

SUPPORTING STATEMENT

Final Rule: Sealing of Abandoned Areas

30 CFR § 75.335 - Seal strengths, design applications, and installation

30 CFR § 75.336 – Sampling and monitoring requirements

30 CFR § 75.337 - Construction and repair of seals.

30 CFR § 75.337 - Training

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.

MSHA is issuing a final rule that revises MSHA's Emergency Temporary Standard (ETS) on sealing abandoned areas in underground coal mines. MSHA has concluded from its investigations of the 2006 Sago and Darby Mine explosions, experience from implementation and enforcement of the ETS, MSHA's in-mine seal evaluations and review of technical literature, the 2007 NIOSH Draft and Final Reports on explosion testing and modeling, the U.S. Army Corps of Engineers' Draft Report, accident reports, research studies, public comments, hearing transcripts and supporting documentation from all segments of the mining community that this rule is necessary to protect miners from the hazards of seal failure and the risk of explosions in abandoned areas of underground coal mines.

The final rule includes requirements to strengthen the design and construction of new seals and the maintenance and repair of all seals. It also increases the level of overpressure for new seals, thus implementing the new requirements of the Mine Improvement and New Emergency Response (MINER) Act of 2006. Furthermore, Section 10 of the final rule sets forth requirements for monitoring atmospheres behind seals, and specifies training requirements for persons constructing and repairing seals.

Section 103(h) of the Federal Mine Safety and Health Act of 1977 (Mine Act) authorizes MSHA to collect information necessary to carryout its duty in protecting the safety and health of miners, as follows:

(h) In addition to such records as are specifically required by this Act, every operator of a coal or other mine shall establish and maintain such records, make such reports, and provide such information, as the Secretary or the Secretary of Health, Education, and Welfare may reasonably require from time to time to enable him to perform his functions under this Act. * * *

The following provisions will affect information collection package, OMB 1219-0088 - Ventilation Plans, Tests and Examinations in Underground Coal Mines.

§ 75.335(c)(3). This provision requires the mine operator to revise the ventilation plan to provide information concerning seals that will be constructed. MSHA assumes that mine operators will include with this information a copy of the certifications required by §§ 75.335(c)(2) and (c)(3)(iii). MSHA assumes that this information is submitted each time a mine has worked out an area of the mine that it plans on sealing.

§ 75.336(a)(2). This provision requires the mine operator to revise the mine ventilation plan to include additional sampling locations and frequencies of sealed atmospheres as indicated by an evaluation of the sealed atmosphere or if requested by the District Manager.

§ 75.336(c). This provision specifies that, before miners reenter the mine after a withdrawal, the mine operator shall have a ventilation plan revision approved by the District Manager specifying the action to be taken to protect miners.

§ 75.337(f). This provision prohibits welding, cutting, and soldering activities within 150 feet of a seal, unless such work is approved by the District Manager in the ventilation plan.

Note: Revisions to the mine ventilation plan are made under existing § 75.370(a)(2). In addition, under §§ 75.370(a)(3)(iii) and (f), mine operators that make revisions to their ventilation plan need to post a copy of the revisions; and, for those mines that have a representative of miners, a copy of the revisions must be provided to them upon request.

The following provisions will affect information collection package, OMB 1219-0142 – Sealing of Abandoned Areas.

§ 75.335(b). This provision sets forth procedures for the approval of seal design applications.

§ 75.336(a)(2). This provision requires the mine operator to evaluate the atmosphere in the sealed area to determine whether sampling through the sampling pipes in seals provides appropriate sampling locations of the sealed area. This evaluation will be made for each area that has seals.

§ 75.336(c). This provision requires that mine operators immediately notify MSHA after a sample indicates that the oxygen concentration is 10 percent or greater and methane is between 4.5 percent and 17 percent and after taking the required additional sample from the sealed atmosphere with seals of less than 120 psi.

§ 75.336(e). This provision requires a certified person to record each sampling result, including the location of the sampling points and the oxygen and methane concentrations. Also, any hazardous conditions found must be corrected and recorded in accordance with existing § 75.363.

§ 75.337(c)(1)-(c)(5). This provision requires a certified person to perform several tasks during seal construction and repair and certify that the tasks were done in accordance with the approved ventilation plan. In addition, a mine foreman or equivalent mine official must countersign the record.

§ 75.337(d). This provision requires a senior mine management official to certify that the construction, installation, and materials used were in accordance with the approved ventilation plan.

§ 75.337(e). This provision requires the mine operator to notify MSHA of certain activities concerning the construction of a set of seals. Section 75.337(e)(1) requires the mine operator to notify the District Manager between 2 and 14 days prior to commencement of seal construction. Section 75.337(e)(2) requires the mine operator to notify the District Manager, in writing, within five days of completion of a set of seals and provide a copy of the certifications required in § 75.337(d). Section 75.337(e)(3) requires the mine operator to submit a copy of the quality control test results for seal material properties specified by § 75.335 within 30 days of completion of such tests.

§ 75.337(g)(3). This provision requires sampling pipes to be labeled to indicate the location of the sampling point when more than one sampling pipe is installed through a seal.

§ 75.338(a). This provision requires mine operators to certify that persons conducting sampling were trained in the use of appropriate sampling equipment, techniques, the location of sampling points, the frequency of sampling, the size and condition of sealed areas, and the use of continuous monitoring systems, if applicable, before they conduct sampling, and annually thereafter.

§ 75.338(b) This provision requires mine operators to certify that miners constructing or repairing seals, designated certified persons, and senior mine management officials were trained prior to constructing or repairing a seal and annually thereafter.

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.

Seals must be designed to withstand elevated pressures from explosions, and the atmosphere behind the seal must be monitored to prevent the sealed atmosphere from reaching the explosive range. Adequate seal design and monitoring of areas behind seals are crucial requirements to

prevent potentially explosive or toxic gases from migrating into the active working areas of underground coal mines. Miners rely on seals to protect them from the hazardous, and sometimes explosive, environments within the sealed area.

New Information Collection Requirements Recorded under OMB 1219-0088

The mine ventilation plan under the existing collection, OMB 1219-0088 - Ventilation Plans, Tests and Examinations in Underground Coal Mines, will be modified to include the certification requirements included in this rule. In addition, hazardous conditions will be recorded under OMB 1219-0088. The information is available to all interested persons at the mine to assure them that the seals constructed in mines are designed according to standards and that the atmosphere behind the seals is being monitored by certified personnel. MSHA inspectors use the records to determine that tests and examinations, required by the standards, are being done correctly.

New Information Collection Requirements Recorded under OMB 1219-0142

Records that will be collected under this rule will help assure that the construction and maintenance of seals are done correctly; certified persons conducting sampling in sealed areas are adequately trained; and results from sampling in sealed areas are recorded.

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.

This rule does not specify how records must be kept. Operators may retain records using any method they choose. Records could be kept in the traditional manner or stored electronically, provided they are secure and not susceptible to loss or alteration. No improved information technology has been identified that would reduce the burden.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

The information collection requirements in this rule: revisions to the mine ventilation plan that concern seals; certifications for seal construction and repair training; certifications for training pertaining to sampling behind seals; procedures for submitting seal design applications; recordkeeping for seal construction and repair; and, recording results of sampling behind seals are not duplicative of any existing MSHA requirements.

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.

MSHA has made available on our homepage, at <http://www.msha.gov>, various sources of information, such as “Technical Assistance,” “Best Practices,” “Training Plan Advisor,” and “Accident Prevention.” To assist with compliance, these sites provide tips and general information on a number of various topics.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

The final rule provides for recordkeeping requirements addressing seal design, monitoring of sealed atmospheres, construction and repair of seals, and training.

Seal designs must be submitted to MSHA for approval. The designs are reviewed by MSHA to help assure seals will protect miners from potential hazards within sealed areas. The mine operator must revise the ventilation plan when addressing hazards that could cause overpressures greater than 120 psi within the area to be sealed. The District Manager must have the opportunity to: review the seal design application; review the proposed ventilation plan revision; inspect the area to be sealed; verify that the proposals and documentation are appropriate and correct; before each area is sealed. The ventilation plan serves as a record of fact documenting mine specific policies that affect the health and safety of miners.

Mine operators are required to evaluate sampling results for hazardous conditions and adequacy of sampling locations and frequencies and change the ventilation plan accordingly. MSHA must have the opportunity to promptly review sampling results from sealed areas and related information to verify safe working conditions for miners. In addition, the mine operator is required to record hazardous conditions and the actions taken to correct the conditions. This documentation allows the operator and MSHA to review the events for effectiveness.

Immediate notification to MSHA of an atmospheric sampling result from a sealed area that indicates an oxygen concentration of 10 percent or greater and methane is between 4.5 percent and 17 percent gives MSHA an immediate opportunity to help respond to the hazardous condition. MSHA will have the opportunity to provide additional resources and information and verify safe working conditions for miners. In addition, mine operators must revise their ventilation plan specifying actions to be taken to address the explosion hazard and have it approved by MSHA before miners reenter the mine. Miners are assured healthier and safer working conditions when the mine operator follows an approved revised ventilation plan before they reenter the mine.

Mine operators must notify MSHA of, or provide information related to, seal construction activities each time a seal is constructed. Physical conditions of underground coal mines are highly variable and can affect the performance of seals. Using the required information, MSHA can assess the conditions of each construction site to help assure the seal design is appropriate and construction is performed correctly.

Miners constructing or repairing seals, designated certified persons, senior mine management officials and certified persons which conduct sampling must be trained prior to performing their tasks and annually thereafter. Miners must know the necessary skills before the tasks are performed to assure they are done correctly. Annual training assures these persons learn the most current skills and retain the necessary knowledge.

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

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

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

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

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

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

MSHA published the information collection requirements in the ETS on sealing of abandoned areas on May 22, 2007 (72 FR 28796). This document notified the public that these information collection requirements were being reviewed in accordance with the Paperwork Reduction Act of 1995, and gave interested persons 45 days to submit comments. The comment period, initially scheduled to close on July 6, 2007, was extended an additional 45 days to August 17, 2007 (72 FR 34609). Four public hearings were held. On August 14, 2007, MSHA extended the comment

period an additional 30 days (72 FR 45358). On December 19, 2007, MSHA published a notice (72 FR 71791) to reopen the comment period for an additional 30 days; to announce availability of a draft report prepared by the U.S. Army Corps of Engineers; and to schedule an additional public hearing.

The information collection package for the ETS, which also served as the proposal for this final rule, was approved by OMB under control numbers 1219-0142, for Sealing of Abandoned Areas; and 1219-0088, for Ventilation Plans, Tests, and Examinations in Underground Coal Mines.

Several commenters raised concerns regarding the ETS requirement that multiple persons must certify that seal construction was done correctly. Commenters stated that a certification by a senior mine manager is unnecessarily duplicative of the certification required by the certified person during construction and repair and the certification required by the professional engineer during the plan approval process. Some commenters stated that the certification requirement by a senior mine official is unreasonable and redundant because the official may not have expertise to make certification; the official may not have knowledge unless present during construction; a professional engineer is required to have “oversight;” the certified person directly supervises construction and makes a record of the exam; and the mine foreman countersigns the certified person’s record. Other commenters suggested modification of the ETS requirement either to allow a senior mine official to rely on reports from the professional engineer and certified person, or to allow a senior mine management official to countersign the official seal record book.

