federal register

Thursday
September 30, 1999

Part III

Department of Labor

Mine Safety and Health Administration

30 CFR Parts 46 and 48

Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines; Final Rule PREAMBLE

DEPARTMENT OF LABOR

Mine Safety and Health Administration

30 CFR Parts 46 and 48

RIN 1219–AB17

Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines

AGENCY: Mine Safety and Health Administration (MSHA), Labor.

ACTION: Final rule.

SUMMARY: This final rule amends MSHA's existing health and safety training regulations by establishing new training requirements for shell dredging, sand, gravel, surface stone, surface clay, colloidal phosphate, and surface limestone mines. Congress has prohibited MSHA from expending funds to enforce training requirements at these mines since fiscal year 1980. This final rule implements the training requirements of section 115 of the Federal Mine Safety and Health Act of 1977 and provides for effective miner training at the affected mines. At the same time, the final rule allows mine operators the flexibility to tailor their training programs to the specific needs of their miners and operations.

EFFECTIVE DATE: This regulation is effective October 2, 2000.

FOR FURTHER INFORMATION CONTACT: Carol J. Jones, Acting Director, Office of Standards, Regulations, and Variances, MSHA; 4015 Wilson Boulevard, Room 631, Arlington, VA 22203; Ms. Jones may be reached at cjones@msha.gov (Internet E-mail); 703–235–1910 (voice); or 703–235–5551 (facsimile).

SUPPLEMENTARY INFORMATION:

I. Plain Language

We (MSHA) wrote this final rule in the more personal style advocated by the President's executive order on ''plain language.'' ''Plain language'' encourages the use of—

- personal pronouns (we and you);
- sentences in the active voice;
- a greater use of headings, lists, and questions, as well as charts, figures, and tables.

In this final rule, ''you'' refers to production-operators and independent contractors because they have the primary responsibility for compliance with MSHA regulations. We received several comments on the use of plain language. Commenters generally supported the use of plain language, but suggested that using ''you'' to refer to two entities was somewhat confusing. In response, the Agency uses the terms ''production-operators'' and ''independent contractors'' where the use of the term ''you'' could be confusing.

II. Paperwork Reduction Act of 1995

The information collection requirements contained in this final rule have been submitted to the Office of Management and Budget (OMB) for review under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520), as implemented by OMB in regulations at 5 CFR Part 1320. The Paperwork Reduction Act of 1995 (PRA 95) defines collection of information as ''the obtaining, causing to be obtained, soliciting, or requiring the disclosure to third parties or the public of facts or opinions by or for an agency regardless of form or format'' (44 U.S.C. 3502(3)(A)). Under PRA 95, no person may be required to respond to, or may be subjected to a penalty for failure to comply with, these information collection requirements until they have been approved and MSHA has announced the assigned OMB control number. The OMB control number, when assigned, will be announced by separate notice in the **Federal Register**. In accordance with § 1320.11(h) of the implementing regulations, OMB has 60 days from today's publication date in which to approve, disapprove, or instruct MSHA to make a change to the information collection requirements in this final rule.

Recordkeeping requirements in the final rule are found in §§ 46.3, 46.5, 46.6, 46.7, 46.8, 46.9, and 46.11. MSHA did not receive any comments on the methodology or assumptions used. Comments received on specific provisions of the proposed rule are addressed in the section-by-section discussion of § 46.9 ''Records of Training.'' The final rule provides that records are not required to be maintained at the mine site, and therefore can be electronically filed in a central location, so long as the records are made available upon request to the authorized representative of the Secretary and to miners or their representatives.

Although the final rule does not require backing up the data, some means are necessary to ensure that electronically stored information is not compromised or lost. MSHA encourages mine operators who store records electronically to provide a mechanism that will allow the continued storage and retrieval of records in the year 2000. Table 1 provides, by section, the paperwork requirements for Year 1 and then for every other succeeding year. Table 2 provides, by section, the annual paperwork requirements starting with the first year. Table 3 provides, by section, the paperwork requirements for Year 1 and then for every other succeeding year for miners and their representatives. Table 4 provides, by section, the annual paperwork requirements for miners and their representatives. Mine operators will incur a total of 233,594 burden hours at a cost of about $7.6 million in the first year, and in every other succeeding year (i.e., 3, 5, 7, 9). Mine operators will incur 220,776 burden hours at a cost of $7.1 million in years 2, 4, 6, 8, etc. The first year burden hours and costs are composed by summing the figures in Tables 1, 2, 3, and 4.

