

1219-0146
2018

SUPPORTING STATEMENT

Information Collection Title: Refuge Alternatives for Underground Coal Mines

OMB No.: 1219-0146

Collection Instrument(s): None

30 CFR Citations:

Title

Section 75.1506(c)(2)

Refuge alternatives

Section 75.1507

Emergency Response Plan; refuge alternatives.

Section 75.1508(a) and (b)

Training and records for examination, maintenance, and repair of refuge alternatives.

General Instructions

A Supporting Statement, including the text of the notice to the public required by 5 CFR 1320.5(a)(i)(iv) and its actual or estimated date of publication in the Federal Register, must accompany each request for approval of a collection of information. The Supporting Statement must be prepared in the format described below, and must contain the information specified in Section A below. If an item is not applicable, provide a brief explanation. When the question "Does this ICR contain surveys, censuses or employ statistical methods" is checked "Yes", Section B of the Supporting Statement must be completed. OMB reserves the right to require the submission of additional information with respect to any request for approval.

Specific Instructions

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.**

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

Each underground coal mine has an emergency response plan (ERP) and refuge alternative(s) (RA) that protect miners by providing secure spaces with isolated atmospheres that create life-sustaining environments when escape from a mine during a mine emergency is not possible.

Section 75.1506 *Refuge alternatives.*

This section requires mine operators to provide RAs and components.

Section 75.1507 *Emergency Response Plan; refuge alternatives.*

This section requires the development and implementation of ERPs that provide detailed information about the RAs used in the mine. This information assists mine operators, miners, supervisors, emergency responders, and MSHA in assuring that all essential preparations are made and required materials are readily available and in working order. A mine operator may notify the District Manager and update the existing ERP if there is a need to locate an RA in a different location than the one identified in the ERP for that mine (required by section 75.1506(c)(2)).

Section 75.1508 *Training and records for examination, maintenance and repair of refuge alternatives and components.*

Section 75.1508(a) requires the mine operator to certify that persons assigned to examine, maintain, and repair RAs and components are trained for those tasks. Training certifications assist MSHA in determining that persons received the required training. The training certification for persons assigned to examine RAs is integrated into existing requirements for preshift examinations of the mine under section 75.360 (OMB No. 1219-0088). The training certification for persons assigned to maintain and repair RAs is included in this package under section 75.1508(a).

Section 75.1508(b) requires a record of any maintenance and repair performed on an RA. This record assists MSHA in identifying design flaws or other weaknesses in the RA or its components that could adversely impact the safety of miners.

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.

MSHA inspectors use the information from these records to verify that mine operators properly supply and maintain RAs, and in the event of an emergency, that miners will know when and where to seek refuge, that the immediate area of the refuge is secure from roof failure, and that maps are current and can be used by mine rescue teams to locate the sheltered miners.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

MSHA does not restrict mine operators from using any format or media for the collection of information. The records may be kept in a traditional format or stored electronically, provided they are secure and not susceptible to loss or alteration. MSHA encourages manufacturers and mine operators who store records electronically to provide a mechanism to allow the continued storage and retrieval of records for at least one year. Section 75.1508(c) requires the operator to maintain records for training certifications and repair records to be kept at the mine for one (1) year. Section 75.360(h) requires the RA pre-shift examination record to be retained for at least one year.

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.

MSHA integrated ERPs and RAs with existing requirements in 30 CFR part 75 for roof control plans; preshift examinations; mine ventilation, escapeway, and mine maps; and mine emergency evacuation and firefighting program of instruction. MSHA has minimized the information collection burden on mine operators by integrating various requirements into existing information collection packages instead of requiring separate and duplicative requirements.

