219-0066 was originally prepared for 30 CFR parts 15 through 36. As new programs were introduced a paperwork package was produced. Paperwork package 1219-0100 contained burden information for part 7, Subparts A-D, and J-K. Paperwork package 1219-0116 contained burden information for High-Voltage Longwall Equipment §18.53 (h). Paperwork package 1219-0119 contained burden information for part 7, Subparts E and F. The most recent paperwork package produced was 1219-0136, which contains burden information for part 6. In an effort to streamline ICR submissions, all of the aforementioned paperwork packages have been combined with the original 1219-0066 paperwork package. Overall, this will allow for a more efficient and accurate comparison of burden hours in future packages. There were no significant program changes since any of the last reports that are have now been combined.

There was a decrease of 1,060 burden hours (3,848 to 2,788). The 3,848 decrease is not an accurate reflection of burden hours due to the combination of several packages.

There was a decrease of 904 responses (1,466 to 562); again, this is not an accurate reflection of applications received due to the combining of packages. The figures contained in previous packages were calculated differently.

These differences have resulted in a significant increase of burden cost ($710,000 to $1,164,160). Many of these differences are due to some program areas not receiving any new applications, and therefore, estimated hours in previous submissions. The

current package was able to use actual hours based on the receipt of new applications. Additionally, many of the hours estimated in calculating burden hours of the previous package were not realistic; therefore, resulting in greatly under estimated burden costs in the previous submissions. The adjustments for this package reflect a more realistic projected cost.

The adjustments made in this current package more accurately and thoroughly depict burden hours and cost.

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

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

There are no exceptions to the certification statement.

## B. Collection of Information Employment Statistical Methods

**The agency should be prepared to justify its decision not to use statistical methods in any case where such methods might reduce burden or improve accuracy of results. When Item 17 on the Form OMB 83-I is checked "Yes", the following documentation should be included in the Supporting Statement to the extent that it applies to the methods proposed:**

**1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods 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.**

**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.**

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

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

# An Act

SEC. 318. For the purpose of this title and title II of this Act, the term--

(c) "permissible" as applied to--

(1) equipment used in the operation of a coal mine, means equipment, other than permissible electric face equipment, to which an approval plate, label, or other device is attached as authorized by the Secretary and which meets specifications which are prescribed by the Secretary for the construction and maintenance of such equipment and are designed to assure that such equipment will not cause a mine explosion or a mine fire,
(2) explosives, shot firing units, or blasting devices used in such mine, means explosives, shot firing units, or blasting devices which meet specifications which are prescribed by the Secretary, and
(3) the manner of use of equipment or explosives, shot firing units, and blasting devices, means the manner of use prescribed by the Secretary;

(i) "permissible" as applied to electric face equipment means all electrically operated equipment taken into or used inby the last open crosscut of an entry or a room of any coal mine the electrical parts of which, including, but not limited to, associated electrical equipment, components, and accessories, are designed, constructed, and installed, in accordance with the specifications of the Secretary, to assure that such equipment will not cause a mine explosion or mine fire, and the other features of which are designed and constructed, in accordance with the specifications of the Secretary, to prevent, to the greatest extent possible, other accidents in the use of such equipment; and the regulations of the Secretary or the Director of the Bureau of Mines in effect on the operative date of this title relating to the requirements for investigation, testing, approval, certification, and acceptance of such equipment as permissible shall continue in effect until modified or superseded by the Secretary, except that the Secretary shall provide procedures, including, where feasible, testing, approval, certification, and acceptance in the field by an authorized representative of the Secretary, to facilitate compliance by an operator with the requirements of section 305(a) of this title within the periods prescribed therein;

[Code of Federal Regulations]
[Title 30, Volume 1]
[Revised as of July 1, 2004]
From the U.S. Government Printing Office via GPO Access
[CITE: 30CFR6.10]

TITLE 30--MINERAL RESOURCES

CHAPTER I--MINE SAFETY AND HEALTH ADMINISTRATION, DEPARTMENT OF LABOR

PART 6_TESTING AND EVALUATION BY INDEPENDENT LABORATORIES AND NON-MSHA PRODUCT SAFETY STANDARDS--Table of Contents

Sec. 6.10 Use of independent laboratories.

(a) 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:

(1) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(2) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(3) Identification of components or features of the product that are critical to the safety of the product; and

(4) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by the applicable part under this chapter.

(b) Product testing and evaluation performed by independent laboratories for purposes of MSHA approval must comply with the applicable MSHA product approval requirements.

(c) Product testing and evaluation must be conducted or witnessed by the laboratory's personnel.

(d) After review of the information required under paragraphs (a)(1) through (a)(4) of this section, MSHA will notify the applicant if additional information or testing is required. The applicant must provide this information, arrange any additional or repeat tests and notify MSHA of the location, date, and time of the test(s). MSHA may observe any additional testing conducted by an independent laboratory. Further, MSHA may decide to conduct the additional or repeated tests at the applicant's expense. The applicant must supply any additional components necessary for testing and evaluation.

(e) Upon request by MSHA, but not more than once a year, except for cause, approval holders of products approved based on independent laboratory testing and evaluation must make such products available for post-approval audit at a mutually agreeable site at no cost to MSHA.

(f) Once the product is approved, the approval holder must notify MSHA of all product defects of which they become aware.

## Subpart B_Brattice Cloth and Ventilation Tubing

### Sec. 7.23 Application requirements.

(a) Brattice cloth. A single application may address two or more products if the products differ only in: weight of the finished product; weight or weave of the same fabric or scrim; or thickness or layers of the same film. Applications shall include the following information:

(1) Trade name.

(2) Product designations (for example, style and code number).

(3) Color.

(4) Type of brattice (for example, plastic or jute).

(5) Weight of finished product.

(6) Film: type, weight, thickness, supplier, supplier's stock number or designation, and percent of finished product by weight.

(7) Scrim: Type, denier, weight, weave, the supplier, supplier's stock number or designation, and percent of finished product by weight.

(8) Adhesive: type, supplier, supplier's stock number or designation, and percent of finished product by weight.

(b) Flexible ventilation tubing. Applications shall include the product description information in paragraph (a) of this section and list the type of supporting structure, if applicable; inside diameters; and configurations.

(c) Rigid ventilation tubing. A single application may address two or more products if the products differ only in diameters, lengths, configuration, or average wall thickness. Applications shall include the following information:

(1) Trade name.

(2) Product designations (for example, style and code numbers).

(3) Color.

(4) Type of ventilation tubing (for example, fiberglass, plastic, or polyethylene).

(5) Inside diameter, configuration, and average wall thickness.

(6) Suspension system (for example, metal hooks).

(7) Base material: type, supplier, the supplier's stock number, and percent of finished product by weight.

(8) Resin: type, supplier, the supplier's stock number, and percent of finished product by weight.

(9) Flame retardant, if added during manufacturing: type, supplier, the supplier's stock number, and percent of finished product by weight.

### Sec. 7.27 Test for flame resistance of brattice cloth.

(a) Test procedures. (1) Prepare 6 samples of brattice cloth 40 inches wide by 48 inches long.

(2) Prior to testing, condition each sample for a minimum of 24 hours at a temperature of 70<PLUS-MINUS10 [deg]F (215.5 [deg]C) and a relative humidity of 5510%.

(3) For each test, suspend the sample in the gallery by wrapping the brattice cloth around the rod and clamping each end and the center. The brattice cloth must hang 4 inches from the gallery floor.

(4) Use a front exhaust system to remove smoke escaping from the gallery. The exhaust system must remain on during all testing, but not affect the air flow in the gallery.

(5) Set the methane-fueled impinged jet burner to yield a flame height of 12 inches as measured at the outermost tip of the flame.

(6) Apply the burner to the front lower edge of the brattice cloth and keep it in contact with the material for 25 seconds or until 1 foot of material, measured horizontally, is consumed, whichever occurs first. If the material shrinks during application of the burner flame, move the burner flame to maintain contact with 1 foot of the material. If melting material might clog the burner orifices, rotate the burner slightly during application of the flame.

(7) Test 3 samples in still air and 3 samples with an average of 125 ft./min. of air flowing past the sample.

(8) Record the propagation length and duration of burning for each of the 6 samples. The duration of burning is the total burning time of the specimen during the flame test. This includes the burn time of any material that falls on the floor of the test gallery during the igniting period. However, the suspended specimen is considered burning only after the burner is removed. Should the burning time of a suspended specimen and a specimen on the floor coincide, count the coinciding burning time only once.

(9) Calculate the average duration of burning for the first 3 samples (still air) and the second 3 samples (125 ft./min. air flow).

(b) Acceptable performance. The brattice cloth shall meet each of the following criteria:

(1) Flame propagation of less than 4 feet in each of the six tests.

(2) An average duration of burning of less than 1 minute in both groups of three tests.

(3) A duration of burning not exceeding two minutes in each of the six tests.

Sec. 7.28 Test for flame resistance of rigid ventilation tubing.

(a) Test procedures. (1) Prepare 6 samples of ventilation tubing 48 inches in length with all flared or thickened ends removed. Any sample with a cross-sectional dimension greater than 24 inches must be tested in a 24-inch size.

(2) For each test, suspend the sample in the center of the gallery by running a wire through the 48-inch length of tubing.

(3) Use a front exhaust system to remove smoke escaping from the gallery. The exhaust system must remain on during all testing but not affect the air flow in the gallery.

(4) Set the methane-fueled impinged jet burner to yield a flame height of 12 inches as measured at the outermost tip of the flame.

(5) Apply the burner to the front lower edge of the tubing so that two-thirds of the burner is under the tubing and the remaining third is exposed to allow the flames to curl onto the inside of the tubing. Keep the burner in contact with the material for 60 seconds. If melting material might clog the burner orifices, rotate the burner slightly during application of the flame.

(6) Test 3 samples in still air and 3 samples with an average of 125 ft./min. of air flowing past the sample.

(7) Record the propagation length and duration of burning for each of the 6 samples. The duration of burn is the total burning time of the specimen during the flame test. This includes the burning time of any material that falls on the floor of the test gallery during the igniting period. However, the suspended specimen is considered burning only after the burner is removed. Should the burning time of a suspended specimen and a specimen on the floor coincide, count the coinciding burn time only once.