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Table 1 Mine Operators' First Year/Recurring Burden Hours and Costs								
	Mines (1-5)		Mines (6-19)		Mines (≥20)		Totals	
Prov.	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs
46.3	7,670	$259,458	3,360	$113,653	1,243	$43,321	12,273	$416,432

Table 2 Mine Operators' Annual Burden Hours and Costs								
	Mines (1-5)		Mines (6-19)		Mines (≥20)		Totals	
Prov.	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs
46.3	255	$8,614	166	$5,620	124	$4,321	545	$18,554
46.5	41,153	$1,481,519	21,604	$777,757	4,963	$178,654	67,720	$2,437,930
46.6	8,534	$307,213	4,641	$167,066	1,092	$39,327	14,267	$513,606
46.7	3,940	$141,828	7,299	$262,776	7,085	$255,049	18,324	$659,653
46.8	34,944	$1,257,994	15,538	$559,369	5,552	$199,882	56,035	$2,017,246
46.9	1,541	$40,829	3,145	$83,345	2,995	$79,357	7,680	$203,531
46.11	25,298	$581,843	22,155	$509,565	8,730	$200,790	56,183	$1,292,198
Total	115,664	$3,819,839	74,549	$2,365,499	30,541	$957,379	220,753	$7,142,717

Table 3 Miners and Miners' Representatives First Year/Recurring Burden Hours and Costs								
	Mines (1-5)		Mines (6-19)		Mines (≥20)		Totals	
Prov.	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs
46.3	358	$8,223	157	$3,601	31	$709	545	$12,534

Table 4 Miners and Miners' Representatives Annual Burden Hours and Costs								
	Mines (1-5)		Mines (6-19)		Mines (≥20)		Totals	
Prov.	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs	Hrs.	Costs
46.3	12	$273	8	$178	3	$71	23	$522

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III. Executive Order 12866 and Regulatory Flexibility Analysis

Executive Order (E.O.) 12866 requires that regulatory agencies assess both the costs and benefits of intended regulations. Based upon the economic analysis, we have determined that this final rule is not an economically significant regulatory action pursuant to section 3(f)(1) of E.O. 12866. MSHA does consider the final rule to be significant under section 3(f)(4) of the E.O. because of widespread interest in the rule, and has submitted the final rule to OMB for review.

The Regulatory Flexibility Act (RFA) requires regulatory agencies to consider a rule's impact on small entities. Under the RFA, MSHA must use the Small Business Administration's (SBA's) definition for a small mine of 500 or fewer employees or, after consultation with the SBA Office of Advocacy, establish an alternative definition for the mining industry by publishing that definition in the **Federal Register** for notice and comment. In this rule, none of the affected mines have 500 or more employees. Therefore for the purposes of the RFA, all of the affected mines are considered small. MSHA has analyzed the impact of the final rule on mines with 20 or more employees, mines with 6–19 employees, and mines with 1–5 employees. MSHA has determined that this rule will not impose a significant cost increase on a substantial number of small mines.

MSHA has prepared a Regulatory Economic Analysis (REA) and Regulatory Flexibility Certification Statement to fulfill the requirements of E.O. 12866 and the Regulatory Flexibility Act. This REA is available from MSHA upon request and is posted on our Internet Home Page at www.msha.gov.

Regulatory Flexibility Certification Statement

Based on MSHA's analysis of costs and benefits, the Agency certifies that this rule will not impose a significant economic impact on a substantial number of small entities.

Factual Basis for Certification

General approach: The Agency's analysis of impacts on ''small entities'' begins with a ''screening'' analysis. The screening compares the estimated compliance costs of the rule for small mine operators in the affected sector to the estimated revenues for that sector. When estimated compliance costs are less than 1 percent of estimated revenues (for the size categories considered) the Agency believes it is generally appropriate to conclude that there is no significant impact on a substantial number of small entities. When estimated compliance costs approach or exceed 1 percent of revenue, it tends to indicate that further analysis may be warranted.

Derivation of costs and revenues: In the case of this rule, because the compliance costs must be absorbed by the nonmetal mines affected by this rule, the Agency decided to focus its attention exclusively on the relationship between costs and revenues for these mines, rather than looking at the entire metal and nonmetal mining sector as a whole.

In deriving compliance costs there were areas where different assumptions had to be made for small mines in different employment sizes in order to account for the fact that the mining operations of small mines are not the same as those of large mines. For example, different assumptions for mine size categories were used to derive compliance costs concerning: the number of persons trained per mine and the number of training sessions a mine would have annually. In determining revenues for the nonmetal mines affected by this rulemaking, MSHA multiplied the production data (in tons) by the price per ton of the commodity.