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

Section 103(e) of the Mine Act directs the Secretary not to impose an unreasonable burden on small businesses when obtaining any information under the Mine Act. Accordingly, MSHA takes this directive and comments from the public into consideration when developing regulatory requirements. Different requirements for small and large mines exist when appropriate and consistent with ensuring the health and safety of miners. Similarly, MSHA approval regulations apply equally to all manufacturers to ensure that miners are protected from products that could cause a fire or explosion or other safety hazard when used. The standard minimized the information collection burden on small mines by: (1) requiring RAs for outby areas to be within 1 hour of an RA or safe exit; and (2) providing an alternative method that allows mine operators to determine the location or need for outby RAs by evaluating the risk to outby miners.

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 nature of underground coal mining is such that a mine emergency, such as a fire or explosion, can have disastrous consequences. The standards improve the mine operator's preparation for mine emergencies by providing a means to sustain miners trapped by an event that makes escape impossible. If the information collection is not

conducted or is conducted less frequently, the Agency could not adequately implement the requirements of the Mine Act and 30 CFR part 75.

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 a 60-day *Federal Register* notice on July 2, 2018 (83 FR 30983). MSHA received no public comments.

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. As a practical matter, the Department of Labor would only disclose information obtained pursuant to this information collection in accordance with the provisions of the Freedom of Information Act, 5 U.S.C. section 552, and its attendant regulations, 29 CFR part 70.

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

There are no questions of a sensitive nature.

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

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

Annual burden hours and related costs calculations are shown below. MSHA used data from the May 2017 Occupational Employment Statistics (OES) published by the Bureau

of Labor Statistics (BLS) for hourly wage rates¹ and adjusted the rates for benefits² and wage inflation³.

A. Refuge Alternatives

Under section 75.1506(c)(2), the mine operator may request and the District Manager may approve a different location for the RA in the ERP required by section 75.1507. The Agency estimates that there will be fourteen requests received annually to relocate the refuse alternative and that they are appended to the existing mine-specific ERP for each mine. There is no additional time or cost burden to the mine operator.

B. Emergency Response Plan

Section 75.1507 requires that the ERP include information about the RAs used in the mine, including a description of the types of RAs; procedures for transporting, maintaining, and using them; the rated capacity and expected number of occupants; the duration of breathable air per person; and suitable locations. MSHA estimates that, on average, there will be 10 new mines opened annually. The 10 mines will consist of 7 mines with 1-19 employees, 3 mines with 20-500 employees, and no mines with 501 or more employees.

MSHA assumes that each emergency response plan submitted will require changes in response to MSHA's evaluation of those plans. The Agency assumes these submissions and revisions will be performed by a supervisor at an hourly wage⁴ of \$55.54 and, on average, will take 12 hours for mines with 1-19 employees, 24 hours for mines with 20-500 employees, and 36 hours for mines with 501+ employees.

MSHA estimates that a clerical employee, working at a wage rate⁵ of \$27.25, will take a total of 6 minutes to copy and submit the emergency response plan information for mines with 1-19 employees, 12 minutes for mines with 20-500 employees, and 15 minutes for mines with 501+ employees.

¹ Options for obtaining OES data are available at item "E3. How to get OES data. What are the different ways to obtain OES estimates from this website?" at https://www.bls.gov/oes/oes_ques.htm.

² The benefit-scaler comes from BLS Employer Costs for Employee Compensation access by menu <http://www.bls.gov/data/> or directly with <http://download.bls.gov/pub/time.series/cm/cm.data.0.Current>. The data series CMU2030000405000P, Private Industry Total benefits for Construction, extraction, farming, fishing, and forestry occupations, is divided by 100 to convert to a decimal value. MSHA used the latest 4-quarter moving average 2017Qtr1-2017Qtr4 to determine that 32.9 percent of total loaded wages are benefits. MSHA computes the scaling factor with a number of detailed calculations but it may be approximated with the formula and values $1 + (\text{benefit percentage}/(1-\text{benefit percentage})) = 1 + (.329/(1-.329)) = 1.49$.