(8) Calculate the average duration of burning for the first 3 samples (still air) and the second 3 samples (125 ft./min. air flow).

(b) Acceptable performance. The ventilation tubing shall meet each of the following criteria:

(1) Flame propagation of less than 4 feet in each of the 6 tests.

(2) An average duration of burning of less than 1 minute in both groups of 3 tests.

(3) A duration of burning not exceeding 2 minutes in each of the 6 tests.

Sec. 7.29 Approval marking.

(a) Approved brattice cloth shall be legibly and permanently marked with the assigned MSHA approval number at intervals not exceeding ten feet. If the nature of the material or method of processing makes such marking impractical, permanent paint or ink may be used to mark the edge with an MSHA-assigned color code.

(b) Approved ventilation tubing shall be legibly and permanently marked on each section with the assigned MSHA approval number.

(c) An approved product shall be marketed only under a brand or trade name that has been furnished to MSHA.

Sec. 7.43 Application requirements.

(a) An application for approval of a battery assembly shall contain sufficient information to document compliance with the technical requirements of this subpart and include a composite drawing with the following information:

(1) Overall dimensions of the battery assembly, including the minimum distance from the underside of the cover to the top of the terminals and caps.

(2) Composition and thicknesses of the battery box and cover.

(3) Provision for securing covers.

(4) Documentation of flame-resistance of insulating materials and cables.

(5) Number, type, and rating of the battery cells.

(6) Diagram of battery connections between cells and between battery boxes, except when connections between battery boxes are a part of the machine's electrical system.

(7) Total weight of the battery, charged and ready for service.

(8) Documentation of materials and configurations for battery cells, intercell connectors, filler caps, and battery top:

(i) If nonmetallic cover designs are used with cover support blocks; or

(ii) If the cover comes into contact with any portion of the cells, caps, filler material, battery top, or intercell connectors during the impact test specified by Sec. 7.46.

(b) All drawings shall be titled, dated, numbered, and include the latest revision number.

Sec. 7.46 Impact test.

(a) Test procedures. (1) Prepare four covers for testing by conditioning two covers at -13 [deg]F (-25 [deg]C) and two covers at 122 [deg]F (50 [deg]C) for a period of 48 hours.

(2) Mount the covers on a battery box of the same design with which the covers are to be approved, including any support blocks, with the battery cells completely assembled. If used, support blocks must contact only the filler material or partitions between the individual cells. At the test temperature range of 65 [deg]F -80 [deg]F (18.3 [deg]C-26.7

[deg]C), apply a dynamic force of 200 ft. lbs. to the following areas using a hemispherical weight with a 6 maximum radius:

(i) The center of the two largest unsupported areas;

(ii) The areas above at least two support blocks, if used;

(iii) The areas above at least two intercell connectors, one cell, and one filler cap; and

(iv) Areas on at least two corners. If the design consists of both inside and outside corners, test one of each.

(3) Record the condition of the covers, supports, intercell connectors, filler caps, cell covers, and filler material.

(b) Acceptable performance. Impact tests of any of the four covers shall not result in any of the following:

(1) Bent intercell connectors.

(2) Cracked or broken filler caps, except plastic tabs which extend from the body of the filler caps.

(3) Cracks in the cell cover, cells, or filler material.

(4) Cracked or bent supports.

(5) Cracked or splintered battery covers.

Sec. 7.47 Deflection temperature test.

(a) Test procedures. (1) Prepare two samples for testing that measure 5 inches by \1/2\ inch, by the thickness of the material as it will be used. Prior to testing, condition the samples at 73.4 3.6 [deg]F (23<PLUS-MINUS2 [deg]C) and 50<PLUS-MINUS5% relative humidity for at least 40 hours.

(2) Place a sample on supports which are 4 inches apart and immersed in a heat transfer medium at a test temperature range of 65 [deg]F-80 [deg]F (18.3 [deg]C-26.7 [deg]C). The heat transfer medium must be a liquid which will not chemically affect the sample. The testing apparatus must be constructed so that expansion of any components during heating of the medium does not result in deflection of the sample.

(3) Place a temperature measuring device with an accuracy of 1% into the heat transfer medium within \1/8\ inch of, but not touching, the sample.

(4) Apply a total load, in pounds, numerically equivalent to 11 times the thickness of the sample, in inches, to the sample midway between the supports using a \1/8\ inch radius, rounded contact. The total load includes that weight used to apply the load and any force exerted by the deflection measurement device.

(5) Use a deflection measuring device with an accuracy of .001 inches to measure the deflection of the sample at the point of loading as the temperature of the medium is increased at a uniform rate of 3.6<PLUS-MINUS.36 [deg]F/min. (20.2 [deg]C/min.). Apply the load to the sample for 5 minutes prior to heating, to allow compensation for creep in the sample due to the loading.

(6) Record the deflection of the sample due to heating at 180 [deg]F (82 [deg]C).

(7) Repeat steps 2 through 6 for the other sample.

(b) Acceptable performance. Neither sample shall have a deflection greater than .010 inch at 180 [deg]F (82 [deg]C).

Sec. 7.49 Approval marking.

Each approved battery assembly shall be identified by a legible and permanent approval plate inscribed with the assigned MSHA approval number and securely attached to the battery box.

Sec. 7.51 Approval checklist.

Each battery assembly bearing an MSHA approval plate shall be accompanied by a description of what is necessary to maintain the battery assembly as approved.

Sec. 7.63 Application requirements.

(a) Each application for approval of a blasting unit shall include the following:

(1) An overall assembly drawing showing the physical construction of the blasting unit.

(2) A schematic diagram of the electric circuit.

(3) A parts list specifying each electric component and its electrical ratings, including tolerances.

(4) A layout drawing showing the location of each component and wiring.

(5) The model number or other manufacturer's designation of the blasting unit.

(b) All drawings shall be titled, numbered, dated, and include the latest revision number. The drawings may be combined into one or more composite drawings.

(c) The application shall contain a list of all the drawings submitted, including drawing titles, numbers, and revisions.

(d) A detailed technical description of the operation and use of the blasting unit shall be submitted with the application.

Sec. 7.69 Approval marking.

Each approved blasting unit shall be identified as permissible by a legible and permanent marking securely attached, stamped, or molded to the outside of the unit. This marking shall include the following:

(a) The assigned MSHA approval number.

(b) The maximum blasting circuit resistance.

(c) A warning that the unit's components must not be disassembled or removed.

(d) The replacement battery types if the unit has replaceable batteries.

(e) A warning placed next to the charging connector that the battery only be charged in a fresh air location if rechargeable batteries are used.

(f) A warning that the unit is compatible only with detonators that will--

(1) Fire when an average of 1.5 amperes is applied for 5 milliseconds;

(2) Not misfire when up to an average 100 amperes is applied for 10 milliseconds; and

(3) Not fire when a current of 250 milliamperes or less is applied.

Sec. 7.71 Approval checklist.

Each blasting unit bearing an MSHA approval marking shall be accompanied by a description of what is necessary to maintain the blasting unit as approved.

Sec. 7.83 Application requirements.

(a) An application for approval of a diesel engine shall contain sufficient information to document compliance with the technical requirements of this subpart and specify whether the application is for a category A engine or category B engine.

(b) The application shall include the following engine specifications--

(1) Model number;

(2) Number of cylinders, cylinder bore diameter, piston stroke, engine displacement;

(3) Maximum recommended air inlet restriction and exhaust backpressure;

(4) Rated speed(s), rated horsepower(s) at rated speed(s), maximum torque speed, maximum rated torque, high idle, minimum permitted engine speed at full load, low idle;

(5) Fuel consumption at rated horsepower(s) and at the maximum rated torque;

(6) Fuel injection timing; and

(7) Performance specifications of turbocharger, if applicable.

(c) The application shall include dimensional drawings (including tolerances) of the following components specifying all details affecting the technical requirements of this subpart. Composite drawings specifying the required construction details may be submitted instead of individual drawings of the following components--

(1) Cylinder head;

(2) Piston;

(3) Inlet valve;

(4) Exhaust valve;

(5) Cam shaft--profile;

(6) Fuel cam shaft, if applicable;

(7) Injector body;

(8) Injector nozzle;

(9) Injection fuel pump;

(10) Governor;

(11) Turbocharger, if applicable;

(12) Aftercooler, if applicable;

(13) Valve guide;

(14) Cylinder head gasket; and

(15) Precombustion chamber, if applicable.

(d) The application shall include a drawing showing the general arrangement of the engine.

(e) All drawings shall be titled, dated, numbered, and include the latest revision number.

(f) When all necessary testing has been completed, the following information shall be submitted:

(1) The gaseous ventilation rate for the rated speed and horsepower.

(2) The particulate index for the rated speed and horsepower.

(3) A fuel deration chart for altitudes for each rated speed and horsepower.

Sec. 7.90 Approval marking.

Each approved diesel engine shall be identified by a legible and permanent approval marking inscribed with the assigned MSHA approval number and securely attached to the diesel engine. The marking shall also contain the following information:

(a) Ventilation rate.
(b) Rated power.
(c) Rated speed.
(d) High idle.
(e) Maximum altitude before deration.
(f) Engine model number.

Sec. 7.97 Application requirements.

(a) An application for approval of a diesel power package shall contain sufficient information to document compliance with the technical requirements of this subpart and include: drawings, specifications, and descriptions with dimensions (including tolerances) demonstrating compliance with the technical requirements of Sec. 7.98. The specifications and descriptions shall include the materials of construction and quantity. These shall include the following--

(1) A general arrangement drawing showing the diesel power package and the location and identification of the intake system, exhaust system, safety shutdown system sensors, flame arresters, exhaust conditioner, emergency intake air shutoff device, automatic fuel shutoff device and the engine.

(2) Diesel engine specifications including the MSHA approval number, the engine manufacturer, the engine model number, and the rated speed, rated horsepower, and fuel rate.

(3) A drawing(s) which includes the fan blade material specifications, the location and identification of all water-cooled components, coolant lines, radiator, surge tank, temperature sensors, and orifices; arrows indicating proper flow direction; the height relationship of water-cooled components to the surge tank; and the proper procedure for filling the cooling system.