Results of screening analysis. As shown in Table V–1 from the REA, with respect to the nonmetal mines covered by this rule that have 1 to 5 workers, the estimated annual costs of the rule as a percentage of their annual revenues are 0.32 percent. For nonmetal mines covered by this rule that have between 6 and 19 workers, the estimated annual costs of the rule as a percentage of their annual revenues are 0.14 percent. For nonmetal mines covered by this rule that have 20 or more workers, the estimated annual costs of the rule as a percentage of their annual revenues are 0.04 percent. Finally, for all nonmetal mines covered by this rule (all of which have 500 or fewer workers) the estimated annual costs of the rule as a percentage of their annual revenues are 0.10 percent.

In every case, the estimated compliance costs are substantially less than 1 percent of revenues, well below the level suggesting that the rule might have a significant impact on a substantial number of small entities. Accordingly, MSHA has certified that there is no such impact for small entities that mine the commodities that are affected by this rule.

As required under the law, MSHA has complied with its obligation to consult with the Chief Counsel for Advocacy at the Small Business Administration on this rule, and on the Agency's certification of no significant economic impact on the mines affected by this rule.

TABLE V–1.—EXEMPT NONMETAL MINES COVERED BY THE FINAL RULE [a]

[dollars in thousands]

Employment size	Estimated costs	Estimated revenues [b]	Costs as percentage of revenues
1–5	6,197	1,950,102	0.32
6–19	6,384	4,556,847	0.14
20 or more	3,975	9,756,081	0.04
All Mines [c]	16,556	16,263,030	0.10

[a] All mines covered by the final rule are surface mines.

[b] Data for revenues derived from U.S. Department of the Interior/U.S. Geological Survey. Mining and Quarrying Trends, 1997 Annual Review. 1997. Tables 2 and 3. Revenues for the three U.S. colloidal phosphate mines estimated using average revenues of the other exempt mines in the same size categories covered by the final rule.

[c] Every mine affected by the rule has 500 or fewer employees.

As required under the law, MSHA complied with its obligation to consult with the Chief Counsel for Advocacy on this rule, and on the Agency's certification of no significant economic impact on the mines affected by this rule.

Compliance Costs

MSHA estimates that the total net cost of the final 30 CFR part 46 training requirements will be approximately $17.94 million annually, of which about $16.55 million will be borne by mine operations in the following surface nonmetal mining sectors: shell dredging, sand, gravel, stone, clay, colloidal phosphate, and limestone.[1] Since fiscal year 1980, Congress has prohibited MSHA from enforcing existing MSHA health and safety training regulations in 30 CFR part 48 at mines (''exempt mines'') in these sectors of the surface nonmetal mining industry. The exempt mines that are not currently in compliance with the existing part 48 training requirements will incur costs of approximately $17.43 million annually to comply with the final rule, while those currently in compliance with the existing part 48 training requirements will derive net savings of approximately $0.89 million annually.

Over the past 20 years, MSHA has consistently categorized a mine as being small if it employs fewer than 20 workers and as being large if it employs 20 or more workers. For the purposes of this Regulatory Economic Analysis (REA), however, MSHA has identified three mine size categories based on the number of employees, which are relevant to the estimation of the cost of the final rule: (1) Mines employing 5 or fewer workers; (2) mines employing between 6 and 19 workers; and (3) mines employing 20 or more workers. These mine categories are important because they are believed to have significantly different compliance rates for existing part 48 training requirements. For this final rule, MSHA estimates that the following percentages of exempt mines by size category are currently *not* in compliance with existing part 48 requirements: 60 percent of mines with 5 or fewer employees; 40 percent of mines with between 6 and 19 employees; and 20 percent of mines with 20 or more employees.

In 1997, there were 10,152 exempt mines covered by the final rule. MSHA estimates that the average cost per exempt mine to comply with the final rule will be approximately $1,600 annually. For the 5,297 exempt mines with 5 or fewer employees, MSHA estimates that the average cost of the final rule per mine will be approximately $1,200 annually. For the 3,498 exempt mines with between 6 and 19 employees, MSHA estimates that the average cost of the final rule per mine will be approximately $1,800 annually. For the 1,357 exempt mines with 20 or more employees, MSHA estimates that the average cost of the final rule per mine will be approximately $2,900 annually.