³ Wage inflation is the change in Series ID: CIS2020000405000I; Seasonally adjusted; Series Title: Wages and salaries for Private industry workers in Construction, extraction, farming, fishing, and forestry occupations, Index. (([https://beta.bls.gov/dataQuery/find?fq=survey:\[ci\]&s=popularity:D&q=CIS2020000405000I](https://beta.bls.gov/dataQuery/find?fq=survey:[ci]&s=popularity:D&q=CIS2020000405000I)); Qtr 1 2018/Qtr 2 2017; $131.2/128.7=1.019$)

⁴ Supervisor Wage is the employment weighted average for 4 Standard Occupational Classification Codes (SOC) for 4 separate occupational groups from the BLS May 2017 OES data for NAICS 212100, Coal Mining. Weighted average rate $\$55.54 = \36.58×1.49 benefit adjustment $\times 1.019$ inflation adjustment.

⁵ Clerical Wage is the employment weighted average for 4 Standard Occupational Classification Codes (SOC) for the clerical occupational general category 43 from the BLS May 2017 OES data for NAICS 212100, Coal Mining. Weighted average rate $\$27.25 = \17.95×1.49 benefit adjustment $\times 1.019$ inflation adjustment.

Annual Burden Hours for Emergency Response Plans (ERP) to Include Refuge Alternatives (RAs) under Section 75.1507

Mine Size	No. of New Mines Needing RAs	Time for Supervisor to Prepare ERP (in hours)	Super-visor Annual Burden Hours	Clerical Time to File ERP (in minutes)	Clerical Annual Burden Hours
1-19	7	12	84	6	
20-500	3	24	72	12	
501+	0	36	0	15	
Total*	10		156	33	1

*Hours rounded after totaling.

Annual Burden Hours Burden Cost for Emergency Response Plans (ERP) to Include Refuge Alternatives (RAs) under Section 75.1507

Wage Category	Burden Hours	Wage Rate	Burden Hours Cost
Supervisor	156	\$55.54	\$8,664
Clerical Person	1	\$27.25	\$27
Total	157		\$8,691

C. Certification of Training

Section 75.1508(a)(2) requires the mine operator to certify that persons assigned to examine, maintain, and repair RAs and components are trained.

MSHA estimates that training to examine RAs and components, and the certification of that training, will be integrated into the existing requirements that govern training for certified persons. Therefore, MSHA estimates no burden associated with this certification requirement.

For persons assigned to maintain and repair RAs and components, MSHA estimates that 2 miners per mine will receive training from the manufacturer as part of the purchase agreement. MSHA estimates that a record of the training will be made by a supervisor at an hourly wage of \$55.54 and will take about 3 minutes.

Annual Burden Hours and Cost to Certify Persons Trained in the Maintenance and Repair of Refuge Alternatives (RAs) and Components under Section 75.1508(a)(2)

Mine Size	No. of New Mines Needing RAs	Supervisor Time to Certify Maintenance and Repair Training (3 minutes x # of certifications)	Annual Burden Hours *	Annual Burden Cost (hours x \$55.54 rate)

1-19	10	30		
20-500	3	9		
501+	0	0		
Total	13	39	1	\$56

* Hours rounded after totaling

Section 75.1508(b) requires a record of each repair, including corrective action taken. MSHA estimates that the total number of repair and maintenance cases per year on all RAs will be: two in mines with 1-19 employees; 13 in mines with 20-500 employees; and two in mines with 501+ employees. MSHA estimates that recording of the maintenance and repair will be performed by a supervisor at an hourly wage of \$55.54 and will take about 1 minute for each event.

Annual Burden Hours and Cost to Make a Record of Maintenance and Repair of Refuge Alternatives and Components under Section 75.1508(b)

Mine Size	Total Refuge Alternative and Component Maintenance and Repairs per Year	Supervisor Time in Minutes to Make Record of Actions Taken (1 minute/record)	Annual Burden Hours*	Annual Burden Cost (hours x \$55.54 rate)
1-19	3	3		
20-500	13	13		
501+	2	2		
Total	13	18	1	\$56

^a Hours rounded only after totaling and totals less than 1 are rounded up to 1.