Based on MSHA’s experience regarding methane explosions in sealed areas and MSHA’s experience regarding the same certification requirements under the ETS, the Agency believes that some amount of redundancy is necessary when reviewing seal construction. Certifications by certified persons and senior mine management officials provides an added margin of safety for miners by helping assure that seals are correctly designed and constructed.

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

MSHA has provided no payments or gifts to the respondents identified in this collection.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

There is no assurance of confidentiality provided to respondents.

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

persons from whom the information is requested, and any steps to be taken to obtain their consent.

There are no questions of a sensitive nature.

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

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens in Item 13 of OMB Form 83-I.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 14.**

This final rule applies to 372 underground coal mines that use seals.

Final § 75.335(b) sets forth procedures for the approval of seal designs. MSHA estimates that 10 applications will be filed in the first year of the final rule, and 2 applications in the second year and every year thereafter. On average, MSHA estimates that a supervisor, earning \$71.34 per hour, takes 2 hours to prepare each application, and a clerical employee earning \$25.47 per hour, takes 1 hour to compile and submit the application. Table 1 shows, by mine size, the burden hours of and cost for approval of seal designs for the first year of the final rule and for every year thereafter.

Table 1: Annual Burden Hours and Cost for Preparation and Submission of Seal Approval Applications under §75.335(b)

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Year	No. of Seal Applications	Superv. Time (in hrs.)	Clerical Employee Time (in hrs.)	Superv. Annual Burden Hours ^a	Clerical Employee Annual Burden Hours ^b	Superv. Hourly Wage Rate	Clerical Employee Hourly Wage Rate	Annual Burden Cost ^c
First	10	2	1	20	10	\$71.34	\$25.47	\$1,682
Second	2	2	1	4	2	\$71.34	\$25.47	\$336
Third	2	2	1	4	2	\$71.34	\$25.47	\$336

^a Supervisor Annual Burden Hours = col. b x col. c.

^b Clerical Employee Annual Burden Hours = col. b x col. d.

^c Annual Burden Cost = (col. e x col. g) + (col. f x col. h).

Final § 75.335(c)(3) requires the mine operator to revise the ventilation plan in order to provide information concerning seals that will be constructed. The revision is required under existing § 75.370(a)(2). MSHA assumes that mine operators will include with this information a copy of the certifications required by final §§ 75.335(c)(2) and (c)(3)(iii). MSHA assumes that this information is submitted each time a mine has worked-out an area of the mine that it plans on sealing.

MSHA estimates that 66 mines with 1-19 employees, 237 mines with 20-500 employees, and 10 mines with 501+ employees will construct seals. The Agency assumes that the District Manager, in reviewing the proposed ventilation plan revisions, will require some changes. The mine operator will need to revise and resubmit the ventilation plan for approval. MSHA estimates that the initial and subsequent revisions and the required certifications will take a mine supervisor, earning \$71.34 per hour: 3 hours in mines with 1-19 employees; 6 hours in mines with 20-500 employees; and 9 hours in mines with 501+ employees. In addition, a clerical employee, earning \$25.47 per hour, is estimated to take 0.5 hours (30 minutes) to compile and submit the initial and subsequent revision materials.

Table 2 shows 2,522 total annual burden hours and an associated cost of \$170,746 to revise the mine ventilation plan for those mines that will seal.

Table 2: Annual Burden Hours and Costs to Revise the Ventilation Plan Concerning Seal Construction

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Mine Size	No. of Mines that Seal	Average No. of Worked-Out Areas Annually per Mine	Time to Certify & Revise Vent Plan (in hrs.)	Time to Compile & Submit Revised Pages (in hrs.)	Superv. Annual Burden Hours ^a	Clerical Employee Annual Burden Hours ^b	Superv. Hourly Wage Rate	Clerical Employee Hourly Wage Rate	Annual Burden Cost ^c
1-19	66	0.5	3	0.5	99	17	\$71.34	\$25.47	\$7,496
20-500	237	1.5	6	0.5	2,133	178	\$71.34	\$25.47	\$156,702
501+	10	1	9	0.5	90	5	\$71.34	\$25.47	\$6,548
Total	313				2,322	200			\$170,746

^a Supervisor Annual Burden Hours = col. b x col. c x col. d.

^b Clerical Employee Annual Burden Hours = col. b x col. c x col. e.

^c Annual Burden Cost = (col. f x col. h) + (col. g x col. i).

Under existing § 75.370(a)(3) and (f), operators with mines that revise ventilation plans need to post a copy of the revisions, and for operators with mines that have a miners' representative a copy of the revisions must be provided to the miner representative, upon request. MSHA assumes that 30 percent of operators with mines that seal will have a miners' representative, who will request a copy of the revisions.

MSHA estimates that to copy and post the initial and subsequent revisions and also to copy and provide the initial and subsequent revisions to the miners' representative takes a clerical worker, earning \$25.47 per hour, 0.5 hours (30 minutes). Table 3 shows 259 total annual burden hours and an associated cost of \$6,597 to copy and post and, when applicable, to provide a copy of the ventilation plan revisions to the miners' representative.

Table 3: Burden Hours and Cost to Copy and Post Revisions to the Ventilation Plan Concerning Seal Construction and Provide a Copy to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Mine Size	No. of Mines that Seal	Average No. of Worked-Out Areas Annually per Mine	Time to Copy & Post or to Copy & Provide Revisions to Miners' Representative (in hrs.)	Percentage of Mines Providing a Copy of Revisions to Miners' Rep.	Annual Burden Hours ^a	Clerical Employee Hourly Wage Rate	Annual Burden Cost ^b
1-19	66	0.5	0.5	30%	21	\$25.47	\$535
20-500	237	1.5	0.5	30%	231	\$25.47	\$5,884
501+	10	1	0.5	30%	7	\$25.47	\$178
Total	313				259		\$6,597

^a Annual Burden Hours = (col. b x col. c x col. d) + (col. b x col. c x col. d x col. e).

^b Annual Burden Cost = col. f x col. g.

Final § 75.336(a)(2) requires the mine operator to evaluate the atmosphere in the sealed area to determine whether sampling through the sampling pipes in seals provides appropriate sampling locations of the sealed area. This evaluation must be made for each area that will be sealed. On average, the annual number of worked-out areas is estimated to be: 0.5 for mines with 1-19 employees; 1.5 for mines with 20-500 employees; and 1 for mines with 501+ employees. MSHA estimates that it will take a chief engineer: 0.25 hours (15 minutes) for mines with 1-19 employees and 1 hour for mines with 20 or more employees, to write the results of the evaluation.

MSHA estimates a chief engineer's hourly wage rate of \$67.96 when the chief engineer is employed by the mine operator. For mines with 1-19 employees, MSHA estimates that 20 percent will use an in-house chief engineer. For mines with 20-500 employees, MSHA estimates that 90 percent will use an in-house chief engineer. For mines with 501+ employees, MSHA estimates that 100 percent will use an in-house chief engineer. The answer to Item 13 in this document shows the costs for mines that contract out in relation to this provision. Table 4 shows 332 total annual burden hours and an associated cost of \$22,563 for mines to write the evaluation results.

Table 4: Annual Burden Hours and Cost to Write Evaluation Results Under § 75.336(a)(2)

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Mine Size	No. of Mines That Seal	Percent of Mines That Conduct Training in House	Average No. of Worked-Out Areas Annually per Mine	Time to Write Evaluation Results (in hrs.)	Annual Burden Hours ^a	Engineer Hourly Wage Rate	Annual Burden Cost ^b
1-19	66	20%	0.5	0.25	2	\$67.96	\$136
20-500	237	90%	1.5	1	320	\$67.96	\$21,747
501+	10	100%	1	1	10	\$67.96	\$680
Total	313				332		\$22,563

^a Annual Burden Hours = col. b x col. c x col. d x col. e.

^b Annual Burden Cost = col. f x col. g.

Also, under final § 75.336(a)(2) the mine operator must revise the mine ventilation plan to include the additional sampling locations and frequencies. The revision is made under existing § 75.370(a)(2). MSHA assumes that the initial revisions will be sufficient and subsequent revisions will not have to be sent to the District Manager. Annually, MSHA estimates the number of revisions is: 3 revisions in mines with 1-19 employees; 12 revisions in mines with 20-500 employees; and 1 revision in a mine with 501+ employees. MSHA estimates that a supervisor, earning \$71.34 per hour, takes 0.25 hours (15 minutes) to write the one page revision, and a secretary, earning \$25.47 per hour, takes 0.1 hours (6 minutes) to copy and submit the revision. Table 5 shows 8 total annual burden hours and an associated cost of \$433 to submit revisions to the ventilation plan concerning additional sampling locations and frequencies.

Table 5: Annual Burden Hours and Cost to Revise Ventilation Plan Concerning Sampling Locations and Frequencies

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Mine Size	Revisions to Plan for Sampling Locations	Time to Make Revisions (in hrs.)	Time to Copy & Submit Revisions (in hrs.)	Supervisor Annual Burden Hours ^a	Clerical Employee Annual Burden Hours ^b	Supervisor Hourly Wage Rate	Clerical Employee Hourly Wage Rate	Annual Cost ^c
1-19	3	0.25	0.1	1	1	\$71.34	\$25.47	\$97
20-500	12	0.25	0.1	3	1	\$71.34	\$25.47	\$239
501+	1	0.25	0.1	1	1	\$71.34	\$25.47	\$97
Total	16			5	3			\$433

^a Supervisor Annual Burden Hours = Col. b x col. c.

^b Clerical Employee Burden Hours = Col. b x col. d.

^c Annual Cost = (col. e x col. g) + (col. f x col. h).

Under existing §§ 75.370(a)(3)(iii) and (f), operators with mines that revise ventilation plans must post a copy of the revisions. For those operators with mines that have a miners' representative, a copy of the revisions must be provided, upon request, to the miners' representative. MSHA assumes that 30 percent of the revisions will be made by operators in mines that have a miners' representative, who will request a copy of the revisions.

MSHA estimates that it takes 0.25 hours (15 minutes) to copy and post the initial and subsequent revisions and 0.25 hours to copy and provide the initial and subsequent revisions to the miners' representative. A clerical employee hourly wage is estimate to be \$25.47. Table 6 shows 6 total annual burden hours and an associated cost of \$152 to copy and post and provide a copy of the revision to the miners' representative.

Table 6: Annual Burden Hours and Cost to Copy and Post Revisions to the Ventilation Plan Concerning Sampling Locations and Frequencies and Provide a Copy to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Mine Size	Revisions to Plan for Sampling Locations	Time to Copy & Post or to Copy & Provide Revisions to Miners' Representative (in hrs.)	Percentage of Revisions Where a Copy of the Revisions are Provided to Miners' Representative	Annual Burden Hours ^a	Clerical Employee Hourly Wage Rate	Annual Burden Cost ^b
1-19	3	0.25	30%	1	\$25.47	\$25
20-500	12	0.25	30%	4	\$25.47	\$102
501+	1	0.25	30%	1	\$25.47	\$25
Total	16			6		\$152

^a Annual Burden Hours = (col. b x col. c.) + (col. b x col. c. x col. d).

^b Annual Burden Cost = col. e x col. f.