(4) A drawing(s) showing the relative location, identification of components, and design of the safety shutdown system.

(5) Specific component identification, or specific information including detail drawings that identify the characteristics of the cooling system and safety shutdown system that ensures compliance with the technical requirements.

(6) Detail drawings of gaskets used to form flame-arresting paths.

(7) An assembly drawing showing the location and identification of all intake system components from the air cleaner to the engine head.

(8) An assembly drawing showing the location and identification of all exhaust system components from the engine head to the exhaust outlet.

(9) Detail drawings of those intake and exhaust system components identified in paragraphs (a)(7) and (a)(8) of this section that ensure compliance with the technical requirements. An exhaust conditioner assembly drawing shall be provided showing the location, dimensions, and identification of all internal parts, exhaust inlet and outlet, sensors, and the exhaust gas path through the exhaust conditioner. If a wet exhaust conditioner is used, the exhaust conditioner assembly drawing must also show the location, dimensions, and identification of the fill port, drain port, low water check port; high or normal operating water level; minimum allowable low water level; and the maximum allowable grade that maintains explosion-proof operations.

(10) A power package checklist which shall consist of a list of specific features that must be checked and tests that must be performed to determine if a previously approved diesel power package is in approved condition. Test procedures shall be specified in sufficient

detail to allow the evaluation to be made without reference to other documents. Illustrations shall be used to fully identify the approved configuration of the diesel power package.

(11) Information showing that the electrical systems and components meet the requirements of Sec. 7.98.

(12) A drawing list consisting of a complete list of those drawings and specifications which show the details of the construction and design of the diesel power package.

(b) Composite drawings specifying the required construction details may be submitted instead of the individual drawings in paragraph (a) of this section.

(c) All documents shall be titled, dated, numbered, and include the latest revision.

(d) When all testing has been completed, the following information shall be submitted and become part of the approval documentation:

(1) The settings of any adjustable devices used to meet the performance requirements of this subpart.

(2) The coolant temperature sensor setting and exhaust gas temperature sensor setting used to meet the performance requirements of this subpart.

(3) The minimum allowable low water level and the low water sensor setting used to meet the performance requirements of this subpart for systems using a wet exhaust conditioner as the exhaust flame arrester.

(4) The maximum grade on which the wet exhaust conditioner can be operated retaining the flame arresting characteristics.

(5) A finalized version of the power package checklist.

Sec. 7.105 Approval marking.

Each approved diesel power package shall be identified by a legible and permanent approval plate inscribed with the assigned MSHA approval number and securely attached to the diesel power package in a manner that does not impair any explosion-proof characteristics. The grade limitation of a wet exhaust conditioner used as an exhaust flame arrester shall be included on the approval marking.

Sec. 7.303 Application requirements.

(a) An application for approval of a motor assembly shall include a composite drawing or drawings with the following information:

(1) Model (type), frame size, and rating of the motor assembly.

(2) Overall dimensions of the motor assembly, including conduit box if applicable, and internal free volume.

(3) Material and quantity for each of the component parts that form the explosion-proof enclosure or enclosures.

(4) All dimensions (including tolerances) and specifications required to ascertain compliance with the requirements of Sec. 7.304 of this part.

(b) All drawings shall be titled, dated, numbered, and include the latest revision.

Sec. 7.306 Explosion tests.

(a) The following shall be used for conducting an explosion test:

(1) An explosion test chamber designed and constructed to contain an explosive gas mixture to surround and fill the motor assembly being tested. The chamber must be sufficiently darkened and provide viewing capabilities of the flame-arresting paths to allow observation during

testing of any discharge of flame or ignition of the explosive mixture surrounding the motor assembly.

(2) A methane gas supply with at least 98 by volume per centum of combustible hydrocarbons, with the remainder being inert. At least 80 percent by volume of the gas shall be methane.

(3) Coal dust having a minimum of 22 percent dry volatile matter and a minimum heat constant of 11,000 moist BTU (coal containing natural bed moisture but not visible surface water) ground to a fineness of minus 200 mesh U.S. Standard sieve series.

(4) An electric spark ignition source with a minimum of 100 millijoules of energy.

(5) A pressure recording system that will indicate the pressure peaks resulting from the ignition and combustion of explosive gas mixtures within the enclosure being tested.

(b) General test procedures. (1) Motor assemblies being tested shall--

(i) Be equipped with unshielded bearings regardless of the type of bearings specified; and

(ii) Have all parts that do not contribute to the operation or assure the explosion-proof integrity of the enclosure, such as oil seals, grease fittings, hose conduit, cable clamps, and outer bearing caps (which do not house the bearings) removed from the motor assembly.

(2) Each motor assembly shall be placed in the explosion test chamber and tested as follows:

(i) The motor assembly shall be filled with and surrounded by an explosive mixture of the natural gas supply and air. The chamber gas concentrations shall be between 6.0 by volume per centum and the motor assembly natural gas concentration just before ignition of each test. Each externally visible flame-arresting path fit shall be observed for discharge of flames for at least two of the tests, including one with coal dust added.

(ii) A single spark source is used for all testing. Pressure shall be measured at each end of the winding compartment simultaneously during all tests. Quantity and location of test holes shall permit ignition on each end of the winding compartment and recording of pressure on the same and opposite ends as the ignition.

(iii) Motor assemblies incorporating a conduit box shall have the pressure in the conduit box recorded simultaneously with the other measured pressures during all tests. Quantity and location of test holes in the conduit box shall permit ignition and recording of pressure as required in paragraphs (c)(1) and (c)(4)(i) of this section.

(iv) The motor assembly shall be completely purged and recharged with a fresh explosive gas mixture from the chamber or by injection after each test. The chamber shall be completely purged and recharged with a fresh explosive gas mixture as necessary. The oxygen level of the chamber gas mixture shall be no less than 18 percent by volume for testing. In the absence of oxygen monitoring equipment, the maximum number of tests conducted before purging shall be less than or equal to the chamber volume divided by forty times the volume occupied by the motor assembly.

(c) Test procedures. (1) Eight tests at 9.4<PLUS-MINUS0.4 percent methane by volume within the winding compartment shall be conducted, with the rotor stationary during four tests and rotating at rated speed (rpm) during four tests. The ignition shall be at one end of the winding compartment for two stationary and two rotating tests, and then switched to the opposite end for the remaining four tests. If a nonisolated conduit box is used, then two additional tests, one stationary and one rotating, shall be conducted with ignition in the conduit box at a

point furthest away from the opening between the conduit box and the winding compartment.

(2) Four tests at 7.0<PLUS-MINUS0.3 percent methane by volume within the winding compartment shall be conducted with the rotor stationary, 2 ignitions at each end.

(3) Four tests at 9.4<PLUS-MINUS0.4 percent methane by volume plus coal dust shall be conducted. A quantity of coal dust equal to 0.05 ounces per cubic foot of internal free volume of the winding compartment plus the nonisolated conduit box shall be introduced into each end of the winding compartment and nonisolated conduit box to coat the interior surface before conducting the first of the four tests. The coal dust introduced into the conduit box shall be proportional to its volume. The remaining coal dust shall be equally divided between the winding compartment ends. For two tests, one stationary and one rotating, the ignition shall be either in the conduit box or one end of the connected winding compartment, whichever produced the highest pressure in the previous tests. The two remaining tests, one stationary and one rotating, shall be conducted with the ignition in the winding compartment end furthest away from the conduit box.

(4) For motor assemblies incorporating a conduit box which is isolated from the winding compartment by an isolating barrier the following additional tests shall be conducted--

(i) For conduit boxes with an internal free volume greater than 150 cubic inches, two ignition points shall be used, one as close to the geometric center of the conduit box as practical and the other at the furthest point away from the isolating barrier between the conduit box and the winding compartment. Recording of pressure shall be on the same and opposite sides as the ignition point furthest from the isolating barrier between the conduit box and the winding compartment. Conduit boxes with an internal free volume of 150 cubic inches or less shall have one test hole for ignition located as close to the geometric center of the conduit box as practical and one for recording of pressure located on a side of the conduit box.

(ii) The conduit box shall be tested separately. Six tests at 9.4<PLUS-MINUS0.4 percent methane by volume within the conduit box shall be conducted followed by two tests at 7.00.3 percent methane by volume. Then two tests at 9.4<PLUS-MINUS0.4 percent methane by volume with a quantity of coal dust equal to 0.05 ounces per cubic foot of internal free volume of the conduit box and meeting the specifications in paragraph (c)(3) of this section shall be conducted. For conduit boxes with an internal free volume of more than 150 cubic inches, the number of tests shall be evenly divided between each ignition point.

(iii) The motor assembly shall be tested following removal of the isolating barrier or one sectionalizing terminal (as applicable). Six tests at 9.4<PLUS-MINUS0.4 percent methane by volume in the winding compartment and conduit box shall be conducted using three ignition locations. The ignition shall be at one end of the winding compartment for one stationary and one rotating test; the opposite end for one stationary and one rotating test; and at the ignition point that produced the highest pressure on the previous test in paragraph (c)(4)(ii) of this section in the conduit box for one stationary and one rotating test. Motor assemblies that use multiple sectionalizing terminals shall have one test conducted as each additional terminal is removed. Each of these tests shall use the rotor state and ignition location that produced the highest pressure in the previous tests.

(d) A motor assembly incorporating a conduit box that is isolated from the winding compartment that exhibits pressures exceeding 110 psig,

while testing during removal of any or all isolating barriers as specified in paragraph (c)(4) of this section, shall have a warning statement on the approval plate. This statement shall warn that the isolating barrier must be maintained to ensure the explosion-proof integrity of the motor assembly. A statement is not required when the motor assembly has withstood a static pressure of twice the maximum pressure recorded in the explosion tests of paragraph (c)(4) of this section. The static pressure test shall be conducted on the motor assembly with all isolating barriers removed, and in accordance with Sec. 7.307 of this part.

(e) Acceptable performance. Explosion tests of a motor assembly shall not result in--

(1) Discharge of flames.

(2) Ignition of the explosive mixture surrounding the motor assembly in the chamber.