SUMMARY OF BURDEN HOURS AND RELATED COSTS FOR ITEM 12

The following two tables provide a summary of the total annual burden hours and annual burden cost.

Summary of Annual Burden Hours

Detail	Section	Burden Hours
Prepare & File Emergency Response Plan	75.1507	157
Certify Training to Transport, Maintain, and Repair RAs	75.1508(a)(2)	1
Record Repairs of RAs & Components	75.1508(b)	1
Total		159

Summary of Annual Burden Costs

Detail	Section	Total No. of Responses per Year	Annual Burden Cost
Prepare & File Emergency Response Plan	75.1507	10	\$8,691
Certify Training to Transport, Maintain, & Repair RAs	75.1508(a)(2)	13	\$56
Record Repairs of RAs & Components	75.1508(b)	13	\$56
Total		36	\$8,803

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 already reflected on the burden worksheet).

- **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.

Section 75.1507 requires that the ERP include the following for each RA and component: types and suitable locations of the units in use; procedures for transporting, maintaining, and using the unit; the unit's rated capacity; and duration of breathable air for each person. In addition the ERP will specify the methods for providing: breathable air; removal of carbon dioxide; backup oxygen controls and regulators; an airlock and breathable air in the airlock; sanitation facilities; harmful gas removal; monitoring of gas concentrations; and lighting.

For RAs, the ERP specifies that the breathable air components are MSHA approved, and the unit can withstand exposure to a flash fire of 300° Fahrenheit for three seconds. For RAs that sustain persons for only 48 hours, the ERP must describe advance arrangements that have been made to assure that persons who cannot be rescued within 48 hours will receive additional supplies to sustain them until rescued. The ERP also must specify that the RA is stocked with a specified amount of food and water per person, RA and component manuals, materials and tools sufficient to make repairs on the unit, and first-aid supplies.

MSHA estimates copy costs of \$0.15 per page. Postage costs are estimated to be \$1.00 for mines with 1-19 employees, \$2.00 for mines with 20-500 employees, and \$3 for mines with 501+ employees. MSHA estimates the combined cost for copying and postage \$2.80 for mines with 1-19 employees, \$5.60 for mines with 20-500 employees, and \$8.40 for mines with 501+ employees.

MSHA estimates annual cost of \$36 for mines to submit revised emergency response plans.

Annual Copy and Postage Cost to Submit Revised Emergency Response Plans Including Refuge Alternatives (RAs) under Section 75.1507

Mine Size	No. of Mines with RAs	Copy and Postage Cost per Mine to Submit Revised Emergency Response Plan	Annual Cost*
1-19	7	\$2.80	\$19.60

20-500	3	\$5.60	\$16.80
501+	0	\$8.40	\$0.00
Total	10		\$36.00

*Total is rounded.

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.

There are no Federal costs associated with this collection of information package.

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

Due to a decrease in respondents, burden hours, responses and costs have decreased.

	<u>Previous Submission</u>	<u>Current Submission</u>
Respondents:	16	10
Responses:	49	36
Costs:	\$50	\$36
Hours:	219	159

Itemized Changes in Annual Burden Hours to 1219-0146						
Changes in Estimates	Program Change (hours currently on OMB Inventory)	Program Change (New)	Difference	Adjustment (hours currently on OMB Inventory)	Adjustment (New)	Difference

Prepare & File Emergency Response Plan/ 75.1507				218	157	-61
Certify Training to Transport, Maintain, and Repair RAs/ 75.1508(a)(2)				0.8	1	.2
Record Repairs of RAs & Components/ 75.1508(b)				0.28	1	.72
Grand Total				219	159	-60

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 topics of the certification statement identified in, "Certification for Paperwork Reduction Act Submissions."