Under final § 75.336(e), a certified person must record each sampling result, including the location of the sampling points and the oxygen and methane concentrations. Also, any hazardous conditions found must be corrected and recorded in accordance with existing § 75.363. Annually, MSHA estimates that there will be 140 sampling results that show a hazardous condition (4 sampling results in a mine with 1-19 employees, 116 sampling results in mines with 20-500 employees, and 20 sampling results in a mine with 501+ employees).

MSHA estimates that to make a record takes: 0.05 hours (3 minutes) when there is no hazardous condition and an additional 0.05 hours (3 minutes) when a hazardous condition needs to be recorded. Table 7 shows 27,366 total annual burden hours and an associated cost of \$1,952,291 for making a sampling record.

Table 7: Annual Burden Hours and Cost to Make a Sampling Record under §75.336(e)

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Mine Size	Total No. of Annual Samples	No. of Annual Samples that Involve a Hazardous Condition	Time to Make a Record that Does Not Involve a Hazardous Condition (in hrs.)	Additional Time to Make a Record that Involves a Hazardous Condition (in hrs.)	Annual Burden Hours ^a	Certified Person Hourly Wage Rate	Annual Burden Cost ^b
1-19	41,104	4	0.05	0.05	2,055	\$71.34	\$146,604
20-500	473,950	116	0.05	0.05	23,703	\$71.34	\$1,690,972
501+	32,138	20	0.05	0.05	1,608	\$71.34	\$114,715
Total	547,192	140			27,366		\$1,952,291

^a Annual Burden Hours = (col. b x col. d) + (col. c x col. e).

^b Annual Burden Cost = col. f x col. g.

Final § 75.336(c) requires that before miners reenter the mine after a withdrawal, the mine operator must have a ventilation plan revision approved by the District Manager specifying the corrective action to be taken. The revision will be made under existing § 75.370(a)(2). On average, MSHA estimates that the total time for a supervisor, earning \$71.34 per hour, to make initial and subsequent revisions to the ventilation plan is: 0.5 hours (30 minutes) for mines with 1-19 employees, and 1 hour for mines with 20 or more employees. On average, the number of revised pages submitted is estimated to be: 2 pages for mines with 1-19 employees, and 4 pages for mines with 20 or more employees. In addition, MSHA estimates that a clerical person, earning \$25.47 per hour, takes a total of 0.5 hours (30 minutes) to copy and submit the initial and subsequent revisions. Table 8 shows 104 total annual burden hours and an associated cost of \$5,814 to revise and submit the ventilation plan in order for miners to enter the mine after a withdrawal.

Table 8: Annual Burden Hours and Cost to Revise Ventilation Plan To Allow Miners to Reenter the Mine under § 75.336(c)

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Mine Size	Plan Revisions Due to Withdrawals (per Year)	Time to Make Revisions (in hrs.)	Time to Copy & Submit Revisions (in hrs.)	Supervisor Annual Burden Hours ^a	Clerical Employee Annual Burden Hours ^b	Supervisor Hourly Wage Rate	Clerical Employee Hourly Wage Rate	Annual Cost ^c
1-19	2	0.5	0.5	1	1	\$71.34	\$25.47	\$97
20-500	58	1	0.5	58	29	\$71.34	\$25.47	\$4,876
501+	10	1	0.5	10	5	\$71.34	\$25.47	\$841
Total	70			69	35			\$5,814

^a Supervisor Annual Burden Hours = Col. b x col. c.

^b Clerical Employee Burden Hours = Col. b x col. d.

^c Annual Cost = (col. e x col. g) + (col. f x col. h).

Under existing §§ 75.370(a)(3)(iii) and (f), operators with mines that revise ventilation plans must post a copy of the revisions. For those operators with mines that have a miners' representative, a copy of the revisions must be provided, upon request, to the miners' representative. MSHA assumes that 30 percent of withdrawals occur in mines that have a miners' representative, who will request a copy of the revisions.

MSHA estimates that it takes 0.5 hours (30 minutes) to copy and post the initial and subsequent revisions and 0.5 hours to copy and provide the initial and subsequent revisions to the miners' representative. A clerical employee hourly wage is estimate to be \$25.47. Table 9 shows 46 total annual burden hours and an associated cost of \$1,171 to copy and post and, when applicable, to provide a copy of the revisions to the miners' representative.

Table 9: Annual Burden Hours and Cost to Copy and Post Revisions to the Ventilation Plan Concerning Miners Reentering the Mine and Provide a Copy to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Mine Size	Plan Revisions Due to Withdraw (per Year)	Time to Copy & Post or to Copy & Provide Revisions to Miners' Representative (in hrs.)	Percentage of Revisions Where a Copy of the Revisions are Provided Miners' Representative	Annual Burden Hours ^a	Clerical Employee Hourly Wage Rate	Annual Burden Cost ^b
1-19	2	0.5	30%	1	\$25.47	\$25
20-500	58	0.5	30%	38	\$25.47	\$968
501+	10	0.5	30%	7	\$25.47	\$178
Total	70			46		\$1,171

^a Annual Burden Hours = (col. b x col. c.) + (col. b x col. c. x col. d).

^b Annual Burden Cost = col. e x col. f.

Under final § 75.336(c) after mine operators take additional samples they must immediately notify MSHA. MSHA estimates that there will be 76 occurrences where mine operators will need to immediately notify MSHA. Of the 76 occurrences, MSHA estimates that: 3 occurrences will be in mines with 1-19 employees; 62 occurrences will be in mines with 20-500 employees; and 11 occurrences will be in mines with 501+ employees. MSHA estimates that a supervisor, earning \$71.34 per hour, will take 0.1 hours (6 minutes) to telephone MSHA. Table 10 shows 8 total annual burden hours and an associated cost of \$570 for mine operators to immediately notify MSHA.

**Table 10: Annual Burden Hours and Cost
To Notify MSHA under § 75.336(c)**

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	Annual No. of Occurrences Where an Additional Sample is Taken	Time to Notify (in hrs.)	Annual Burden Hours ^a	Supervisor Hourly Wage Rate	Annual Cost ^b
1-19	3	0.1	1	\$71.34	\$71
20-500	62	0.1	6	\$71.34	\$428
501+	11	0.1	1	\$71.34	\$71
Total	76		8		\$570

^a Annual Cost = col. b x col. c.

^b Annual Cost = col. d x col. e.

Under final § 75.337(c)(1)-(c)(5), a certified person must perform several tasks during seal construction and repair. A mine foreman or equivalent mine official must countersign the record. MSHA estimates that it takes 0.85 hours (51 minutes) to perform these functions. The 0.85 hours consists of: 0.75 hours (45 minutes) for the certified person to perform the requirements under final § 75.337(c)(1) through (c)(5), which include certifying that the tasks were done and making a record; and 0.1 hours (6 minutes) for a mine foreman or equivalent mine official to countersign the record made by the certified person. The certified person and mine foreman are estimated to earn \$71.34 per hour.

Final § 75.337(c) applies to both the construction of seals and the repair of existing seals. MSHA estimates that: 66 mines with 1-19 employees; 237 mines with 20-500 employees; and 10 mines with 501+ employees will construct seals. With respect to new seals, MSHA estimates that, on average, the annual number of new seals built per mine is: 3 seals in a mine with 1-19 employees; 9 seals in a mine with 20-500 employees; and 14 seals in a mine with 501+ employees. Annually, MSHA estimates that the number of existing seals to be repaired is approximately: 32 seals in mines with 1-19 employees (1,064 existing seals x 0.03); 364 seals in mines with 20-500 employees (12,147 existing seals x 0.03); and 22 seals in mines with 501+ employees (737 existing seals x 0.03). Thus, MSHA estimates that the number of seals to be constructed or repaired annually is:

- 230 seals for mines with 1-19 employees [198 new seals (66 mines x 3 seals built annually per mine)] + 32 existing seals;
- 2,497 seals for mines with 20-500 employees [2,133 new seals (237 mines x 9 seals built annually per mine)] + 364 existing seals; and
- 162 seals for mines with 501+ employees [140 new seals (10 mines x 14 seals built annually per mine)] + 22 existing seals].

Table 11 shows 2,456 total annual burden hours and an associated cost of \$175,211 for mine operators to certify exams, and make and countersign records, as required by final § 75.337(c).

**Table 11: Annual Burden Hours and Cost
To Certify Exams, Make Record, and Countersign
Seal Construction and Repair Records under §75.337(c)**

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	Annual No. of Seals Built & Repaired per Mine	Time to Examine, Certify, Record, & Countersign (in hrs.)	Annual Burden Hours ^a	Certified Person Hourly Wage Rate	Annual Burden Cost ^b
1-19	230	0.85	196	\$71.34	\$13,983
20-500	2,497	0.85	2,122	\$71.34	\$151,383
501+	162	0.85	138	\$71.34	\$9,845
Total	2,889		2,456		\$175,211

^a Annual Burden Hours = col. b x col. c.

^b Annual Burden Cost = col. d x col. e.

Under final § 75.337(d), a senior mine management official must certify that the construction, installation, and materials used were in accordance with the approved ventilation plan. On average, MSHA estimates that certification under final § 75.337(d), and submission of the certification as required by final § 75.337(e)(2), takes a senior mine management official 0.05 hours (3 minutes). Table 12 shows 124 total annual burden hours and an associated cost of \$11,504 related to the time to make the certification required by final § 75.337(d).

Table 12: Annual Burden Hours and Cost, under §§75.337(d) & 75.337(e)(2), to Certify that Construction, Installation, and Materials Used in Constructing Seals in Accordance with the Ventilation Plan

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	No. of New Seals Built per Year	Senior Management Official Time to Certify & Submit (in hrs.)	Senior Management Official Annual Burden Hours ^b	Senior Mine Management Official Hourly Wage Rate	Annual Cost ^c
1-19	198	0.05	10	\$92.78	\$928
20-500	2,133	0.05	107	\$92.78	\$9,927
501+	140	0.05	7	\$92.78	\$649
Total	2,471		124		\$11,504

^a Senior Management Official Annual Burden Hours = col. b x col. c.

^b Annual Cost = col. d x col. e.

Under final § 75.337(e), the mine operator must notify MSHA of certain activities concerning the construction of a set of seals. Final § 75.337(e)(1) requires the mine operator to notify the District Manager between 2 and 14 days prior to starting seal construction. Final § 75.337(e)(2) requires the mine operator to notify the District Manager, in writing, within five days of completion of a set of seals and provide a copy of the certifications required in paragraph (d). The burden hours and related cost for submitting a copy of the certifications required by paragraph (d) were determined above. Final § 75.337(e)(3) requires the mine operator to submit a copy of the quality control test results for seal material properties specified by final § 75.335 within 30 days of completion of such tests.

MSHA estimated that, on average, the number of sets of seals constructed annually is: 0.5 sets of seals in a mine with 1-19 employees, 1.5 sets of seals in a mine with 20-500 employees, and 1 set of seals in a mine with 501+ employees. MSHA estimates that a supervisor, earning \$71.34 per hour, takes 0.05 hours (3 minutes) to notify the District Manager between 2 and 14 days prior to commencement of seal construction. Also, MSHA estimates that a clerical employee, earning \$25.47 per hour, takes 0.2 hours (12 minutes) to prepare and send a letter notifying the District Manager of the completion of a set of seals and to copy and send the quality control test results. Table 13 shows 101 total annual burden hours and an associated cost of \$3,535 to notify MSHA concerning the requirements in final § 75.337(e).