(3) Development of afterburning.

(4) Rupture of any part of the motor assembly or any panel or divider within the motor assembly.

(5) Clearances, in excess of those specified in this subpart, along accessible flame-arresting paths, following any necessary retightening of fastenings.

(6) Pressure exceeding 110 psig, except as provided in paragraph (d) of this section unless the motor assembly has withstood a static pressure of twice the maximum pressure recorded in the explosion tests of this section following the static pressure test procedures of Sec. 7.307 of this part.

(7) Permanent deformation greater than 0.040 inches per linear foot.

Sec. 7.309 Approval marking.

Each approved motor assembly shall be identified by a legible and permanent approval plate inscribed with the assigned MSHA approval number and a warning statement as specified in Sec. 7.306(d) of this part. The plate shall be securely attached to the motor assembly in a manner that does not impair any explosion-proof characteristics.

Sec. 7.311 Approval checklist.

Each motor assembly bearing an MSHA approval marking shall be accompanied by a list of items necessary for maintenance of the motor assembly as approved.

Sec. 7.403 Application requirements.

(a) Electric cables and signaling cables. A single application may address two or more sizes, types, and constructions if the products do not differ in composition of materials or basic design. Applications shall include the following information for each product:

(1) Product information:

(i) Cable type (for example, G or G-GC).

(ii) Construction (for example, round or flat).

(iii) Number and size (gauge) of each conductor.

(iv) Voltage rating for all cables containing electric conductors.

(v) For electric cables, current-carrying capacity of each conductor, with corresponding ambient temperature upon which the current rating (ampacity) is based, of each power conductor.

(2) Design standard. Specify any published consensus standard used and fully describe any deviations from it, or fully describe any nonstandard design used.

(3) Materials. Type and identifying numbers for each material comprising the finished assembly.

(b) Splice kit. A single application may address two or more sizes, types, and constructions if the products do not differ in composition of materials or basic design. Applications shall include the following information for each product:

(1) Product information:

(i) Trade name or designation (for example, style or code number).

(ii) Type or kit (for example, shielded or nonshielded).

(iii) Voltage rating.

(2) Design standard. Specify any published design standard used and fully describe any deviations from it, or provide complete final assembly dimensions for all components for each cable that the splice kit is designed to repair.

(3) Materials. Type of materials, supplier, supplier's stock number or designation for each component.

(4) Complete splice assembly instructions which clearly identify all components and detail procedures used in making the splice.

## Sec. 7.407 Test for flame resistance of electric cables and cable splices.

(a) Test procedure. (1) For electric cables, prepare 3 specimens of cable, each 3 feet in length, by removing 5 inches of jacket material and 2\1/2\ inches of conductor insulation from both ends of each test specimen. For splices, prepare a splice specimen in each of 3 sections of MSHA-approved flame-resistant cable. The cable shall be of the type that the splice kit is designed to repair. The finished splice shall not exceed 18 inches or be less than 6 inches in length for test purposes. The spliced cables shall be 3 feet in length with the midpoint of the splice located 14 inches from one end. Both ends of each of the spliced cables shall be prepared by removing 5 inches of jacket material and 2\1/2\ inches of conductor insulation. The type, amperage, voltage rating, and construction of the cable shall be compatible with the splice kit design. Each splice shall be made in accordance with the instructions provided with the splice kit.

(2) Prior to testing, condition each test specimen for a minimum of 24 hours at a temperature of 70<PLUS-MINUS10 [deg]F (21.1<PLUS-MINUS5.5 [deg]C) and a relative humidity of 55<PLUS-MINUS10 percent. These environmental conditions shall be maintained during testing.

(3) For electric cables, locate the sensing element of the temperature measuring device 26 inches from one end of each test specimen. For splices, locate the sensing element 12 inches from the midpoint of the splice and 10 inches from the end of the cable. The sensing element must be secured so that it remains in direct contact with the metallic portion of the power conductor for the duration of the flame-resistant test. If a thermocouple-type temperature measuring instrument is used, connect the sensing element through the cable jacket and power conductor insulation. Other means for monitoring conductor temperature may be used, provided the temperature measurement is made at the same location. If the jacket and conductor insulation must be disturbed to insert the temperature measuring device, each must be restored as closely as possible to its original location and maintained

there for the duration of the testing.

(4) Center the test specimen horizontally in the test chamber on the three rods. The three rods shall be positioned perpendicular to the longitudinal axis of the test specimen and at the same height, which permits the tip of the inner cone from the flame of the gas burner, when adjusted in accordance with the test procedure, to touch the jacket of the test specimen. The specimen shall be maintained at this level for the duration of the flame test. The two outermost rods shall be placed so that 1 inch of cable jacket extends beyond each rod. For electric cables, the third rod shall be placed 14 inches from the end of the test specimen nearer the temperature monitoring location on the specimen. For splices, the third rod shall be placed between the splice and the temperature monitoring location at a distance 8 inches from the midpoint of the splice. The specimen shall be free from external air currents during testing.

(5) Adjust the gas burner to give an overall blue flame 5 inches high with a 3-inch inner cone. There shall be no persistence of yellow coloration.

(6) Connect all power conductors of the test specimen to the current source. The connections shall be secure and compatible with the size of the cable's power conductors in order to reduce contact resistance.

(7) Energize all power conductors of the test specimen with an effective heating current value of 5 times the power conductor ampacity rating (to the nearest whole ampere) at an ambient temperature of 104 [deg]F (40 [deg]C).

(8) Monitor the electric current through the power conductors of the test specimen with the current measuring device. Adjust the amount of heating current, as required, to maintain the proper effective heating current value within <PLUS-MINUS5 percent until the power conductors reach a temperature of 400 [deg]F (204.4 [deg]C).

(9) For electric cables, apply the tip of the inner cone from the flame of the gas burner directly beneath the test specimen for 60 seconds at a location 14 inches from one end of the cable and between the supports separated by a 16-inch distance. For splices, apply the tip of the inner cone from the flame of a gas burner for 60 seconds beneath the midpoint of the splice jacket.

(10) After subjecting the test specimen to external flame for the specified time, fully remove the flame of the gas from beneath the specimen without disturbing air currents within the test chamber. Simultaneously turn off the heating current.

(11) Record the amount of time the test specimen continues to burn after the flame from the gas burner has been removed. The duration of burning includes the burn time of any material that falls from the test specimen after the flame from the gas has been removed.

(12) Record the length of burned (charred) area of each test specimen measured longitudinally along the cable axis.

(13) Repeat the procedure for the remaining two specimens.

(b) Acceptable performance. Each of the three test specimens shall meet the following criteria:

(1) The duration of burning shall not exceed 240 seconds.

(2) The length of the burned (charred) area shall not exceed 6 inches.

Sec. 7.408 Test for flame resistance of signaling cables.

(a) Test procedure. (1) Prepare 3 samples of cable each 2 feet long.

(2) Prior to testing, condition each test specimen for a minimum of

24 hours at a temperature of 70<PLUS-MINUS10 [deg]F (21.1<PLUS-MINUS5.5 [deg]C) and relative humidity of 5510 percent. These environmental conditions shall be maintained during testing.

(3) Center the test specimen horizontally in the test chamber on the three rods. The three rods shall be positioned perpendicular to the longitudinal axis of the test specimen and at the same height, which permits the tip of the inner cone from the flame of the gas burner, when adjusted in accordance with the test procedure, to touch the test specimen. The specimen shall be maintained at this height for the duration of the flame test. The two outermost rods shall be placed so that 1 inch of cable extends beyond each rod. The third rod shall be placed at the midpoint of the cable. The specimen shall be free from external air currents during testing.

(4) Adjust the gas burner to give an overall blue flame 5 inches high with a 3-inch inner cone. There shall be no persistence of yellow coloration.

(5) Apply the tip of the inner cone from the flame of the gas burner for 30 seconds directly beneath the specimen centered between either and support and the center support.

(6) After subjecting the test specimen to external flame for the specified time, fully remove the flame of the gas from beneath the specimen without disturbing air currents within the test chamber.

(7) Record the amount of time the test specimen continues to burn after the flame from the gas burner has been removed. The duration of burning includes the burn time of any material that falls from the test specimen after the flame from the gas has been removed.

(8) Record the length of burned (charred) area of each test specimen measured longitudinally along the cable axis.

(9) Repeat the procedure for the remaining two specimens.

(b) Acceptable performance. Each of the three test specimens shall meet the following criteria:

(1) The duration of burning shall not exceed 60 seconds.

(2) The length of the burned (charred) area shall not exceed 6 inches.

Sec. 7.409 Approval marking.

Approved electric cables, signaling cables, and splices shall be legibly and permanently marked with the MSHA-assigned approval marking. For electric cables and signaling cables, the marking shall appear at intervals not exceeding 3 feet and shall include the MSHA-assigned approval number in addition to the number and size (gauge) of conductors and cable type. For cables containing electric conductors, the marking shall also include the voltage rating. For splices, the marking shall be placed on the jacket so that it will appear at least once on the assembled splice.

PART 15_REQUIREMENTS FOR APPROVAL OF EXPLOSIVES AND SHEATHED EXPLOSIVE UNITS--Table of Contents

Subpart A_General Provisions

Sec. 15.4 Application procedures and requirements.

(a) Application. Requests for an approval or an extension of approval under this part shall be sent to: U.S. Department of Labor, Mine Safety and Health Administration, Approval and Certification Center, P.O. Box 251, Industrial Park Road, Triadelphia, West Virginia 26059.

(b) Fees. Fees calculated in accordance with Part 5 of this Title shall be submitted in accordance with Sec. 5.40.

(c) Original approval for explosives. Each application for approval of an explosive shall include--

(1) A technical description of the explosive, including the chemical composition of the explosive with tolerances for each ingredient;

(2) A laboratory number or other suitable designation identifying the explosive. The applicant shall provide the brand or trade name under which the explosive will be marketed prior to issuance of the approval;

(3) The lengths and diameters of explosive cartridges for which approval is requested;

(4) The proposed minimum product firing temperature of the explosive; and

(5) The name, address, and telephone number of the applicant's representative responsible for answering any questions regarding the application.