There are no certification exceptions identified with this information collection.

B. Collections of Information Employing Statistical Methods.

The collection of this information does not employ statistical methods.

RELEVANT STATUTORY AND REGULATORY PROVISIONS:

Consolidated Appropriations Act of 2008

SEC. 112. (a) * * *

(b) Not later than June 15, 2008, the Secretary of Labor shall propose regulations pursuant to section 315 of the Federal Coal Mine Health and Safety Act of 1969, consistent with the recommendations of the National Institute for Occupational Safety and Health pursuant to section 13 of the MINER Act (Public Law 109-236), requiring rescue chambers, or facilities that afford at least the same measure of protection, in underground coal mines. The Secretary shall finalize the regulations not later than December 31, 2008.

Mine Improvement and New Emergency Response (MINER) Act of 2006

SEC. 2. EMERGENCY RESPONSE.

* * * * *

“(a) * * *

“(b) **ACCIDENT PREPAREDNESS AND RESPONSE.—**

“(1) **IN GENERAL.—**Each underground coal mine operator shall carry out on a continuing basis a program to improve accident preparedness and response at each mine.

“(2) **RESPONSE AND PREPAREDNESS PLAN.—**

“(A) **IN GENERAL.—**Not later than 60 days after the date of enactment of the Mine Improvement and New Emergency Response Act of 2006, each underground coal mine operator shall develop and adopt a written accident response plan that complies with this subsection with respect to each mine of the operator, and periodically update such plans to reflect changes in operations in the mine, advances in technology, or other relevant considerations. Each such operator shall make the accident response plan available to the miners and the miners’ representatives.

“(B) **PLAN REQUIREMENTS.—**An accident response plan under subparagraph (A) shall—

“(i) provide for the evacuation of all individuals endangered by an emergency; and

“(ii) provide for the maintenance of individuals trapped underground in the event that miners are not able to evacuate the mine.

“(C) **PLAN APPROVAL.—**The accident response plan under subparagraph (A) shall be subject to review and approval by the Secretary. In determining whether to approve a particular plan the Secretary shall take into consideration all comments submitted by miners or their representatives. Approved plans shall—

“(i) afford miners a level of safety protection at least consistent with the existing standards, including standards mandated by law and regulation;

“(ii) reflect the most recent credible scientific research;

“(iii) be technologically feasible, make use of current commercially available technology, and account for the specific physical characteristics of the mine; and

“(iv) reflect the improvements in mine safety gained from experience under this Act and other worker safety and health laws.

“(D) PLAN REVIEW.—The accident response plan under subparagraph (A) shall be reviewed periodically, but at least every 12 months, by the Secretary. In such periodic reviews, the Secretary shall consider all comments submitted by miners or miners’ representatives and intervening advancements in science and technology that could be implemented to enhance miners’ ability to evacuate or otherwise survive in an emergency.

“(E) PLAN CONTENT – GENERAL REQUIREMENTS.—To be approved under subparagraph (C), an accident response plan shall include the following:

“(i) POST-ACCIDENT COMMUNICATIONS.—The plan shall provide for a redundant means of communication with the surface for persons underground, such as secondary telephone or equivalent two-way communication.

“(ii) POST-ACCIDENT TRACKING.—Consistent with commercially available technology and with the physical constraints, if any, of the mine, the plan shall provide for above ground personnel to determine the current, or immediately pre-accident, location of all underground personnel. Any system so utilized shall be functional, reliable, and calculated to remain serviceable in a post-accident setting.