**Table 13: Annual Burden Hours and Cost to Notify MSHA
Concerning Constructing Sets of Seals under §75.337(e)**

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Mine Size	No. of Mines That Will Seal	Annual No. of Sets of Seals Built per Mine	Time to Notify MSHA per Mine (in hrs.)	Time to Submit Data to MSHA per Mine (in hrs.)	Supervisor Annual Burden Hours ^a	Clerical Employee Annual Burden Hours ^b	Supervisor Hourly Wage Rate	Clerical Employee Hourly Wage Rate	Annual Burden Cost ^c
1-19	66	0.5	0.05	0.2	2	7	\$71.34	\$25.47	\$321
20-500	237	1.5	0.05	0.2	18	71	\$71.34	\$25.47	\$3,092
501+	10	1	0.05	0.2	1	2	\$71.34	\$25.47	\$122
Total	313				21	80			\$3,535

^a Supervisor Annual Burden Hours = col. b x col. c x col. d.

^b Clerical Burden hours = col. b x col. c x col. e.

^c Annual Burden Cost = (col. f x col. h) + (col. g x col. i).

Final § 75.337(f) prohibits welding, cutting, and soldering within 150 feet of a seal, unless such work is approved by the District Manager in the ventilation plan. MSHA estimates that mine operators will submit the following annual requests for a revision to the ventilation plan:

- 13 revisions in mines with 1-19 employees [(66 mines x 20 percent) x 1 occurrence per year];
- 119 revisions in mines with 20-500 employees [(237 mines x 50 percent) x 1 occurrence per year] and;
- 20 revisions in mines with 501+ employees [(10 mines x 100 percent) x 2 occurrences per year].

MSHA estimates that a supervisor takes 0.25 hours (15 minutes) to write the revision and a clerical worker takes 0.1 hours (6 minutes) to copy and submit the revision. Table 14 shows 53 total annual burden hours and an associated cost of \$3,093 to prepare and submit revisions to the ventilation plan in order to perform activities stated in final § 75.337(f).

Table 14: Annual Burden Hours and Cost to Revise Ventilation Plan to Permit Welding, Cutting and Soldering

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Mine Size	Revisions to Permit Welding Activities (per Year)	Time to Make Revision (in hrs.)	Time to Submit Revision (in hrs.)	Superv. Annual Burden Hours ^a	Clerical Employee Annual Burden Hours ^b	Superv. Hourly Wage Rate	Clerical Employee Hourly Wage Rate	Annual Burden Cost ^c
1-19	13	0.25	0.1	3	1	\$71.34	\$25.47	\$239
20-500	119	0.25	0.1	30	12	\$71.34	\$25.47	\$2,446
501+	20	0.25	0.1	5	2	\$71.34	\$25.47	\$408
Total	152			38	15			\$3,093

^a Supervisor Annual Burden Hours = col. b x col. c.

^b Clerical Employee Annual Burden Hours = col. b x col. d.

^c Annual Burden Costs = (col. e x col. g) + (col. f x col. h).

Under existing §§ 75.370(a)(3)(iii) and (f), operators with mines that make ventilation plan revisions need to post a copy of the revisions. For those operators with mines that have a miners' representative, a copy of the revisions must be provided, upon request. MSHA assumes that 30 percent of revisions will be made by operators with mines that have a miners' representative, who will request a copy of the revisions. MSHA estimates that it takes a clerical employee 0.25 hours (15 minutes) to copy and post the initial revision and 0.25 hours to copy and provide a copy of the revisions to the miners' representative. The clerical employee hourly wage is \$25.47. Table 15 shows 50 total annual burden hours and an associated cost of \$1,273 to copy and post and, when applicable, to provide a copy of the revisions to the miners' representative.

Table 15: Annual Burden Hours and Cost to Copy and Post Revisions to Ventilation Plan Concerning Welding, Cutting, and Soldering and Provide a Copy of to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)	(i)
Mine Size	Plan Revisions to Permit Welding Activities (per Year)	Time to Copy & Post or to Copy & Provide Revisions to Miners' Representative (in hrs.)	Percentage of Revisions Where a Copy of the Revisions area Provided Miners' Representative	Annual Burden Hours ^a	Clerical Employee Hourly Wage Rate	Annual Cost ^b
1-19	13	0.25	30%	4	\$25.47	\$102
20-500	119	0.25	30%	39	\$25.47	\$993
501+	20	0.25	30%	7	\$25.47	\$178
Total	152			50		\$1,273

^a Annual Burden Hours = (col. b x col. c) + (col. b x col. c x col. d).

^b Annual Cost = col. e x col. f.

Final § 75.337(g)(3) requires that sampling pipes be labeled to indicate the location of the sampling point when more than one sampling pipe is installed through a seal. Annually, MSHA estimates that such label will be necessary for 5 percent of all new seals. The number of sampling pipes to be labeled is:

- 10 seals in mines with 1-19 employees (66 mines x 3 seals per mine x 5 percent);
- 107 seals in mines with 20-500 employees (237 mines x 9 seals per mine x 5 percent); and
- 7 seals in mines with 501+ employees (10 mines x 14 seals per mine x 5 percent).

MSHA estimates that a miner, earning \$31.66 per hour, takes 0.1 hours (6 minutes) to label each sampling pipe. Table 16 shows 13 total annual burden hours and an associated cost of \$412 for mine operators to label sampling pipes.

Table 16: Annual Burden Hours and Cost to Label Sampling Pipes under §75.337(g)(3)

(a)	(b)	(c)		(d)	(e)
Mine Size	No. of Pipes to Label (per year)	Time to Label Pipes (in hrs.)	Annual Burden Hours ^a	Miner Hourly Wage Rate	Annual Cost ^b
1-19	10	0.1	1	\$31.66	\$32
20-500	107	0.1	11	\$31.66	\$348
501+	7	0.1	1	\$31.66	\$32
Total	124		13		\$412

^a Annual Burden Hours = col. b x col. c.

^b Annual Cost = col. d x col. e.

Final § 75.338(a) requires mine operators to certify that persons conducting sampling receive training on the use of appropriate sampling equipment, procedures, the location of sampling points, the frequency of sampling, the size and condition of sealed areas, and the use of continuous monitoring systems, if applicable, before conducting sampling, and annually thereafter. The number of mines estimated to initially train certified persons to sample is: 83 mines with 1-19 employees; 279 mines with 20-500 employees; and 10 mines with 501+ employees. These include all mines that have seals. MSHA estimates that a supervisor, earning \$71.34 per hour, takes 0.1 hours (6 minutes) to certify the training. Table 17 shows 37 total annual burden hours and an associated cost of \$2,640 to certify that persons were trained to conduct sampling.

Table 17: Annual Burden Hours and Cost to Certify that Persons Were Trained to Sample under §75.338(a)

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	No. of Mines that Sample Seals	Time to Certify (in hrs.)	Annual Burden Hours ^a	Supervisor Hourly Wage Rate	Annual Burden Cost ^b
1-19	83	0.1	8	\$71.34	\$571
20-500	279	0.1	28	\$71.34	\$1,998
501+	10	0.1	1	\$71.34	\$71
Total	372		37		\$2,640

^a Annual Burden Hours = col. b x col. c.

^b Annual Burden Cost = col. d x col. e.

Also under final § 75.338(a) due to annual turnover, MSHA estimates that 7 percent of the certified persons need to be trained annually in the use of appropriate sampling equipment, procedures, the location of continuous monitoring systems, if applicable. The estimated number of certified persons receiving training due to turnover is: 12 certified persons in all mines with 1-19 employees (83 mines x 2 certified persons x 0.07 turnover rate); 78 certified persons in all mines with 20-500 employees (279 mines x 4 certified persons x 0.07 turnover rate); and 4 certified persons in all mines with 501+ employees (10 mines x 6 certified persons x 0.07 turnover rate). Where a miner is trained due to turnover, training is assumed to be one-on-one and the certification is estimated to take 0.1 hours (6 minutes) for each person trained. Table 18 shows 10 total annual burden hours and an associated cost of \$713 to certify persons trained to sample due to turnover.

Table 18: Annual Burden Hours and Cost to Certify Miners Trained in Sampling Procedures under §75.338(a) Due to Miner Turnover

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	No. of Persons Trained	Time to Certify (in hrs.)	Annual Burden Hours ^a	Supervisor Hourly Wage Rate	Annual Burden Cost ^b
1-19	12	0.1	1	\$71.34	\$71
20-500	78	0.1	8	\$71.34	\$571
501+	4	0.1	1	\$71.34	\$71
Total	94		10		\$713

^a Annual Burden Hours = col. b x col. c.

^b Annual Burden Cost = col. d x col. e.

Under final § 75.338(b) mine operators need to certify that persons were trained in seal construction and repair. MSHA estimates that an instructor takes 0.1 hours (6 minutes) at each mine to certify that persons were trained in seal construction and repair under final § 75.338(b). The initial and annual retraining is assumed to take place at one time by one instructor. The training instructor's hourly wage rate is estimated to be \$67.96 when the training is provided in-house. The training is estimated to be conducted in-house for: 20 percent of mines with 1-19 employees; 70 percent of mines with 20-500 employees; and 90 percent of mines with 501+ employees. The answer to Item 13 in this document shows the costs for mines that contract out in relation to this provision. Table 19 shows 23 total annual burden hours and an associated cost of \$1,563 for mine operators to certify persons trained initially, and every year thereafter, in seal construction and repair.

Table 19: Annual Burden Hours and Cost to Certify That Persons Were Trained in Seal Construction and Repair under §75.338(b)

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Mine Size	No. of Mines that Build or Repair Seals	Percent of Mines That Conduct Training In-House	Time to Certify (in hrs.)	Annual Burden Hours ^a	Instructor Hourly Wage Rate	Annual Burden Cost ^b
1-19	83	20%	0.1	2	\$67.96	\$136
20-500	279	70%	0.1	20	\$67.96	\$1,359
501+	10	90%	0.1	1	\$67.96	\$68
Total	372			23		\$1,563

^a Annual Burden Hours = col. b x col. c col. d.

^b Annual Burden Cost = col. e x col. f.

Under final § 75.338(b) mine operators need to certify that persons were trained in seal construction and repair. Due to annual turnover, MSHA estimates that 7 percent of the persons will need to be trained annually in seal construction and repair. MSHA estimates that in-house training will occur in: 20 percent of mines with 1-19 employees; 70 percent of mines with 20-500 employees; and 90 percent of mines with 501+ employees. The number of persons receiving training due to turnover is: 5 persons in all mines with 1-19 employees $[(83 \text{ mines} \times 0.20) \times (2 \text{ miners} + 1 \text{ certified person} + 1 \text{ senior mine official}) \times 0.07 \text{ turnover rate}]$; 96 persons in all mines with 20-500 employees $[(279 \text{ mines} \times 0.70) \times (4 \text{ miners} + 2 \text{ certified person} + 1 \text{ senior mine official}) \times 0.07 \text{ turnover rate}]$; and 4 persons in all mines with 501+ employees $[(10 \text{ mines} \times 0.90) \times (4 \text{ miners} + 2 \text{ certified person} + 1 \text{ senior mine official}) \times 0.07 \text{ turnover rate}]$. Where a person is trained due to turnover, training is assumed to be one-on-one and certification is estimated to take 0.1 hours (6 minutes). The answer to Item 13 in this document shows the costs for mines that contract out in relation to this provision. Table 20 shows 12 total annual burden hours and an associated cost of \$816 to certify persons trained in seal construction and repair, due to turnover.