(d) Original approval for sheathed explosive units. Each application for approval of a sheathed explosive unit shall include--

(1) A technical description of the sheathed explosive unit which includes the chemical composition of the sheath, with tolerances for each ingredient, and the types of material used for the outer covering;

(2) The minimum thickness weight, and specific gravity of the sheath and outer covering;

(3) The brand or trade name, weight, specific gravity, and minimum product firing temperature of the approved explosive to be used in the unit;

(4) The ratio of the weight of the sheath to the weight of the explosive; and

(5) The name, address and telephone number of the applicant's representative responsible for answering any questions regarding the application.

(e) Subsequent approval of a similar explosive or sheathed explosive unit. Each application for approval of an explosive or sheathed explosive unit similar to one for which the applicant already holds an approval shall include--

(1) The approval number of the explosive or sheathed explosive unit which most closely resembles the new one;

(2) The information specified in paragraphs (c) and (d) of this section for an original approval, as applicable, except that any document which is the same as the one listed by MSHA in the prior approval need not be submitted but shall be noted in the application; and

(3) An explanation of all changes from the existing approval.

(f) Extension of the approval. Any change in an approved explosive or sheathed explosive unit from the documentation on file at MSHA that affects the technical requirements of this Part shall be submitted for

approval prior to implementing the change.

(1) Each application for an extension of approval shall include--

(i) The MSHA-assigned approval number for the explosive or sheathed explosive unit for which the extension is sought;

(ii) A description of the proposed change to the approved explosive or sheathed explosive unit; and

(iii) The name, address, and telephone number of the applicant's representative responsible for answering any questions regarding the application.

(2) MSHA will determine what tests, additional information, samples, or material, if any, are required to evaluate the proposed change.

(3) When a change involves the chemical composition of an approved explosive or sheathed explosive unit which affects the firing characteristics, MSHA may require the explosive or sheathed explosive unit to be distinguished from those associated with the former composition.

Sec. 15.8 Quality assurance.

(a) Applicants granted an approval or an extension of approval under this part shall manufacture the explosive or sheathed explosive unit as approved.

(b) Applicants shall immediately report to the MSHA Approval and Certification Center, any knowledge of explosives or sheathed explosive units that have been distributed that do not meet the specifications of the approval.

## Subpart A_General Provisions

### Sec. 18.6 Applications.

(a)(1) Investigation leading to approval, certification, extension thereof, or acceptance of hose or conveyor belt, will be undertaken by MSHA only pursuant to a written application accompanied by a check, bank draft, or money order, payable to the U.S. Mine Safety and Health Administration to cover the fees. The application shall be accompanied by all necessary drawings, specifications, descriptions, and related materials, as set out in this part.

(2) Where the applicant for approval has used an independent testing laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(3) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

(4) The application, all related documents, and all correspondence concerning it shall be addressed to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(b) [Reserved]

(c) Applications for acceptance of a conveyor belt as fire resistant shall include the following information: Trade name of the conveyor belt, thickness of covers, friction and skim coats, number of plies, type and weight of ply material, and designation of breaker strip or floated ply. The applicant shall provide other description or specifications as may be subsequently required.

(d) Applications for acceptance of hose as flame resistant shall include the following information: Trade name of hose, identification of materials used, including compound numbers, thickness of cover, thickness of tube, and number and weight of plies. The applicant shall provide other description or specifications as may be subsequently required.

(e) Drawings, drawing lists, specifications, wiring diagram, and descriptions shall be adequate in number and detail to identify fully the complete assembly, component parts, and subassemblies. Drawings shall be titled, numbered, dated and shall show the latest revision. Each drawing shall include a warning statement that changes in design must be authorized by MSHA before they are applied to approved equipment. When intrinsically safe circuits are incorporated in a machine or accessory, the wiring diagram shall include a warning statement that any change(s) in the intrinsically safe circuitry or components may result in an unsafe condition. The specifications shall

include an assembly drawing(s) (see Figure 1 in Appendix II) showing the overall dimensions of the machine and the identity of each component part which may be listed thereon or separately, as in a bill of material (see Figure 2 in Appendix II). MSHA may accept photographs (minimum size 8 x 10\1/2\) in lieu of assembly drawing(s).
Purchased parts shall be identified by the manufacturer's name, catalog number(s), and rating(s). In the case of standard hardware and miscellaneous parts, such as insulating pieces, size and kind of material shall be specified. All drawings of component parts submitted to MSHA shall be identical to those used in the manufacture of the parts. Dimensions of parts designed to prevent the passage of flame shall specify allowable tolerances. A notation ``Do Not Drill Through'' or equivalent should appear on drawings with the specifications for all ``blind'' holes.

(f) MSHA reserves the right to require the applicant to furnish supplementary drawings showing sections through complex flame-arresting paths, such as labyrinths used in conjunction with ball or roller bearings, and also drawings containing dimensions not indicated on other drawings submitted to MSHA.

(g) The applicant may ship his equipment to MSHA for investigation at the time of filing his application and payment of the required fees. Shipping charges shall be prepaid by the applicant.

(h) For a complete investigation leading to approval or certification the applicant shall furnish MSHA with the components necessary for inspection and testing. Expendable components shall be supplied by the applicant to permit continuous operation of the equipment while being tested. If special tools are necessary to assemble or disassemble any component for inspection or test, the applicant shall furnish them with the equipment to be tested.

(i) For investigation of a hose or conveyor belt, the applicant shall furnish samples as follows:

Hose--a sample having a minimum length of 2 feet;
Conveyor belt--a sample of each type 8 inches long cut across the entire width of the belt.

(j) The applicant shall submit a sample caution statement (see Figure 3 in Appendix II) specifying the conditions for maintaining permissibility of the equipment.

(k) The applicant shall submit a factory-inspection form (see Figure 4 in Appendix II) used to maintain quality control at the place of manufacture or assembly to insure that component parts are made and assembled in strict accordance with the drawings and specifications covering a design submitted to MSHA for approval or certification.

(l) MSHA will accept an application for an approval, a letter of certification, or an acceptance for listing of a product that is manufactured in a country other than the United States provided: (1) All correspondence, specifications, lettering on drawings (metric-system dimensions acceptable), instructions, and related information are in English; and (2) all other requirements of this part are met the same as for a domestic applicant.

Sec. 18.15 Changes after approval or certification.

If an applicant desires to change any feature of approved equipment or a certified component, he shall first obtain MSHA's concurrence pursuant to the following procedure:

(a)(1) Application shall be made as for an original approval or

letter of certification requesting that the existing approval or certification be extended to cover the proposed changes and shall be accompanied by drawings, specifications, and related information, showing the changes in detail.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved or certified product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(b) The application will be examined by MSHA to determine whether inspection or testing will be required. Testing will be required if there is a possibility that the change(s) may adversely affect safety.

(c) If the change(s) meets the requirements of this part, a formal extension of approval or certification will be issued, accompanied by a list of new or revised drawings, specifications, and related information to be added to those already on file for the original approval or certification.

(d) Revisions in drawings or specifications that do not involve actual change in the explosion-proof features of equipment may be handled informally.

Sec. 18.53 High-voltage longwall mining systems.

(h) A study to determine the minimum available fault current must be submitted to MSHA to ensure adequate protection for the length and conductor size of the longwall motor, shearer and trailing cables.

Sec. 18.81 Field modification of approved (permissible) equipment;

application for approval of modification; approval of plans for modification before modification.

(a) An owner of approved (permissible) equipment who desires to make modifications in such equipment shall apply in writing to make such modifications. The application, together with the plans of modifications, shall be filed with Approval and Certification Center, RR 1, Box 251,
Industrial Park Road, Triadelphia, WV 26059.

(b) Proposed modifications shall conform with the applicable requirements of subpart B of this part, and shall not substantially alter the basic functional design that was originally approved for the equipment.

(c) Upon receipt of the application for modification, and after such examination and investigation as may be deemed necessary by MSHA, MSHA will notify the owner and the District office of the mine workers' organization having jurisdiction at the mine where such equipment is to be operated stating the modifications which are proposed to be made and MSHA's action thereon.

Sec. 18.82 Permit to use experimental electric face equipment in a gassy mine or tunnel.

(a) Application for permit. An application for a permit to use experimental electric face equipment in a gassy mine or tunnel will be considered only when submitted by the user of the equipment. The user shall submit a written application to the Assistant Secretary of Labor for Mine Safety and Health, 1100 Wilson Blvd., Room 2322, Arlington, Virginia 22209-3939, and send a copy to Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(b) Requirements--(1) Constructional. (i) Experimental equipment shall be so constructed that it will not constitute a fire or explosion hazard.

(ii) Enclosures designed as explosion-proof, unless already certified, or components of previously approved (permissible) machines, shall be submitted to MSHA for inspection and test and shall meet the applicable design requirements of subpart B of this part. Components designed as intrinsically safe also shall be submitted to MSHA for investigation.

(iii) MSHA may, at its discretion, waive the requirements for detailed drawings of component parts, inspections, and tests provided satisfactory evidence is submitted that an enclosure has been certified, or otherwise accepted by a reputable testing agency whose standards are substantially equivalent to those set forth in subpart B of this part.

(2) Specifications. The specifications for experimental equipment shall include a layout drawing (see Figure 1 in Appendix II) or photograph(s) with the components, including overcurrent-protective device(s) with setting(s) identified thereon or separately; a wiring diagram; and descriptive material necessary to insure safe operation of the equipment. Drawings already filed with MSHA need not be duplicated by the applicant, but shall be properly identified.

(c) Final inspection. Unless equipment is delivered to MSHA for investigation, the applicant shall notify Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, when and where the experimental equipment will be ready for inspection by a representative of MSHA before installing it on a trial basis. Such inspection shall be completed before a permit will be issued.

(d) Issuance of permit. When the inspection discloses full compliance with the applicable requirements of this subpart, the Assistant Secretary will issue a permit sanctioning the operation of a single unit in a gassy mine or tunnel, as designated in the application. If the applicant is not the assembler of the equipment, a copy of the permit also may be sent to the assembler.