“(iii) POST-ACCIDENT BREATHABLE AIR.—The plan shall provide for—

“(I) emergency supplies of breathable air for individuals trapped underground sufficient to maintain such individuals for a sustained period of time;

“(II) in addition to the 2 hours of breathable air per miner required by law under the emergency temporary standard as of the day before the date of enactment of the Mine Improvement and New Emergency Response Act of 2006, caches of self-rescuers providing in the aggregate not less than 2 hours per miner to be kept in escapeways from the deepest work area to the surface at a distance of no further than an average miner could walk in 30 minutes;

“(III) a maintenance schedule for checking the reliability of self rescuers, retiring older self-rescuers first, and introducing new self-rescuer technology, such as units with interchangeable air or oxygen cylinders not requiring doffing to replenish airflow and units with supplies of greater than 60 minutes, as they are approved by the Administration and become available on the market; and

“(IV) training for each miner in proper procedures for donning self rescuers, switching from one unit to another, and ensuring a proper fit.

“(iv) POST-ACCIDENT LIFELINES.— * * *.

“(v) TRAINING.— * * *.

“(vi) LOCAL COORDINATION.— * * *.

“(F) PLAN CONTENT – SPECIFIC REQUIREMENTS.—

“(i) IN GENERAL.—In addition to the content requirements contained in subparagraph (E), and subject to the considerations contained in subparagraph (C), the Secretary may make additional plan requirements with respect to any of the content matters.

“(ii) POST ACCIDENT COMMUNICATIONS.—Not later than 3 years after the date of enactment of the Mine Improvement and New Emergency Response Act of 2006, a plan shall, to be approved, provide for post accident communication between underground and surface personnel via a wireless two-way medium, and provide for an electronic tracking system permitting surface personnel to determine the location of any persons trapped underground or set forth within the plan the reasons such provisions cannot be adopted. Where such plan sets forth the reasons such provisions cannot be adopted, the plan shall also set forth the operator’s alternative means of compliance.

Such alternative shall approximate, as closely as possible, the degree of functional utility and safety protection provided by the wireless two-way medium and tracking system referred to in this subpart.

“(G) PLAN DISPUTE RESOLUTION.— * * *

* * * * *

Federal Mine Safety & Health Act of 1977 (Mine Act)

MANDATORY SAFETY AND HEALTH STANDARDS

SEC. 101. (a) The Secretary shall by rule in accordance with procedures set forth in this section and in accordance with section 553 of title 5, United States Code (without regard to any reference in such section to sections 556 and 557 of such title), develop, promulgate, and revise as may be appropriate, improved mandatory health or safety standards for the protection of life and prevention of injuries in coal or other mines.

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.

RELEVANT REGULATORY PROVISIONS:

Section 75.1506 Refuge alternatives. [1219-0146] not included in Public Review Draft

(a) Each operator shall provide refuge alternatives and components as follows:

(1) Prefabricated self-contained units, including the structural, breathable air, air monitoring, and harmful gas removal components of the unit, shall be approved under 30 CFR part 7; and

(2) The structural components of units consisting of 15 psi stoppings constructed prior to an event shall be approved by the District Manager, and the breathable air, air monitoring, and harmful gas removal components of these units shall be approved under 30 CFR part 7.

(3) Prefabricated refuge alternative structures that states have approved and those that MSHA has accepted in approved Emergency Response Plans (ERPs) that are in service prior to March 2, 2009 are permitted until December 31, 2018, or until replaced, whichever comes first. Breathable air, air-monitoring, and harmful gas removal components of either a prefabricated self-contained unit or a unit consisting of 15 psi stoppings constructed prior to an event in a secure space and an isolated atmosphere that states have approved and those that MSHA has accepted in approved ERPs that are in use prior to March 2, 2009 are permitted until December 31, 2013, or until replaced, whichever comes first. Refuge alternatives consisting of materials pre-positioned for miners to deploy in a secure space with an isolated atmosphere that MSHA has accepted in approved ERPs that are in use prior to March 2, 2009 are permitted until December 31, 2010, or until replaced, whichever comes first.

(b) Except as permitted under paragraph (a)(3) of this section, each operator shall provide refuge alternatives with sufficient capacity to accommodate all persons working underground.