Table 20: Annual Burden Hours and Cost to Certify Persons Trained in Seal Construction and Repair under §75.338(b), Due to Mine Personnel Turnover

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	No. of Persons Trained	Time to Certify (in hrs.)	Annual Burden Hours ^a	Instructor Hourly Wage Rate	Annual Burden Cost ^b
1-19	5	0.1	1	\$67.96	\$68
20-500	96	0.1	10	\$67.96	\$680
501+	4	0.1	1	\$67.96	\$68
Total	105		12		\$816

^a Annual Burden Hours = col. b x col. c.

^b Annual Burden Cost = col. d x col. e.

SUMMARY OF PAPERWORK BURDEN HOURS AND RELATED COSTS

Item 12 Summary Tables

Table 21 provides a summary of the 33,560 burden hours for the first year that the rule is effective. Table 22 provides a summary of responses of 555,815 for the first year that the rule is in effect.

Table 21: Summary of Burden Hours

Description	Table No.	Burden Hours	
		1st Yr.	2nd Yr. & Every Yr. Thereafter
Submission of Seal Approval Applications	Table 1	30	6
Revise Ventilation Plan Concerning Seal Construction	Table 2	2,522	2,522
Provide & Post Revised Ventilation Plan Concerning Seal Construction	Table 3	259	259
Evaluation of Atmosphere	Table 4	332	332
Revise Ventilation Plan Concerning Sampling Locations & Frequencies	Table 5	8	8
Provide & Post Revised Ventilation Plan Concerning Sampling Locations & Frequencies	Table 6	6	6
Record Sampling Results	Table 7	27,366	27,366
Revise Ventilation Plan to Allow Miners to Reenter the Mine	Table 8	104	104
Provide & Post Revised Ventilation Plan to Allow Miners to Reenter the Mine	Table 9	46	46
Notify MSHA	Table 10	8	8
Certify Exam, Make Record & Countersign	Table 11	2,456	2,456
Certify That Construction Materials Used in Seals Are in Accordance with the Ventilation Plan	Table 12	124	124
Notification Concerning Seal Construction	Table 13	101	101
Revise Ventilation Plan to Permit Welding, Cutting, and Soldering	Table 14	53	53
Provide & Post Revised Ventilation Plan Concerning Welding, Cutting, and Soldering	Table 15	50	50
Label Sampling Pipes	Table 16	13	13
Certification of Persons Trained to Sample	Table 17	37	37
Certification of Persons Trained to Sample Due to Turnover	Table 18	10	10
Certification of Persons Trained in Seal Construction & Repair	Table 19	23	23
Certification of Persons Trained in Seal Construction & Repair Due to Turnover	Table 20	12	12
Total Burden Hours for Question 12		33,560	33,536

Table 22: Summary of Responses

Description	Table No.	Units	Average No. of Responses per Yr. per Mine	1st Yr. Responses	2nd Yr. & Every Yr. Thereafter Responses
Submission of Seal Approval Applications	Table 1	10/2	1	10	2
Revise Ventilation Plan Concerning Seal Construction	Table 2	313	1.274	399	399
Provide & Post Revised Ventilation Plan Concerning Seal Construction	Table 3	313	1.274	399	399
Evaluation of Atmosphere	Table 4	313	1.423	445	445
Revise Ventilation Plan Concerning Sampling Locations & Frequencies	Table 5	16	1	16	16
Provide & Post Revised Ventilation Plan Concerning Sampling Locations & Frequencies	Table 6	16	1	16	16
Record Sampling Results	Table 7	372	1,471	547,332	547,332
Revise Ventilation Plan to Allow Miners to Reenter the Mine	Table 8	70	1	70	70
Provide & Post Revised Ventilation Plan to Allow Miners to Reenter the Mine	Table 9	70	1	70	70
Notify MSHA	Table 10	76	1	76	76
Certify Exam, Make Record & Countersign for Seal Construction & Repair	Table 11	372	7.77	2,890	2,890
Certify That Construction Materials Used in Seals Are in Accordance with the Ventilation Plan	Table 12	313	7.9	2,473	2,473
Notification Concerning Seal Construction	Table 13	313	1.274	399	399
Revise Ventilation Plan to Permit Welding, Cutting, and Soldering	Table 14	152	1	152	152
Provide & Post Revised Ventilation Plan to Permit Welding, Cutting, and Soldering	Table 15	152	1	152	152
Label Sampling Pipes	Table 16	124	1	124	124
Certification of Persons Trained to Sample	Table 17	372	1	372	372
Certification of Persons Trained to Sample Due to Turnover	Table 18	94	1	94	94
Certification of Persons Trained in Seal Construction & Repair	Table 19	221	1	221	221
Certification of Persons Trained in Seal Construction & Repair Due to Turnover	Table 20	105	1	105	105
Total Responses				555,815	555,807

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.**

Final § 75.335(b) provides procedures for the approval of seal designs submitted to MSHA. The Agency estimates that in the first year 10 applications would be filed, and in the second year and every year thereafter 2 applications would be filed. Under final § 75.335(b)(1)(ii), for each application filed, a professional engineer must certify that the design of the seal is in accordance with current, prudent engineering practices. The professional engineer would be a contractor who works for the company filing the seal application. MSHA estimates that a professional engineer, earning \$125 per hour, would need 80 hours to review the application and perform the certification. In addition, each application would need to have 30 quality control tests analyzed at a price of \$90 for each test, which results in \$2,700 per application. MSHA assumes two copies will be made of the application at a cost of \$20 (\$10 per copy), and postage is estimated at \$16 per application. Table 23 shows yearly cost of \$127,360 in the first year for the engineers' time and \$25,472 each year thereafter.

Table 23: Yearly Cost for Engineers' Input to Seal Approval Applications under §75.335(b)

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Year	Seal Applications	Eng. Time (in hrs.)	Eng. Hourly wage Rate	Material Testing ^a	Copy and Postage	Yearly Cost
First	10	80	\$125	\$2,700	\$36	\$127,360
Second	2	80	\$125	\$2,700	\$36	\$25,472
Third	2	80	\$125	\$2,700	\$36	\$25,472

^a Yearly Cost = col. b x [(col. c x col. d) + col. e + col. f]

Final § 75.335(c)(2) requires that a professional engineer conduct or have oversight of seal installation and certify that the provisions in the approved seal design have been addressed and are applicable to the conditions at the mine. Also, final § 75.335(c)(3)(iii) requires that a professional engineer certify the mine map of the sealed area and seal locations. For these certifications, the professional engineer must examine the locations where seals will be constructed and revise the mine map. MSHA estimates that these activities will take a professional engineer: 16 hours in mines with 1-19 employees; 32 hours in mines with 20-500 employees; and 48 hours in mines with 501+ employees. Table 24 shows an annual cost of \$1,946,500 for a professional engineer to perform these activities

Table 24: Annual Cost for a Professional Engineer to Examine Mine-Specific Seal Installation and Revise the Mine Map under §75.335(c)

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	No. of Mines that Will Seal	Average No. of Worked-Out Areas Annually per Mine	Hours to Perform Work per Mine	Wage Rate of Professional Engineer	Annual Cost ^a
1-19	66	0.5	24	\$125	\$99,000
20-500	237	1.5	40	\$125	\$1,777,500
501+	10	1	56	\$125	\$70,000
Total	313				\$1,946,500

^a Annual Cost = col. b x col. c x col. d x col. e.

Final § 75.335(c)(3) requires the mine operator to revise the ventilation plan in order to provide information concerning seals that will be constructed. MSHA estimates that 66 mines with 1-19 employees, 237 mines with 20-500 employees, and 10 mines with 501+ employees will continue to construct seals. The mine operator will submit revisions to the mine ventilation plan to the District Manager.

A submission is made for each worked-out area. On average, MSHA estimates that per year the number of worked-out areas will be: 0.5 in a mine with 1-19 employees; 1.5 in a mine with 20-500 employees; and 1 in a mine with 501+ employees. The copy and postage cost for the initial and subsequent revisions are estimated to be:

- \$3.50 for a mine with 1-19 employees [(5 pgs. x \$0.15 per pg.) + \$1 postage) x 2 submissions] and;
- \$5.00 for a mine with 20 or more employees [(10 pgs. x \$0.15 per pg.) + \$1 postage x 2 submissions].

Table 25 shows an annual cost of \$1,944 to submit the mine ventilation plan revisions for those mines that construct seals after the final rule takes effect.

Table 25: Annual Cost to Copy and Submit Revisions to Ventilation Plan Concerning Seal Construction

(a)	(b)	(c)	(d)	(e)
Mine Size	No. of Mines That Will Seal	Average No. of Worked-Out Areas Annually per Mine	Copy & Postage Costs	Annual Cost ^a
1-19	66	0.5	\$3.50	\$116
20-500	237	1.5	\$5.00	\$1,778
501+	10	1	\$5.00	\$50
Total	313			\$1,944

^a Annual Cost = col. b x col. c x col. d.

Operators that revise ventilation plans will need to post a copy of their proposed and approved ventilation plan revisions submitted to MSHA. In addition, those mines that have a miners' representative must provide a copy of the revisions, upon request, to the miners' representative. MSHA assumes that 30 percent of mines that will continue to seal will have a miner's representative, who will request a copy of the revisions. Copy costs are estimated to be:

- \$1.50 for a mine with 1-19 employees [(5 pgs. X \$0.15 per pg.) x 2 submissions] and;
- \$3.00 for a mine with 20 or more employees [(10 pgs. X \$0.15 per pg.) x 2 submissions].

Postage is estimate to be \$2 (\$1 postage x 2 submissions). Table 26 shows an annual cost of \$1,729 to copy and post, and when applicable, to provide a copy of the revisions to the miners' representative.

Table 26: Annual Cost to Copy and Post Revisions to Ventilation Plan Concerning Seal Construction and Provide a Copy to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Mine Size	No. of Mines That Will Seal	Average No. of Worked-Out Areas Annually per Mine	Percentage of Mines Providing a Copy of Plan to Miners' Representative	Copy Cost	Postge Costs	Annual Cost ^a
1-19	66	0.5	30%	\$1.50	\$2.00	\$84
20-500	237	1.5	30%	\$3.00	\$2.00	\$1,600
501+	10	1	30%	\$3.00	\$2.00	\$45
Total	313					\$1,729

^a Annual Cost = (col. b x col. c x col. e) + (col. b x col. c x col. d x (col. e + Col.f)).

Final § 75.336(a)(2) requires the mine operator to evaluate the atmosphere in the sealed area to determine whether sampling through the sampling pipes in seals provides appropriate sampling locations of the sealed area. This evaluation must be made for each area that will be sealed. On average, the annual number of worked-out areas is estimated to be: 0.5 for mines with 1-19 employees; 1.5 for mines with 20-500 employees; and 1 for mines with 501+ employees. MSHA estimates that it will take a chief engineer: 0.25 hours (15 minutes) for mines with 1-19 employees and 1 hour for mines with 20 or more employees, to write the results of the evaluation.