(e) Duration of permit. A permit will be effective for a period of 6 months. For a valid reason, to be stated in a written application, the Administrator of MSHA may grant an extension of a permit for an additional period, not exceeding 6 months. Further extension will be granted only where, after investigation, the Assistant Secretary finds that for reasons beyond the control of the user, it has not been possible to complete the experiment within the period covered by the extended permit.

(f) Permit label. With the notification granting a permit, the applicant will receive a photographic copy of a permit label bearing the following:

(1) Emblem of the Mine Safety and Health Administration.

(2) Permit number.

(3) Expiration date of the permit.

(4) Name of machine.

(5) Name of the user and mine or tunnel.

The applicant shall attach the photographic copy of the permit label, or replica thereof, to the experimental equipment. If a photograph is used, a clear plastic covering shall be provided for it.

(g) Withdrawal of permit. The Assistant Secretary may rescind, for cause, any permit granted under this subpart.

Sec. 18.93 Application for field approval; filing procedures.

(a)(1) Investigation and testing leading to field approval shall be undertaken by MSHA only pursuant to individual written applications for each machine submitted in triplicate on MSHA Form No. 6-1481, by the owner-coal mine operator of the machine.

(2) Except as provided in paragraph (b) of this section, each application shall be accompanied by appropriate photographs, drawings, specifications, and descriptions as required under the provisions of Sec. 18.94 and each such application shall be filed with the Coal Mine Health and Safety District Manager for the District in which such machine will be employed.

(b) The Coal Mine Health and Safety District Manager may, upon receipt of any application filed pursuant to paragraph (a) of this section, waive the requirements of Sec. 18.94 with respect to such application if he determines that the submission of photographs, drawings, specifications, or descriptions will place an undue financial burden upon the applicant. In the event a waiver is granted in accordance with this paragraph (b), initial review of the application will be waived and the applicant shall be notified on MSHA Form 6-1481 of such waiver and the date, time, and location at which field inspection of the equipment described in the application will be conducted.

(c) Following receipt of an application filed in accordance with paragraph (a) of this section, the Coal Mine Health and Safety District Manager shall determine whether the application has been filed in accordance with Sec. 18.91, and cause the application to be reviewed by a qualified electrical representative to determine compliance with Sec. 18.92:

(1) If it is determined on the basis of the application or the data submitted in accordance with Sec. 18.94 that further consideration of a field approval is warranted under this subpart E or that the machine appears suitable and safe for its intended use, the Coal Mine Health and Safety District Manager shall advise the applicant in writing that further investigation and inspection of the machine will be necessary. The notice issued by the Coal Mine Health and Safety District Manager shall set forth the time and place at which such inspection will be conducted and specify the location and size of any tapped holes required to be made by the applicant to facilitate the pressure testing of enclosures.

(2) If it is determined on the basis of data submitted in accordance with Sec. 18.94 that the applicant is not qualified to receive an approval or that the machine does not appear to be suitable and safe for its intended use, the Coal Mine Health and Safety District Manager shall so advise the applicant in writing, setting forth the reasons for his denial of the application, and where applicable, the deficiencies in the machine which rendered it unsuitable or unsafe for use.

(3) Rejected applications, together with attached photographs, drawings, specifications and descriptions shall be forwarded by the Coal Mine Health and Safety District Manager to Approval and Certification

Center which shall record all pertinent data with respect to the machine for which field approval was sought.

Sec. 18.94 Application for field approval; contents of application.

(a) Each application for field approval shall, except as provided in Sec. 18.93(b), include the following information with respect to the electrically operated machine for which field approval is sought:

(1) The trade name and the certification number or other means of identifying any explosion-proof compartment or intrinsically-safe component installed on the machine for which a prior approval or certification has been issued under the provisions of Bureau of Mines Schedules 2D, 2E, 2F, or 2G.

(2) The trade name and the flame-resistance acceptance or approval number of any cable, cord, hose, or conveyor belt installed on the machine for which prior acceptance or approval by MSHA has been issued.

(b) Each application for field approval shall be accompanied by:

(1) If the machine is constructed or assembled entirely from components which have been certified or removed from machines approved under Bureau of Mines Schedule 2D, 2E, 2F, or 2G, photographs or a single layout drawing which clearly depicts and identifies each of the permissible components and its location on the machine.

(2) If the machine contains one or more components required to be permissible which has not been approved or certified under Bureau of Mines Schedule 2D, 2E, 2F, or 2G, a single layout drawing which clearly identifies all of the components from which it was assembled.

(3) All applications shall include specifications for:

(i) Overcurrent protection of motors;

(ii) All wiring between components, including mechanical protection such as hose conduit and clamps;

(iii) Portable trailing cable for use with the machine, including the type, length, diameter, and number and size of conductors;

(iv) Insulated strain clamp for machine end of portable trailing cable;

(v) Short-circuit protection to be provided at outby end of portable trailing cable.

Sec. 19.3 Applications.

(a) Before MSHA will undertake the active investigation leading to approval of any lamp, the manufacturer shall make application by letter for an investigation leading to approval of its lamp. This application, accompanied by a check, bank draft, or money order, payable to U.S. Mine Safety and Health Administration, to cover all the necessary fees, shall be sent to Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, together with the required drawings, one complete lamp, and instructions for its operation.

(b) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(1) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(2) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(3) Identification of components or features of the product that are critical to the safety of the product; and

(4) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(c) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

Sec. 19.13 Instructions for handling future changes in lamp design.

All approvals are granted with the understanding that the manufacturer will make his lamp according to the drawings which he has submitted to MSHA and which have been considered and included in the approval. Therefore, when he desires to make any change in the design of the lamp, he should first of all obtain MSHA's approval of the change. The procedure is as follows:

(a)(1) The manufacturer shall write to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, requesting an extension of the original approval and stating the change or changes desired. With this letter the manufacturer should submit a revised drawing or drawings showing the changes in detail, and one of each of the changed lamp parts.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required

by this part.

(b) MSHA will consider the application and inspect the drawings and parts to determine whether it will be necessary to make any tests.

(c) If no tests are necessary, the applicant will be advised of the approval or disapproval of the change by letter from MSHA.

(d) If tests are judged necessary, the applicant will be advised of the material that will be required.

Sec. 20.3 Applications.

(a) Before MSHA will undertake the active investigation leading to approval of any lamp, the manufacturer shall make application by letter for an investigation of the lamp. This application, accompanied by a check, bank draft, or money order, payable to the U.S. Mine Safety and Health Administration, to cover all the necessary fees, shall be sent to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, together with the required drawings, one complete lamp, and instructions for its operation.

(b) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(1) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(2) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(3) Identification of components or features of the product that are critical to the safety of the product; and

(4) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required under this part.

(c) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

Sec. 20.14 Instructions for handling future changes in lamp design.

All approvals are granted with the understanding that the manufacturer will make the lamp according to the drawings submitted to MSHA, which have been considered and included in the approval. Therefore, when the manufacturer desires to make any change in the design of the lamp, the manufacturer should first obtain an extension of the original approval to cover the change. The procedure is as follows:

(a)(1) The manufacturer shall write to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, requesting an extension of the original approval and describing the change or changes proposed. With this letter the manufacturer should submit a revised drawing or drawings showing the changes in detail, and one of each of the changed lamp parts.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(b) MSHA will consider the application and inspect the drawings and parts to determine whether it will be necessary to make any tests.

(c) If no tests are necessary, the applicant will be advised of the acceptance or rejection of the proposed change by letter from MSHA.

(d) If tests are judged necessary, the applicant will be advised of the material that will be required.

Sec. 22.4 Applications.

(a) Before MSHA will undertake the active investigation leading to approval of any methane detector, the manufacturer shall make application by letter for an investigation leading to approval of the detector. This application, accompanied by a check, bank draft, or money order, payable to the U.S. Mine Safety and Health Administration, to cover all the necessary fees, shall be sent to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, together with the required drawings, one complete detector, and instructions for its operation.

(b) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(1) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(2) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(3) Identification of components or features of the product that are critical to the safety of the product; and

(4) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(c) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

Sec. 22.11 Instructions on handling future changes in design.

All approvals are granted with the understanding that the manufacturer will make the detector according to the drawings submitted to MSHA which have been considered and included in the approval. Therefore, when the manufacturer desires to make any changes in the design, the manufacturer should first obtain MSHA's approval of the change. The procedure is as follows:

(a)(1) The manufacturer must write to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, requesting an extension of the original approval and stating the change or changes desired. With this request, the manufacturer should submit a revised drawing or drawings showing changes in detail, together with one of each of the parts affected.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required

by this part.

(b) MSHA will consider the application and inspect the drawings and parts to determine whether it will be necessary to make any tests.

(c) If no tests are necessary, the applicant will be advised of the approval or disapproval of the change by letter from MSHA.

(d) If tests are judged necessary, the applicant will be advised of the material that will be required.

Sec. 23.3 Applications.

(a) Before MSHA will undertake the active investigation leading to approval of any telephone or signaling device, the manufacturer shall make application by letter for an investigation leading to approval of the device. This application, accompanied by a check, bank draft, or money order, payable to the U.S. Mine Safety and Health Administration, to cover all the necessary fees, shall be sent to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, together with the required drawings, one complete telephone or signaling device, and instructions for its operation.

(b) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(1) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(2) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(3) Identification of components or features of the product that are critical to the safety of the product; and

(4) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(c) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

Sec. 23.14 Instructions for handling future changes in design.

All approvals are granted with the understanding that the manufacturer will make his device according to the drawings that he has submitted to MSHA and that have been considered and included in the approval. Therefore, before making any changes in the design he shall obtain MSHA's authorization of the change. The procedure is as follows:

(a) The manufacturer shall write to Approval and Certification Center, Box 201B, Industrial Park Road, Dallas Pike, Triadelphia, W. Va. 26059 requesting an extension of his original approval and stating the change or changes desired. With this request, he should submit a revised drawing or drawings showing the changes in detail, together with one of each of the parts affected.

(b) MSHA will consider the application and inspect the drawings and parts to determine whether it will be necessary to make any tests.

(c) If no tests are necessary, and the change meets the requirements, the applicant will be officially advised by MSHA that his original approval has been extended to include the change.