(1) Refuge alternatives shall provide at least 15 square feet of floor space per person and 30 to 60 cubic feet of volume per person according to the following chart. The airlock can be included in the space and volume if waste is disposed outside the refuge alternative.

Mining height (inches)	Unrestricted volume (cubic feet) per person*
36 or less.....	30
>36-<=42.....	37.5
>42-<=48.....	45
>48-<=54.....	52.5
>54.....	60

* Includes an adjustment of 12 inches for clearances.

(2) Refuge alternatives for working sections shall accommodate the maximum number of persons that can be expected on or near the section at any time.

(3) Each refuge alternative for outby areas shall accommodate persons reasonably expected to use it.

(c) Refuge alternatives shall be provided at the following locations:

(1) Within 1,000 feet from the nearest working face and from locations where mechanized mining equipment is being installed or removed except that for underground anthracite coal mines that have no electrical face equipment, refuge alternatives shall be provided if the nearest working face is greater than 2,000 feet from the surface.

(2) Spaced within one-hour travel distances in outby areas where persons work such that persons in outby areas are never more than a 30- minute travel distance from a refuge alternative or safe exit. However, the operator may request and the District Manager may approve a different location in the ERP. The operator's request shall be based on an assessment of the risk to persons in outby areas, considering the following factors: proximity to seals; proximity to potential fire or ignition sources; conditions in the outby areas; location of stored SCSRs; and proximity to the most direct, safe, and practical route to an intake escapeway.

(d) Roof and rib support for refuge alternative locations shall be specified in the mine's roof control plan. [1219-0004]

(e) The operator shall protect the refuge alternative and contents from damage during transportation, installation, and storage.

(f) A refuge alternative shall be removed from service if examination reveals damage that interferes with the functioning of the refuge alternative or any component.

(1) If a refuge alternative is removed from service, the operator shall withdraw all persons from the area serviced by the refuge alternative, except those persons referred to in Sec. 104(c) of the Mine Act.

(2) Refuge alternative components removed from service shall be replaced or be repaired for return to service in accordance with the manufacturer's specifications.

(g) At all times, the site and area around the refuge alternative shall be kept clear of machinery, materials, and obstructions that could interfere with the deployment or use of the refuge alternative.

(h) Each refuge alternative shall be conspicuously identified with a sign or marker as follows:

(1) A sign or marker made of a reflective material with the word "REFUGE" shall be

posted conspicuously at each refuge alternative.

(2) Directional signs made of a reflective material shall be posted leading to each refuge alternative location.

(i) During use of the refuge alternative, the atmosphere within the refuge alternative shall be monitored. Changes or adjustments shall be made to reduce the concentration of methane to less than 1 percent; to reduce the concentration of carbon dioxide to 1 percent or less and excursions not exceeding 2.5 percent; and to reduce the concentration of carbon monoxide to 25 ppm or less. Oxygen shall be maintained at 18.5 to 23 percent.

(j) Refuge alternatives shall contain a fire extinguisher that--

(1) Meets the requirements for portable fire extinguishers used in underground coal mines under this part;

(2) Is appropriate for extinguishing fires involving the chemicals used for harmful gas removal; and

(3) Uses a low-toxicity extinguishing agent that does not produce a hazardous by-product when activated.

Section 75.1507 Emergency Response Plan; refuge alternatives.

(a) The Emergency Response Plan (ERP) shall include the following for each refuge alternative and component:

(1) The types of refuge alternatives used in the mine, i.e., a prefabricated self-contained unit or a unit consisting of 15 psi stoppings constructed prior to an event in a secure space and an isolated atmosphere.

(2) Procedures or methods for maintaining approved refuge alternatives and components.

(3) The rated capacity of each refuge alternative, the number of persons expected to use each refuge alternative, and the duration of breathable air provided per person by the approved breathable air component of each refuge alternative.

(4) The methods for providing breathable air with sufficient detail of the component's capability to provide breathable air over the duration stated in the approval.