MSHA estimates a chief engineer's hourly wage rate of \$101.94 when the chief engineer services are contracted out. For mines with 1-19 employees, MSHA estimates that 80 percent will contract out the services of a chief engineer. For mines with 20-500 employees, MSHA estimates that 10 percent will contract the services of a chief engineer. No mines with 501+ employees, will contract out the services of a chief engineer. Table 27 shows annual cost of \$4,297 for mines to contract the services of a chief engineer to write the evaluation results.

**Table 27: Annual Cost to Write
Evaluation Results Under § 75.336(a)(2)**

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Mine Size	No. of Mines That Seal	Percent of Mines That Conduct Out Training	Average No. of Worked-Out Areas Annually per Mine	Time to Write Evaluation Results (in hrs.)	Engineer Hourly Wage Rate	Annual Cost ^a
1-19	66	80%	0.5	0.25	\$101.94	\$673
20-500	237	10%	1.5	1	\$101.94	\$3,624
501+	10	0%	1	1	\$101.94	\$0
Total	313					\$4,297

^a Annual Cost = col. b x col. c x col. d x col. e x col. f.

Under final § 75.336(a), the mine operator must monitor methane and oxygen concentrations, and maintain an inert atmosphere in the sealed area. Existing MSHA regulations require oxygen measurements, therefore, underground coal mine operators already have equipment to measure oxygen at the concentration levels in the final rule. However, MSHA's existing regulations do not require underground coal mine operators to measure for methane at the concentration levels in the final rule. Therefore, operators that monitor will need to purchase a gas detector capable of measuring methane concentrations from 0 to 100 percent by volume.

The number of mines that will need to monitor seals is estimated to be: 83 mines with 1-19 employees; 279 mines with 20-500 employees; and 10 mines with 501+ employees. MSHA estimates that, on average, the number of methane gas detectors needed per mine is: 1 detector in mines with 1-19 employees; 1 to 2 detectors (an average of 1.5 detectors) in mines with 20-500 employees; and 2 detectors in mines with 501+ employees. The methane detector, including a tubing and calibration kit, is estimated to cost approximately \$2,114 (\$1,775 for detector with carrying case; \$8 for ten feet of tubing; and \$331 for calibration kit excluding gas cylinders). The methane detector is estimated to last for 5 years. Table 28 shows an annualized cost of \$268,998 for mine operators to purchase methane detectors to perform the monitoring. Annualized costs are obtained by multiplying first year costs by an annualization factor of 0.244, which reflects a 5-year life of the detector.

Table 28: First Year Cost and Annualized Cost for Methane Gas Detectors under §75.336

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	No. of Mines that Will Sample Seals	No. of Methane Detectors per Mine	Purchase Cost per Methane Detector	First Year Cost ^a	Annualized Cost
1-19	83	1	\$2,114	\$175,462	\$42,813
20-500	279	1.5	\$2,114	\$884,709	\$215,869
501+	10	2	\$2,114	\$42,280	\$10,316
Total	372			\$1,102,451	\$268,998

^a First Year Costs = col. b x col. c x col. d.

Under final § 75.336(a), maintenance for the purchased methane gas detector consists of: calibrating the instrument once a month, purchasing a probe filter once per year, and performing a bump test before each use. Annual calibration cost per detector is estimated to be \$16.56 (\$1.38 per liter of methane x 1 liter per calibration x 12 calibrations per year). In addition, one probe filter, costing \$6.25, is needed per detector each year. The annual cost for a daily bump tests, per detector, is estimated to be: \$179.40 (\$1.38 per liter x 0.5 liters x 260 workdays) for mines with 500 or fewer employees; and \$251.85 (\$1.38 per liter x 0.5 liters x 365 workdays) for mines with 501+ employees.

Therefore, the annual maintenance cost per detector is estimated to be approximately: \$202 (\$16.56 + \$6.25 + \$179.40) for mines with 500 or fewer employees; and \$275 (\$16.56 + \$6.25 + \$251.85) for mines with 501+ employees. Table 29 shows an annual cost of \$106,901 to maintain the purchased methane gas detectors.

Table 29: Annual Cost to Maintain Methane Gas Detectors under §75.336

(a)	(b)	(c)	(d)	(e)
Mine Size	No. of Mines that Will Sample Seals	No. of Methane Detectors per Mine	Maintenance Cost per Methane Detector	Annual Cost ^a
1-19	83	1	\$202	\$16,783
20-500	279	1.5	\$202	\$84,625
501+	10	2	\$275	\$5,493
Total	372			\$106,901

^a Annual Cost = col. b x col. c x col. d.

Under existing § 75.363(a), in the situation where a hazardous condition identified during sampling cannot be corrected immediately, the mine operator must post a danger sign. Annually, MSHA estimates that the number of times when a danger sign must be posted will be: 2 times in mines with 1-19 employees, 58 times in mines with 20-500 employees, and 10 times in mines with 501+ employees. MSHA estimates that 2 signs will be posted in each area where a hazardous condition is found through sampling. The cost of a danger sign is estimated to be \$10 (which includes the labor to put up the signs). Table 30 shows an annual cost of \$1,400 to post danger signs.

Table 30: Annual Costs to Post Danger Signs ^a

Mine Size	No. of Annual Samples that Involve Recording a Hazardous Condition and Result in Posting a Danger Sign	No. of Signs to Post at Each Sampled Site	Cost per Sign (includes labor cost)	Annual Cost
1-19	2	2	\$10	\$40
20-500	58	2	\$10	\$1,160
501+	10	2	\$10	\$200
Total	70			\$1,400

^a The requirement to post danger signs is under existing §75.363(a).

Under final § 75.336(a)(2) the mine operator will need to revise the mine ventilation plan to include the additional sampling locations and frequencies. MSHA assumes that the initial revisions will be sufficient, and subsequent revisions will not be needed. Annually, MSHA estimates the number of revisions is: 3 revisions in mines with 1-19 employees; 12 revisions in mines with 20-500 employees; and 1 revision in a mine with 501+ employees. Copy costs are \$0.15 per page for the one page revision and postage costs are \$1.00. Table 31 shows an annual cost of \$18 to submit revisions to the ventilation plan concerning additional sampling locations and frequencies.

Table 31: Annual Cost to Copy and Submit the Revisions to Ventilation Plan for Additional Sampling Locations and Frequencies

(a)	(b)	(c)	(d)	(e)
Mine Size	No. of Revisions to Plan for Sampling Locations	Copy Cost	Postage Costs	Annual Cost ^a
1-19	3	\$0.15	\$1.00	\$3
20-500	12	\$0.15	\$1.00	\$14
501+	1	\$0.15	\$1.00	\$1
Total	16			\$18

^a Annual Cost = col. b x (col. c + col. d).

Under existing §§ 75.370(a)(3)(iii) and (f), operators that revise ventilation plans must post a copy of the revisions; and for those operators with mines that have a miners' representative, a copy of the revisions must be provided, upon request, to the miners' representative. MSHA assumes that 30 percent of revisions will be made by operators with mines that have a miners' representative, who will request a copy of the revisions. Each revision is assumed to be 1 page. Estimated copy costs are \$0.15 per page and postage is \$1.00. Table 32 shows an annual cost of \$8 to copy and post and provide a copy of the revision under final § 75.336(a)(2) to the miners' representative.

Table 32: Annual Cost to Copy and Post Revisions to Ventilation Plan Concerning Sampling Locations and Frequencies and Provide a Copy to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	No. of Mines Revisions to Plan for Sampling Locations	Percentage of Mines Providing a Copy of Plan to Miners' Representative	Copy Cost	Postge Costs	Annual Cost ^a
1-19	3	30%	\$0.15	\$1.00	\$1
20-500	12	30%	\$0.15	\$1.00	\$6
501+	1	30%	\$0.15	\$1.00	\$1
Total	16				\$8

^a Annual Cost = (col. b x col. d) + (col. b x col. c x (col. d + col. e))

Final § 75.336(c) requires that before miners reenter the mine, the mine operator must have a revised ventilation plan approved by the District Manager specifying the corrective action to be taken. On average, the number of revised pages submitted is estimated to be: 2 pages for mines with 1-19 employees, and 4 pages for mines with 20 or more employees. MSHA estimates that the copy costs are:

- \$0.60 for mines with 1-19 employees [(2 pgs. x \$0.15) x 2 submissions] and;
- \$1.20 for mines with 20 or more employees [(4 pgs. x \$0.15) x 2 submissions].

Postage cost is \$2 (\$1 postage x 2 submissions). Table 33 shows an annual cost of \$223 to revise and submit the ventilation plan in order for miners to enter the mine after a withdrawal.

Table 33: Annual Cost to Copy and Submit the Revisions to Ventilation Plan to Allow Miners to Reenter the Mine

(a)	(b)	(c)	(d)	(e)
Mine Size	Plan Revisions Due to Withdraws (per Year)	Copy Cost	Postage Costs	Annual Cost ^a
1-19	2	\$0.60	\$2.00	\$5
20-500	58	\$1.20	\$2.00	\$186
501+	10	\$1.20	\$2.00	\$32
Total	70			\$223

^a Annual Cost = col. b x (col. c + col. d).

Under existing §§ 75.370(a)(3)(iii) and (f), operators that revise ventilation plans must post a copy of the revisions. For those operators with mines that have a miners' representative, a copy of the revisions must be provided, upon request, to the miners' representative. MSHA assumes that 30 percent of withdrawals occur in mines that have a miner's representative, who will request a copy of the revisions.

The copy cost for the initial and subsequent revisions is estimated to be: \$0.60 for a mine with 1-19 employees [(2 pgs. x \$0.15 per pg.) x 2 submissions] and; \$1.20 for a mine with 20 or more employees [(4 pgs. x \$0.15 per pg.) x 2 submissions]. Postage costs are estimated to be \$2.00 (\$1 postage cost x 2 submissions). Table 34 shows an annual cost of \$150 to copy and post and, when applicable, to provide a copy of the revisions to the miners' representative.

Table 34: Annual Cost to Copy and Post Revisions to Ventilation Plan Concerning Miners Reentering the Mine and Provide a Copy to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	Plan Revisions Due to Withdraws (per Year)	Percentage of Mines Providing a Copy of Plan to Miners' Representative	Copy Cost	Postge Costs	Annual Cost ^a
1-19	2	30%	\$0.60	\$2.00	\$3
20-500	58	30%	\$1.20	\$2.00	\$125
501+	10	30%	\$1.20	\$2.00	\$22.00
Total	70				\$150

^a Annual Cost = (col. b x col. d) + (col. b x col. c x (col. d + col. e)).

Under final § 75.337(d), upon completion of the construction of each seal, a senior mine manager must certify that the construction, installation, and materials used were in accordance with the approved ventilation plan. This certification is required to be submitted under final § 75.337(e)(2). Annually, MSHA estimates that the number of new seals is: 198 seals in mines with 1-19 employees; 2,133 seals in mines with 20-500 employees; and 140 seals in mines with 501+ employees. The certification is estimated to be one page. Postage is estimated to be \$1. The cost for submitting the certifications is \$1.15 [(1 pages x \$0.15 copy cost per page) + \$1 postage]. Table 35 shows an annual cost of \$2,842 to submit certifications under final § 75.337(e)(2).