(d) If tests are judged necessary, the applicant will be advised of the material that will be required. In this case extension of approval will be granted upon satisfactory completion of the tests and full compliance with the requirements.

[Sched. 9B, 4 FR 1555, Apr. 11, 1939, as amended by Supp. 1, 20 FR 2975, May 4, 1955; 43 FR 12315, Mar. 24, 1978; 52 FR 17514, May 8, 1987]

Effective Date Note: At 68 FR 36421, June 17, 2003, Sec. 23.14 was amended by revising paragraph (a), effective Aug. 18, 2003. For the convenience of the user, the revised text is set forth as follows:

Sec. 23.14 Instructions for handling future changes in design.

* * * * *

(a)(1) The manufacturer shall write to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, requesting an extension of the original approval and stating the change or changes desired. With this request, the manufacturer should submit a revised drawing or drawings showing the changes in detail, together with one of each of the parts affected.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

* * * * *

## Subpart A_General Provisions

### Sec. 27.4 Applications.

(a)(1) No investigation or testing for certification will be undertaken by MSHA except pursuant to a written application, accompanied by all drawings, specifications, descriptions, and related materials and also a check, bank draft, or money order payable to the U.S. Mine Safety and Health Administration, to cover the fees. The application and all related matters and correspondence concerning it shall be addressed to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(3) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to the product approval requirements under this part.

(b) Drawings, specifications, and descriptions shall be adequate in detail to identify fully all components and subassemblies that are submitted for investigation, and shall include wiring and block diagrams. All drawings shall include title, number, and date; any revision dates and the purpose of each revision shall also be shown on the drawing.

(c) For a complete investigation leading to certification, the applicant shall furnish all necessary components and material to MSHA. MSHA reserves the right to require more than one of each component, subassembly, or assembly for the investigation. Spare parts and expendable components, subject to wear in normal operation, shall be supplied by the applicant to permit continuous operation during test periods. The applicant shall furnish special tools necessary to assemble or disassemble any component or subassembly for inspection or test.

(d) The applicant shall submit a plan of inspection of components at the place of manufacture or assembly. The applicant shall furnish to MSHA a copy of any factory-inspection form or equivalent with the application. The form shall direct attention to the points that must be checked to make certain that all components or subassemblies of the complete assembly are in proper condition, complete in all respects, and in agreement with the drawings, specifications, and descriptions filed with MSHA.

(e) The applicant shall furnish to MSHA complete instructions for operating the assembly and servicing components. After completion of MSHA's investigation, and before certification, if any revision of the instructions is required, a revised copy thereof shall be submitted to MSHA for inclusion with the drawings and specifications.

Sec. 27.6 Certification of components.

In accordance with Sec. 27.4, manufacturers of components may apply to MSHA to issue a letter of certification. To qualify for certification, electrical components shall conform to the prescribed inspection and test requirements and the construction thereof shall be adequately covered by specifications officially recorded and filed with MSHA. Letters of certification may be cited to fabricators of equipment intended for use in a certified methane-monitoring system as evidence that further inspection and test of the components will not be required.

Sec. 27.11 Extension of certification.

If an applicant desires to change any feature of a certified system or component, he shall first obtain MSHA's approval of the change, pursuant to the following procedure:

(a)(1) Application shall be made as for an original certification, requesting that the existing certification be extended to cover the proposed changes. The application shall include complete drawings, specifications, and related data, showing the changes in detail.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(b) The application will be examined by MSHA to determine whether inspection and testing of the modified system or component or of a part will be required. MSHA will inform the applicant whether testing is required and the component or components and related material to be submitted for that purpose.

(c) If the proposed modification meets the requirements of this part, a formal extension of certification will be issued, accompanied by a list of revised drawings and specifications which MSHA has added to those already on file.

## Subpart B_Application for Approval

### Sec. 28.10 Application procedures.

(a) Each applicant seeking approval of a fuse for use with direct current in providing short-circuit protection for trailing cables shall arrange for submission, at applicant's own expense, of the number of fuses necessary for testing to a nationally recognized independent testing laboratory capable of performing the examination, inspection, and testing requirements of this part.

(b) The applicant shall insure, at his own expense, that the examination, inspection, and testing requirements of this part are properly and thoroughly performed by the independent testing laboratory of his choice.

(c) Upon satisfactory completion by the independent testing laboratory of the examination, inspection, and testing requirements of this part, the data and results of such examination, inspection, and tests shall be certified by both the applicant and the laboratory and shall be sent for evaluation of such data and results to Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059. The appropriate fee as prescribed in Part 5 of this chapter shall accompany the certified data and results.

(d) The certified data and results of the examinations, inspections, and tests required by this part and submitted to MSHA for evaluation shall be accompanied by a proposed plan for quality control which meets the minimum requirements set forth in Subpart D of this part.

(e) Each applicant shall deliver to MSHA at his own expense, three fuses of each size and type which may be necessary for evaluation of the examination, inspection, and test results by the Bureau.

(f) Applicants or their representatives may visit or communicate with Approval and Certification Center in order to discuss the requirements for approval of any fuse, or to obtain criticism of proposed designs; no charge shall be made for such consultation and no written report shall be issued by MSHA as a result of such consultation.

### Sec. 28.25 Changes or modifications of approved fuses; issuance of modification of certificate of approval.

(a) Each applicant may, if he desires to change any feature of an approved fuse, request a modification of the original certificate of approval issued by MSHA for such fuse by filing an application for modification in accordance with the provisions of this section.

(b) Applications, including fees, shall be submitted as specified in Sec. 28.10 for an original certificate of approval, with a request for a modification of the existing certificate to cover any proposed change.

(c) The application for modification, together with the examination, inspection, and test results prescribed by Sec. 28.10 shall be examined and evaluated by MSHA to determine if the proposed modification meets the requirements of this part.

(d) If the proposed modification meets the requirements of this part, a formal modification of approval will be issued, accompanied, where necessary, by reproductions of revised approval labels or markings.

Sec. 28.30 Quality control plans; filing requirements.

As a part of each application for approval or modification of approval submitted pursuant to this part, each applicant shall file with MSHA a proposed quality control plan which shall be designed to assure the quality of short-circuit protection provided by the fuse for which approval is sought.

Sec. 28.31 Quality control plans; contents.

(a) Each quality control plan shall contain provisions for the management of quality, including: (1) Requirements for the production of quality data and the use of quality control records; (2) control of engineering drawings, documentations, and changes; (3) control and calibration of measuring and test equipment; (4) control of purchased material to include incoming inspection; (5) lot identification, control of processes, manufacturing, fabrication, and assembly work conducted in the applicant's plant; (6) audit or final inspection of the completed product; and, (7) the organizational structure necessary to carry out these provisions.

(b) The sampling plan shall include inspection tests and sampling procedures developed in accordance with Military Specification MIL-F-15160D, ``Fuses; Instrument, Power, and Telephone'' (which is hereby incorporated by reference and made a part hereof), Group A tests and Group B tests, except that the continuity and/or resistance characteristics of each fuse shall be tested. Military Specification MIL-F-15160D is available for examination at Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059. Copies of the document may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC20402.

(c) The sampling procedure shall include a list of the characteristics to be tested by the applicant or his agent and shall include but not be limited to: (1) Continuity and/or resistance determination for each fuse; (2) carry current capability (not less than 110 percent of the rated current); and, (3) overload current interruption capability (not less than 135 percent of the rated current).

(d) The quality control inspection test method to be used by the applicant or his agent for each characteristic required to be tested shall be described in detail.

PART 33_DUST COLLECTORS FOR USE IN CONNECTION WITH ROCK DRILLING IN COAL MINES--Table of Contents

Subpart A_General Provisions

Sec. 33.6 Applications.

(a)(1) No investigation or testing will be undertaken by MSHA except pursuant to a written application (except as otherwise provided in paragraph (e) of this section), accompanied by a check, bank draft, or money order, payable to the U.S. Mine Safety and Health Administration, to cover the fees; and all prescribed drawings, specifications, and all related materials. The application and all related matters and all correspondence concerning it shall be sent to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(3) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

(b) The application shall specify the operating conditions (see Sec. 33.22) for which certification is requested.

(c) Shipment of the equipment to be tested shall be deferred until MSHA has notified the applicant that the application will be accepted. Shipping instructions will be issued by MSHA and shipping charges shall be prepaid by the applicant. Upon completion of the investigation and notification thereof to the applicant by MSHA, the applicant shall remove his equipment promptly from the test site (see Sec. 33.30).

(d) Drawings and specifications shall be adequate in number and detail to identify fully the design of the unit or system and to disclose its materials and detailed dimensions of all component parts. Drawings must be numbered and dated to insure accurate identification and reference to records, and must show the latest revision. Specifications and drawings, including a complete assembly drawing with each part that affects dust collection identified thereon, shall include:

(1) Details of all dust-collector parts. A manufacturer who supplies the applicant with component parts or sub- assemblies may submit drawings and specifications of such parts or subassemblies direct to MSHA instead of to the applicant. If the unit or system is certified, MSHA will supply the applicant with a list, in duplicate, of drawing numbers pertaining to such parts or subassemblies for identification purposes only.

(2) Details of the electrical parts of units designed to operate as face equipment (see Sec. 33.38) in accordance with the provisions of

Part 18 of Subchapter D of this chapter. (Bureau of Mines Schedule 2, revised, the current revision of which is Schedule 2F).

(3) Storage capacity of the various stages of dust collection in the dust separator.

(4) Net filter area in the dust separator, and complete specifications of the filtering material.

(e) If an application is made for certification of a dust-collector unit or a combination unit that includes electrical parts, and is designed to operate as electric face equipment, as defined in Sec. 33.38, the application shall be in triplicate.

(f) The application shall state that the unit or system is completely developed and of the design and materials which the applicant believes to be suitable for a finished marketable product.

(g) The applicant shall furnish a complete unit or system for inspection and testing. Spare parts, such as gaskets and other expendable components subject to wear in normal operation, shall be supplied by the applicant to permit continuous operation during test periods. If special tools are necessary to disassemble any part for inspection or test, they shall be furnished by the applicant.