(5) The methods for providing ready backup oxygen controls and regulators.

(6) The methods for providing an airlock and methods for providing breathable air in the airlock, except where adequate positive pressure is maintained.

(7) The methods for providing sanitation facilities.

(8) The methods for harmful gas removal, if necessary.

(9) The methods for monitoring gas concentrations, including charging and calibration of equipment.

(10) The method for providing lighting sufficient for persons to perform tasks.

(11) Suitable locations of for the refuge alternatives and an affirmative statement that the locations are—

(i) Not within direct line of sight of the working face; and

(ii) Where feasible, not placed in areas directly across from, nor closer than 500 feet radially from, belt drives, take-ups, transfer points, air compressors, explosive magazines, seals, entrances to abandoned areas, and fuel, oil, or other flammable or combustible material storage. However, the operator may request and the District Manager may approve an alternative location in the ERP if mining involves two-entry systems or yield pillars in a longwall that would prohibit locating the refuge alternative out of direct line of sight of the working face.

(12) The maximum mine air temperature at each of the locations where refuge alternatives are to be placed.

(b) For a refuge alternative consisting of 15 psi stoppings constructed prior to an event in a secure space and an isolated atmosphere, the ERP shall specify that—

(1) The breathable air components shall be approved by MSHA; and

(2) The refuge alternative can withstand exposure to a flash fire of 300 degrees Fahrenheit (°F) for 3 seconds and a pressure wave of 15 pounds per square inch (psi) overpressure for 0.2 seconds.

(c) If the refuge alternative sustains persons for only 48 hours, the ERP shall detail advanced arrangements that have been made to assure that persons who cannot be rescued within 48 hours will receive additional supplies to sustain them until rescue. Advance arrangements shall include the following:

(1) Pre-surveyed areas for refuge alternatives with closure errors of less than 20,000:1.

(2) An analysis to indicate demonstrate that the surface terrain, the strata, the capabilities of the drill rig, and all other factors that could affect drilling are such that a hole sufficient to provide required supplies and materials reliably can be promptly drilled within 48 hours of an accident at a mine.

(3) Permissions to cross properties, build roads, and construct drill sites.

(4) Arrangement with a drilling contractor or other supplier of drilling services to provide a suitable drilling rig, personnel and support so that a hole can be completed to the refuge alternative within 48 hours.

(5) Capability to promptly transport a drill rig to a pre-surveyed location such that a drilled hole would be completed and located near a refuge alternative structure within 48 hours of an accident at a mine.

(6) The specifications of pipes, air lines, and approved fans or approved compressors that will be used.

(7) A method for assuring that within 48 hours, breathable air shall be provided.

(8) A method for assuring the immediate availability of a backup source for supplying breathable air and a backup power source for surface installations.

(d) The ERP shall specify that the refuge alternative is stocked with the following:

(1) A minimum of 2,000 calories of food and 2.25 quarts of potable water per person per day in approved containers sufficient to sustain the maximum number of persons reasonably expected to use the refuge alternative for at least 96 hours, or for 48 hours if advance arrangements are made under paragraph (c) of this section;

(2) A manual that contains sufficient detail for each refuge alternative or component addressing in-mine transportation, operation, and maintenance of the unit;

(3) Sufficient quantities of materials and tools to repair components; and

(4) First aid supplies.

Section 75.1508 Training and records for examination, maintenance, and repair of refuge alternatives and components.

(a) Persons examining, maintaining, or repairing refuge alternatives and components shall be instructed in how to perform this work.

(1) The operator shall assure that all persons assigned to examine, maintain, and repair refuge alternatives and components are trained.

(2) The mine operator shall certify, by signature and date, the training of persons who examine, maintain, and repair refuge alternatives and components.

(b) At the completion of each repair, the person conducting the maintenance or repair shall make a record of all corrective action taken.

(c) Training certifications and repair records shall be kept at the mine for one year.