Table 35: Annual Cost to Submit Certifications under §75.337(e)(2)

(a)	(b)	(c)	(d)
Mine Size	No. of New Seals Constructed per Year	Cost to Submit	Annual Cost ^a
1-19	198	\$1.15	\$228
20-500	2,133	\$1.15	\$2,453
501+	140	\$1.15	\$161
Total	2,471		\$2,842

^a Annual Cost = col. b x col. c.

Under final § 75.337(e), the mine operator must notify MSHA of certain activities concerning the construction of a set of seals. Final § 75.337(e)(1) requires the mine operator to notify the District Manager between 2 and 14 days prior to starting seal construction. Final § 75.337(e)(2) requires the mine operator to notify the District Manager, in writing, within five days of completion of a set of seals and provide a copy of the certifications required in paragraph (d). The cost to submit a copy of the certifications was determined in final § 75.337(d) above. Final § 75.337(e)(3) requires the mine operator to submit a copy of the quality control test results for seal material properties specified by final § 75.335 within 30 days of completion of such tests.

MSHA estimated that, on average, the number of sets of seals constructed annually per mine is: 0.5 sets of seals in a mine with 1-19 employees, 1.5 sets of seals in a mine with 20-500 employees, and 1 set of seals in a mine with 501+ employees. In addition, a copy of the letter of completion of a set of seals is estimated to be 1 page and a copy of the quality control test results is estimated to be 15 pages. MSHA estimates that copy costs are \$0.15 per page and postage costs are \$1. Postage will be charged twice because the letter of completion of a set of seals is not sent at the same time as the other material. Total copy and postage cost is estimated to be \$4.40 [(16 pages x \$0.15) + \$2 postage]. Table 36 shows an annual cost of \$1,753 to submit material to MSHA as required by final § 75.337(e).

**Table 36: Annual Cost to Notify MSHA
of Constructing Sets of Seals under §75.337(e)**

Mine Size	No. of Mines That Will Seal	Annual No. of Sets of Seals Built per Mine	Copy & Postage Cost	Annual Postage Costs
1-19	66	0.5	\$4.40	\$145
20-500	237	1.5	\$4.40	\$1,564
501+	10	1	\$4.40	\$44
Total	313			\$1,753

Final § 75.337(f) prohibits welding, cutting, and soldering within 150 feet of a seal, unless such work is approved by the District Manager in the ventilation plan. The revision will be made under existing § 75.370(a)(2). MSHA estimates that the number of revisions to the ventilation plan that District Managers will receive annually to perform the activities stated in final § 75.337(f) is:

- 13 revisions in mines with 1-19 employees [(66 mines x 20 percent) x 1 occurrence per year];
- 119 revisions in mines with 20-500 employees [(237 mines x 50 percent) x 1 occurrence per year] and;
- 20 revisions in mines with 501+ employees [(10 mines x 100 percent) x 2 occurrences per year].

Copy costs and postage for each revision are estimated to be \$1.15 [(1 page x \$0.15 copy cost) + \$1 for postage]. Table 37 shows an annual cost of \$175 for copying and postage to submit revisions to the ventilation plan in order to perform activities stated in final § 75.337(f).

**Table 37: Annual Copy and Postage Cost
for Revisions to Ventilation Plan to
Permit Welding under §75.337(f)**

(a)	(b)	(c)	(d)
Mine size	No. of Revisions per Year	Copy & Postage Costs	Annual Cost ^a
1-19	13	\$1.15	\$15
20-500	119	\$1.15	\$137
501+	20	\$1.15	\$23
Total	152		\$175

^a Annual Cost = col. b x col. c.

Under existing §§ 75.370(a)(3)(iii) and (f), operators with mines that revise ventilation plans must post a copy of the revisions. For operators with mines that have a miners' representative, a copy of the revisions must be provided, upon request, to the miners' representative. MSHA assumes that 30 percent of revisions will be made by operators with mines that have a miners' representative, who will request a copy of the revisions.

The copy cost for each revision is estimated to be \$0.15 (1 pg. x \$0.15 per pg.). Postage is estimated to be \$1.00. Table 38 shows an annual cost of \$75 to copy and post and, when applicable, to provide a copy of the revisions to the miners' representative.

Table 38: Annual Cost to Copy and Post Revisions to Ventilation Plan Concerning Welding, Cutting, and Soldering and Provide a Copy to Miners' Representative

(a)	(b)	(c)	(d)	(e)	(f)
Mine Size	Plan Revisions to Permit Welding Activities	Percentage of Mines Providing a Copy of Plan to Miners' Representative	Copy Cost	Postge Costs	Annual Cost ^a
1-19	13	30%	\$0.15	\$1.00	\$6
20-500	119	30%	\$0.15	\$1.00	\$59
501+	20	30%	\$0.15	\$1.00	\$10
Total	152				\$75

^a Annual Cost = (col. b x col. d) + (col. b x col. c x (col. d + col. e)).

Under final § 75.338(b) persons involved in seal construction and repair must be trained. Initially, MSHA estimates that an instructor takes 8 hours to train and 0.1 hours (6 minutes) to certify that persons were trained in seal construction and repair under final § 75.338(b). In the second year and every year thereafter training time is estimated to take 2 hours and certification is estimated at 6 minutes (0.1 hours). The training instructor's hourly wage rate is estimated to be \$101.94 when the training is contracted out. The training is estimated to be contracted out for: 80 percent of mines with 1-19 employees; 30 percent of mines with 20-500 employees; and 10 percent of mines with 501+ employees. Table 39 shows that first year costs were annualized by multiplying them by an annualization factor of 0.07 to arrive at \$8,734. The table also shows, annual cost of \$32,347 for mine operators to contract out the training and certification persons trained in seal construction and repair.

**Table 39: Annual Cost to Train and Certify Persons
in Seal Construction and Repair under §75.338(b)**

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Mine Size	No. of Mines that Build or Repair Seals	Percent of Mines That Conduct Training In House	Time to Train and Certify (in hrs.)	Instructor Hourly Wage Rate	First Year Cost ^a	First Year Cost Annualized	Cost in 2nd Year & every Year Thereafter ^b
1-19	83	80%	8.1	\$101.94	\$54,827	\$3,838	\$14,215
20-500	279	30%	8.1	\$101.94	\$69,112	\$4,838	\$17,918
501+	10	10%	8.1	\$101.94	\$826	\$58	\$214
Total	372				\$124,765	\$8,734	\$32,347

^a Annual Cost = col. b x col. c x col. d x col. e.

^b Cost in 2nd Year & Every Year Thereafter is the same formula as first year cost except time to train and certify is 2.1 hours.

Also, under final § 75.338(b) due to annual turnover persons will need to be trained in seal construction and repair. MSHA estimates that 7 percent of the persons will need to be trained annually in seal construction and repair. MSHA estimates that contracted out training will occur in: 80 percent of mines with 1-19 employees; 30 percent of mines with 20-500 employees; and 10 percent of mines with 501+ employees. The number of persons receiving training due to turnover is: 19 persons in all mines with 1-19 employees [(83 mines x 0.80) x (2 miners + 1 certified person + 1 senior mine official) x 0.07 turnover rate]; 41 persons in all mines with 20-500 employees [(279 mines x 0.30) x (4 miners + 2 certified person + 1 senior mine official) x 0.07 turnover rate]; and 1 person in all mines with 501+ employees [(10 mines x 0.10) x (4 miners + 2 certified person + 1 senior mine official) x 0.07 turnover rate]. Where a person is trained due to turnover, training is assumed to be one-on-one and is estimated to take 8 hours and 0.1 hours (6 minutes) for certification of the training. Table 40 shows annual cost of \$49,553 for contractors to train and certify persons in seal construction and repair, due to turnover.

**Table 40: Annual Cost to Train and Certify
Persons in Seal Construction and Repair
under §75.338(b), Due to Mine Personnel Turnover**

(a)	(b)	(c)	(d)	(e)
Mine Size	No. of Persons Trained	Time to Train and Certify (in hrs.)	Instructor Hourly Wage Rate	Annual Cost ^a
1-19	19	8.1	\$101.94	\$15,689
20-500	41	8.1	\$101.94	\$33,854
501+	1	0.1	\$101.94	\$10
Total	61			\$49,553

^a Annual Cost = col. b x col. c x col. d.

Table 41 shows a summary of the total Item 13 costs. The total cost in the first year for Item 13 is approximately \$2.5 million.

Table 41: Summary of Item 13 Costs

Description	Table No.	1st Yr. Cost	2nd Yr. & Every Yr. Thereafter
Cost for Seal Approval Applications	Table 23	\$127,360	\$25,472
Cost for Professional Engineer to Examine Mine Specific Seal Installation and Revise Mine Map	Table 24	\$1,946,500	\$1,946,500
Cost to Submit Revision to the Ventilation Plan Concerning Seal Construction	Table 25	\$1,944	\$1,944
Cost to Provide and Post Revision to the Ventilation Plan Concerning Seal Construction	Table 26	\$1,729	\$1,729
Cost for Evaluation	Table 27	\$4,297	\$4,297
Cost for Methane Gas Detectors	Table 28	\$268,998	\$268,998
Cost for Maintenance for Methane Gas Detectors	Table 29	\$106,901	\$106,901
Cost to Post Danger Signs	Table 30	\$1,400	\$1,400
Cost to Submit Revision Ventilation Plan Concerning Sampling Locations and Frequencies	Table 31	\$18	\$18
Cost to Provide and Post Revision to the Ventilation Plan Concerning Sampling Locations and Frequencies	Table 32	\$8	\$8
Cost to Submit Revision to the Ventilation Plan to Allow Miners to Reenter the Mine	Table 33	\$223	\$223
Cost to Provide and Post Revision to the Ventilation Plan to Allow Miners to Reenter the Mine	Table 34	\$150	\$150
Cost to Submit §75.337(e)(2) Certification	Table 35	\$2,842	\$2,842
Cost to Notify MSHA of Seal Construction	Table 36	\$1,753	\$1,753
Cost to Submit Revision to Ventilation Plan to Permit Welding, Cutting, and Soldering	Table 37	\$175	\$175
Cost to Provide and Post Revision to the Ventilation Plan to Permit Welding, Cutting, and Soldering	Table 38	\$75	\$75
Train and Certify in Seal Construction and Repair	Table 39	\$8,734	\$32,347
Train and Certify in Seal Construction and Repair Due to Turnover	Table 40	\$49,553	\$49,553
Total		\$2,522,660	\$2,444,385

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.

Applicants will need to submit seal designs to MSHA for approval. In addition, mine operators will need to modify their ventilation plans to address the requirements for sampling behind the seals, and seal design, construction, maintenance and repair. MSHA expects to review seal designs and ventilation plan revisions with existing personnel. Thus, there are no Federal costs associated with this collection of information package.

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

The burden hours apply to 372 mines that have seals. The burden hour estimate is 33,560. The burden hours have been reduced by approximately 48,500 hours from the ETS. The major reason for this reduction is that the burden for sampling was incorrectly included in both the burden hours and burden costs. In addition, burden hours have been reduced because the requirement in the ETS for mine operators to file sampling protocols and action plans in the mine ventilation plan has been deleted from the final rule. Also, the requirement for mine operators to prepare for training was inadvertently included as burden hours in the information collection package that accompanied the ETS.

The burden responses are 555,815. Burden responses have been reduced by approximately 337,300 responses from the ETS. The primary reason for this reduction is due to inadvertently counting responses for sampling twice under the ETS.