(h) Each unit or system shall be carefully inspected before it is shipped from the place of manufacture or assembly and the results of the inspection shall be recorded on a factory-inspection form. The applicant shall furnish MSHA with a copy of the factory-inspection form with his application. The form shall direct attention to the points that must be checked to make certain that all parts are in proper condition, complete in all respects, and in agreement with the drawings and specifications filed with MSHA.

(i) With the application the applicant shall furnish MSHA with complete instructions for operating and servicing the unit or system and information as to the kind of power required. After MSHA's investigation, if any revision of the instructions is required a revised copy thereof shall be submitted to MSHA for inclusion with the drawings and specifications.

Sec. 33.12 Changes after certification.

If an applicant desires to change any feature of a certified unit or system, he shall first obtain MSHA's approval of the change, pursuant to the following procedure:

(a)(1) Application shall be made as for an original certificate, requesting that the existing certification be extended to cover the proposed changes, and shall be accompanied by drawings, specifications, and related data showing the changes in detail.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(b) The application will be examined by MSHA to determine whether

inspection and testing will be required. Testing will be necessary if there is a possibility that the modification may affect adversely the performance of the unit or system. MSHA will inform the applicant whether such testing is required and the components or materials to be submitted for that purpose.

(c) If the proposed modification meets the requirements of this part and Part 18 of Subchapter D of this chapter (Bureau of Mines Schedule 2, revised, the current revision of which is Schedule 2F) if applicable, a formal extension of certification will be issued, accompanied by a list of new and corrected drawings and specifications to be added to those already on file as the basis for the extension of certification.

PART 35_FIRE-RESISTANT HYDRAULIC FLUIDS--Table of Contents

Subpart A_General Provisions

Sec. 35.6 Applications.

(a)(1) No investigation or testing will be undertaken by MSHA except pursuant to a written application, accompanied by a check, bank draft, or money order, payable to the U.S. Mine Safety and Health Administration, to cover the fees; and all descriptions, specifications, test samples, and related materials. The application and all related matters and correspondence concerning it shall be sent to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(3) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

(b) Descriptions and specifications shall be adequate in detail to identify fully the composition of the hydraulic fluid and to disclose its characteristics. Descriptions and specifications shall include:

(1) An identifying name or number of the fluid or concentrate for the production thereof.

(2) Pour point, [deg]F.; freezing point, [deg]F.; color; neutralization number or pH; viscosity at 100 [deg]F., 150 [deg]F., 175 [deg]F. (Saybolt or Furol); viscosity index; specific gravity.

(3) A statement of the water or other vehicle content in percent by weight or volume and how it affects fire resistance of the hydraulic fluid. If water is the vehicle, the statement shall include the applicant's method for determining water content quickly in the field.

(c) The application shall state whether the fluid submitted for test is toxic or irritating to the skin and what precautions are necessary in handling it.

(d) The application shall state that the applicant has tested the fluid which he believes to have fire-resistant properties, the basis for such determination, and submit with his application the data resulting from the applicant's use or laboratory tests to determine the fire-resistant properties of the fluid.

(e) The application shall contain evidence that the fluid has lubricating and hydraulic properties and is satisfactory for use in underground mining machinery; and shall state that the fluid, or concentrate for the production thereof, is fully developed and is of the composition that the applicant believes to be a suitable marketable product.

(f) The application shall state the nature, adequacy, and continuity

of control of the constituents of the fluid to maintain its fire-resistant characteristics and how each lot will be sampled and tested to maintain its protective qualities. MSHA reserves the right to have its qualified representative(s) inspect the applicant's control-test equipment, procedures, and records, and to interview the personnel who conduct the control tests to satisfy MSHA that the proper procedure is being followed to insure that the fire-resistant qualities of the hydraulic fluid are maintained.

(g) When MSHA notifies the applicant that the application will be accepted, it will also notify him as to the number of samples and related materials that will be required for testing. Ordinarily a 5-gallon sample of hydraulic fluid will be required provided that it is a finished product or, if in concentrate form, enough shall be furnished to make a 5-gallon sample when mixed with water or other vehicle according to the applicant's instructions. All samples and related materials required for testing must be delivered (charges prepaid) to Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

Sec. 35.12 Changes after certification.

If an applicant desires to change any specification or characteristic of a certified hydraulic fluid, he shall first obtain MSHA's approval of the change, pursuant to the following procedures:

(a)(1) Application shall be made, as for an original certificate of approval, requesting that the existing certification be extended to cover the proposed change. The application shall be accompanied by specifications and related material as in the case of an original application.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(b) The application and related material(s) will be examined by MSHA to determine whether testing of the modified hydraulic fluid will be required. Testing will be necessary if there is a possibility that the modification may affect adversely the performance characteristics of the fluid. MSHA will inform the applicant in writing whether such testing is required.

(c) If the proposed modification meets the requirements of this part, a formal extension of certification will be issued, accompanied by a list of new and corrected specifications to be added to those already on file, as the basis for the extension of certification.

## Subpart A_General Provisions

### Sec. 36.6 Applications.

(a)(1) No investigation or testing will be undertaken by MSHA except pursuant to a written application, accompanied by a check, bank draft, or money order, payable to the U.S. Mine Safety and Health Administration, to cover the fees; and all descriptions, specifications, test samples, and related materials. The application and all related matters and correspondence concerning it shall be sent to the Approval and Certification Center, Rural Route 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval under this part, the applicant must provide to MSHA as part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(3) An applicant may request testing and evaluation to non-MSHA product safety standards which have been determined by MSHA to be equivalent, under Sec. 6.20 of this chapter, to MSHA's product approval requirements under this part.

(b) Drawings, specifications, and descriptions shall be adequate in detail to identify fully the complete assembly, components, and subassemblies. Drawings, specifications, and descriptions shall include:

(1) Assembly drawing(s) showing the overall dimensions of the equipment, location and capacity of the fuel tank, location of flame arresters, exhaust-gas conditioner and its water-supply tank, if applicable, exhaust-gas dilution system, and other details that are essential to the functioning of the equipment.

(2) Except for equipment utilizing part 7, subpart F power packages, detailed drawings showing the intake, combustion, and exhaust systems of the diesel engine, including joints and gaskets; the turbulence or precombustion chamber, if applicable; injector assembly and nozzle details; and any surfaces that form the combustion chamber or part thereof, such as the cylinder head, piston and cylinder liner; and other features that may affect permissibility, such as exhaust-gas conditioner and flame arresters.

(3) Except for equipment utilizing part 7, subpart F power packages, a schematic drawing of the fuel system showing piping, connections, fuel filters, fuel-injection pump, and mechanical governor assembly. All components shall be identified to permit adjustment, as necessary, and the location of seals or locks to prevent tampering shall be indicated.

(4) Except for equipment utilizing part 7, subpart F power packages, drawing(s) specifying the kind of material and detailed dimensions of the components of explosion-proof enclosures, including joints and openings.

(5) Drawing(s) showing the construction of headlights, battery

boxes, including seals or locks, and method of mounting.

(6) Other drawings, specifications, or descriptions identifying any feature that MSHA considers necessary for certification of the particular mobile diesel-powered transportation equipment.

(c) Shipment of the mobile diesel-powered transportation equipment or component part or subassembly as the case may be, shall be deferred until MSHA has notified the applicant that the application will be accepted. Shipping instructions will be issued by MSHA and shipping charges shall be prepaid by the application. Upon completion of the investigation and notification thereof to the applicant by MSHA, the applicant shall remove his equipment promptly from the test site (see Sec. 36.40).

(d) The application shall state that the equipment is completely developed and of the design and materials that the applicant believes to be suitable for a finished marketable product or is a completely developed component or subassembly suitable for incorporation in a finished marketable complete assembly of mobile diesel-powered transportation equipment. If the final design of a component depends upon results of MSHA's tests, this shall be so stated in the application.

(e) For a complete investigation leading to approval and certification, the applicant shall furnish a complete operable assembly for inspecting and testing. Spare parts and expendable components, subject to wear in normal operation, shall be supplied by the applicant to permit continuous operation of the equipment during test periods. If special tools are necessary to disassembly any component for inspection or test, the applicant shall furnish these with the equipment to be tested.

(f) With each application, the applicant shall submit evidence of how he proposes to inspect his completely assembled mobile diesel-powered transportation equipment at the place of manufacture or assembly before shipment to purchasers. Ordinarily such inspection is recorded on a factory inspection form and the applicant shall furnish to MSHA a copy of his factory inspection form or equivalent with his application. The form shall direct attention to the points that must be checked to make certain that all components of the assembly are in proper condition, complete in all respects, and in agreement with the drawings, specifications, and descriptions filed with MSHA.

(g) With the application, the applicant shall furnish to MSHA complete instructions for operating and servicing his equipment. After completing MSHA's investigation, if any revision of the instructions is required, a revised copy thereof shall be submitted to MSHA for inclusion with the drawings and specifications.

Sec. 36.12 Changes after certification.

If an applicant desires to change any feature of certified equipment, he shall first obtain MSHA's approval of the change, pursuant to the following procedure:

(a)(1) Application shall be made, as for an original certificate of approval, requesting that the existing certification be extended to cover the proposed change. The application shall be accompanied by specifications and related material as in the case of an original application.

(2) Where the applicant for approval has used an independent laboratory under part 6 of this chapter to perform, in whole or in part, the necessary testing and evaluation for approval of changes to an approved product under this part, the applicant must provide to MSHA as

part of the approval application:

(i) Written evidence of the laboratory's independence and current recognition by a laboratory accrediting organization;

(ii) Complete technical explanation of how the product complies with each requirement in the applicable MSHA product approval requirements;

(iii) Identification of components or features of the product that are critical to the safety of the product; and

(iv) All documentation, including drawings and specifications, as submitted to the independent laboratory by the applicant and as required by this part.

(b) The application will be examined by MSHA to determine whether inspection and testing of the modified equipment or component or subassembly will be required. Testing will be necessary if there is a possibility that the modification may affect adversely the performance of the equipment. MSHA will inform the applicant whether such testing is required and the component, subassembly, and related material to be submitted for that purpose.

(c) If the proposed modification meets the requirements of this part, a formal extension of certification will be issued, accompanied by a list of new and corrected drawings and specifications to be added to those already on file as the basis for the extension of certification.