Total burden costs have increased slightly from \$2.3 million under the ETS to \$2.5 million under the final rule. This increased is primarily due to updated hourly wage rates.

The burden calculated for the first year used in this submission will change in the second and subsequent years and will be adjusted accordingly.

In this package there are 3,048 hours and \$4,322 costs that should be accounted under OMB information collection package 1219-0088. The adjustments are non-substantive, resulting in no material change for the ICR. See Item 1 for the provisions that apply to OMB information collection package 1219-0088.

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 additional 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 certification exceptions identified with this information collection.

B. Collection of Information Employing 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.

The collection of this information does not employ statistical methods.

RELEVANT STATUTORY AND REGULATORY PROVISIONS**Federal Mine Safety & Health Act of 1977,
Public Law 91-173,
as amended by Public Law 95-164*****An Act****TITLE I--GENERAL
MANDATORY SAFETY AND HEALTH STANDARDS**

SEC. 101. (b)(1) The Secretary shall provide, without regard to the requirements of chapter 5, title 5, United States Code, for an emergency temporary mandatory health or safety standard to take immediate effect upon publication in the Federal Register if he determines (A) that miners are exposed to grave danger from exposure to substances or agents determined to be toxic or physically harmful, or to other hazards, and (B) that such emergency standard is necessary to protect miners from such danger.

(2) A temporary mandatory health or safety standard shall be effective until superseded by a mandatory standard promulgated in accordance with the procedures prescribed in paragraph (3) of this subsection.

(3) Upon publication of such standard in the Federal Register, the Secretary shall commence a proceeding in accordance with section 101 (a), and the standards as published shall also serve as a proposed rule for the proceeding. The Secretary shall promulgate a mandatory health or safety standard under this paragraph no later than nine months after publication of the emergency temporary standard as provided in paragraph (2).

INSPECTIONS, INVESTIGATIONS, AND RECORDKEEPING

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

**UNITED STATES PUBLIC LAWS
109th Congress - Second Session
Convening January 7, 2005**

PL 109-236 (S 2803)

June 15, 2006

MINE IMPROVEMENT AND NEW EMERGENCY RESPONSE ACT OF 2006 (MINER ACT)

An Act To amend the Federal Mine Safety and Health Act of 1977 to improve the safety of mines and mining.

Be it enacted by the Senate and House of Representatives of the United States

of America in Congress assembled,

SEC. 10. SEALING OF ABANDONED AREAS.

Not later than 18 months after the issuance by the Mine Safety and Health Administration of a final report on the Sago Mine accident or the date of enactment of the Mine Improvement and New Emergency Response Act of 2006, whichever occurs earlier, the Secretary of Labor shall finalize mandatory health and safety standards relating to the sealing of abandoned areas in underground coal mines. Such health and safety standards shall provide for an increase in the 20 psi standard currently set forth in section 75.335(a)(2) of title 30, Code of Federal Regulations.

RELEVANT REGULATORY PROVISIONS:

§ 75.335 Seal strengths, design applications, and installation.

(b) Seal design applications. Seal design applications from seal manufacturers or mine operators shall be in accordance with paragraphs (b)(1) or (b)(2) of this section and submitted for approval to MSHA's Office of Technical Support, Pittsburgh Safety and Health Technology Center, P.O. Box 18233, Cochrans Mill Road, Pittsburgh, PA 15236.

(1) An engineering design application shall –

(i) Address gas sampling pipes, water drainage systems, methods to reduce air leakage, pressure-time curve, fire resistance characteristics, flame spread index, entry size, engineering design and analysis, elasticity of design, material properties, construction specifications, quality control, design references, and other information related to seal construction;

(ii) Be certified by a professional engineer that the design of the seal is in accordance with current, prudent engineering practices and is applicable to conditions in an underground coal mine; and

(iii) Include a summary of the installation procedures related to seal construction;

or

(2) Each application based on full scale explosion tests or other equivalent means of physical testing shall address the following requirements to ensure that a seal can reliably meet the seal strength requirements:

(i) Certification by a professional engineer that the testing was done in accordance with current, prudent engineering practices for construction in a coal mine;

(ii) Technical information related to the methods and materials;

(iii) Supporting documentation;

(iv) An engineering analysis to address differences between the seal support during test conditions and the range of conditions in a coal mine; and

(v) A summary of the installation procedures related to seal construction.

(3) MSHA will notify the applicant if additional information or testing is required. The applicant shall provide this information, arrange any additional or repeat tests, and provide prior notification to MSHA of the location, date, and time of such test(s).

(4) MSHA will notify the applicant, in writing, whether the design is approved or denied. If the design is denied, MSHA will specify, in writing, the deficiencies of the application, or necessary revisions.

(5) Once the seal design is approved, the approval holder shall promptly notify MSHA, in writing, of all deficiencies of which they become aware.

(c) Seal installation approval. The installation of the approved seal design shall be subject to approval in the ventilation plan. The mine operator shall –

(1) Retain the seal design approval and installation information for as long as the seal is needed to serve the purpose for which it was built.

(2) Designate a professional engineer to conduct or have oversight of seal installation and certify that the provisions in the approved seal design specified in this section have been addressed and are applicable to conditions at the mine. A copy of the certification shall be submitted to the District Manager with the information provided in paragraph (c)(3) of this section and a copy of the certification shall be retained for as long as the seal is needed to serve the purpose for which it was built.

(3) Provide the following information for approval in the ventilation plan –

(i) The MSHA Technical Support Approval Number;

(ii) A summary of the installation procedures;

(iii) The mine map of the area to be sealed and proposed seal locations that include the deepest points of penetration prior to sealing. The mine map shall be certified by a professional engineer or a professional land surveyor.

(iv) Specific mine site information, including –

(A) Type of seal;

(B) Safety precautions taken prior to seal achieving full design strength;

(C) Methods to address site-specific conditions that may affect the strength and applicability of the seal including set-back distances;

(D) Site preparation;

(E) Sequence of seal installations;

(F) Projected date of completion of each set of seals;

(G) Supplemental roof support inby and outby each seal;

(H) Water flow estimation and dimensions of the water drainage system through the seals;

(I) Methods to ventilate the outby face of seals once completed;

(J) Methods and materials used to maintain each type of seal;

(K) Methods to address shafts and boreholes in the sealed area;

(L) Assessment of potential for overpressures greater than 120 psi in sealed area;

(M) Additional sampling locations; and

(N) Additional information required by the District Manager.

§ 75.336 Sampling and monitoring requirements.

(a) A certified person as defined in § 75.100 shall monitor atmospheres of sealed areas. Sealed areas shall be monitored, whether ingassing or outgassing, for methane and oxygen concentrations and the direction of leakage.

(2) The mine operator shall evaluate the atmosphere in the sealed area to determine whether sampling through the sampling pipes in seals and approved locations provides appropriate sampling locations of the sealed area. The mine operator shall make the evaluation immediately after the minimum 14-day required sampling, if the mine ventilation system is reconfigured, if changes occur that adversely affect the sealed area, or if the District Manager requests an evaluation. When the results of the evaluations indicate the need for additional sampling locations, the mine operator shall provide the additional locations and have them approved in the ventilation plan. The District Manager may require additional sampling locations and frequencies in the ventilation plan.

(c) Except as provided in § 75.335(d), when a sample is taken from the sealed atmosphere with seals of less than 120 psi and the sample indicates that the oxygen concentration is 10 percent or greater and methane is between 4.5 percent and 17 percent, the mine operator shall immediately take an additional sample and then immediately notify the District Manager. When the additional sample indicates that the oxygen concentration is 10 percent or greater and methane is between 4.5 percent and 17 percent, persons shall be withdrawn from the affected area which is the entire mine or other affected area identified by the operator and approved by the District Manager in the ventilation plan, except those persons referred to in § 104(c) of the Act. The operator may identify areas in the ventilation plan to be approved by the District Manager where persons may be exempted from withdrawal. The operator's request shall address the location of seals in relation to: (1) areas where persons work and travel in the mine; (2) escapeways and potential for damage to the escapeways; and (3) ventilation systems and controls in areas where persons work or travel and where ventilation is used for escapeways. The operator's request shall also address the gas concentration of other sampling locations in the sealed area and other required information. Before miners reenter the mine, the mine operator shall have a ventilation plan revision approved by the District Manager specifying the actions to be taken.

(e) Recordkeeping. (1) The certified person shall promptly record each sampling result including the location of the sampling points, whether ingassing or outgassing, and oxygen and methane concentrations. The results of oxygen and methane samples shall be recorded as the percentage of oxygen and methane measured by the certified person and any hazardous condition found in accordance with § 75.363.

(2) The mine operator shall retain sampling records at the mine for at least one year from the date of the sampling.

§ 75.337 Construction and repair of seals.

(c) A certified person designated by the mine operator shall directly supervise seal construction and repair and –

(1) Examine each seal site immediately prior to construction or repair to ensure that the site is in accordance with the approved ventilation plan;

(2) Examine each seal under construction or repair during each shift to ensure that the seal is being constructed or repaired in accordance with the approved ventilation plan;

(3) Examine each seal upon completion of construction or repair to ensure that construction or repair is in accordance with the approved ventilation plan;

(4) Certify by initials, date, and time that the examinations were made; and

(5) Make a record of the examination at the completion of any shift during which an examination was conducted. The record shall include each deficiency and the corrective action taken. The record shall be countersigned by the mine foreman or equivalent mine official by the end of the mine foreman's or equivalent mine official's next regularly scheduled working shift. The record shall be kept at the mine for one year.

(d) Upon completion of construction of each seal a senior mine management official, such as a mine manager or superintendent, shall certify that the construction, installation, and materials used were in accordance with the approved ventilation plan. The mine operator shall retain the certification for as long as the seal is needed to serve the purpose for which it was built.

(e) The mine operator shall –

(1) Notify the District Manager between two and fourteen days prior to commencement of seal construction;

(2) Notify the District Manager, in writing, within five days of completion of a set of seals and provide a copy of the certification required in paragraph (d) of this section; and

(3) Submit a copy of quality control results to the District Manager for seal material properties specified by § 75.335 within 30 days of completion of quality control tests.

(f) Welding, cutting, and soldering. Welding, cutting, and soldering with an arc or flame are prohibited within 150 feet of a seal. An operator may request a different location in the ventilation plan to be approved by the District Manager. The operator's request must address methods the mine operator will use to continuously monitor atmospheric conditions in the sealed area during welding or burning; the airflow conditions in and around the work area; the rock dust and water application methods; the availability of fire extinguishers on hand; the procedures to maintain safe conditions, and other relevant factors.

(g) Sampling pipes.

(3) The sampling pipes shall be labeled to indicate the location of the sampling point when more than one sampling pipe is installed through a seal.

§ 75.338 Training.

(a) Certified persons conducting sampling shall be trained in the use of appropriate sampling equipment, procedures, location of sampling points, frequency of sampling, size and condition of the sealed area, and the use of continuous monitoring systems if applicable before they conduct sampling, and annually thereafter. The mine operator shall certify the date of training provided to certified persons and retain each certification for two years.

(b) Miners constructing or repairing seals, designated certified persons, and senior mine management officials shall be trained prior to constructing or repairing a seal and annually thereafter. The training shall address materials and procedures in the approved seal design and ventilation plan. The mine operator shall certify the date of training provided each miner, certified person, and senior mine management official and retain each certification for two years.