These costs per mine may be slightly misleading insofar as the exempt mines currently in compliance with existing part 48 training requirements will also be, for the most part, in compliance with the final rule and will therefore incur only relatively modest compliance costs. In fact, as previously stated, these mines would derive net savings of approximately $0.89 million annually as a result of the final rule.[2] For the exempt mine operators (including independent contractors that employ miners) not currently in compliance with existing part 48 training requirements, the annual cost of complying with the final rule will, on average, be approximately $1,900 per mine operator with 5 or fewer workers; $4,500 per mine operator with between 6 and 19 workers; and $15,800 per mine operator with 20 or more workers.

Table IV–1 from the REA summarizes MSHA's estimate of the yearly costs of the final rule by mine size and by provision. These costs reflect first year costs of $18,140,889 and second year costs of $17,694,277.

TABLE IV–1.—SUMMARY OF YEARLY COMPLIANCE COSTS FOR THE FINAL RULE*

Requirement provision	Mines with 1–5 employees	Mines with 6–19 employees	Mines with 20+ employees	Total cost for all mines	Total cost for other parties	Total cost
§ 46,3	$158,780	$71,467	$28,827	$259,074	$7,628	$266,702
§ 46.5	2,436,253	1,953,064	774,018	5,163,335	.....	5,163,335
§ 46.6	426,676	313,628	113,382	853,686	.....	853,686
§ 46.7	351,365	828,761	1,183,662	2,363,787	.....	2,363,787
§ 46.8	2,139,686	2,540,586	1,527,819	6,208,091	.....	6,208,091
§ 46.9	45,449	92,781	88,338	226,568	.....	226,568
§ 46.11	581,912	509,544	200,597	1,292,053	1,292,053	2,584,105
§ 46.12	56,860	74,440	57,896	189,196	85,744	274,940
Total	6,196,980	6,384,271	3,974,539	16,555,790	1,385,425	17,941,215

*Source: Table IV–20, Table IV–25, Table IV–27, Table IV–30, Table IV–33, Table IV–35, Table IV–36 and Table IV–37.

Benefits

Safety and health professionals from all sectors of industry recognize that training is a critical element of an effective safety and health program. Training informs miners of safety and health hazards inherent in the workplace and enables them to identify and avoid such hazards. Training becomes even more important in light of certain conditions that can exist when production demands increase, such as: an influx of new and less experienced miners and mine operators; longer work hours to meet production demands; and increased demand for contractors who may be less familiar with the dangers on mine property.

Although there may be some differences in production technology and the production environment between the exempt mining industry and other surface nonexempt mining industries, the data presented in Chapter III of this document indicate that the lack of training in exempt mines contributes significantly to the disproportionate number of fatalities

[1] The remaining $1.39 million in costs associated with the final rule will be borne primarily by non-miners who receive hazard awareness training, or by their empolyers.

[2] The net savings consist of $1.18 million in compliance costs and $2.07 million in savings. The $2.07 million in savings arise from paragraph (e) of § 46.4, which allows all documented employee safety meetings, *regardless of duration*, to be credited toward training requirements. (Under the existing part 48 training requirements, employee safety meetings lasting less than 30 minutes may not be credited toward training requirements.) For details about these savings, see Table IV–32 and the text that precedes it.

that occur at such mines. Chapter III points out that in the period from 1993 to 1997, there were 200 fatalities at surface mines. Of these, 163 occurred at exempt mines. Thus, exempt mines accounted for 82 percent of all fatalities at surface mines during this period. During the same period, however, employees at exempt mines accounted for only 64 percent of the total number of hours worked at surface mines.

One of the major reasons that exempt mines have experienced a higher fatality rate than the surface mining industry as a whole is that smaller operations, those which employ fewer than 20 workers, make up the vast majority of exempt mines. These small operations, as a group, have the highest rates of noncompliance with part 48 training requirements and also the highest fatality rates.

It is plausible to assert that at least some of these fatalities might have been prevented if victims had received appropriate miner safety training. Similarly, MSHA believes that compliance with the requirements of this final training rule will, in turn, reduce the number of fatalities at formerly exempt mines. As discussed in greater detail in Chapter III of this document, MSHA estimates that compliance with the final rule will prevent about 10 fatalities and 557 injuries per year. MSHA believes that this final rule will make training more responsive to the needs of the industry and more effective for individual miners, thereby raising the compliance rate and reducing mine injuries and fatalities.

IV. Unfunded Mandates Reform Act of 1995

We have determined that, for purposes of section 202 of the Unfunded Mandates Reform Act of 1995, this rule does not include any federal mandate that may result in increased expenditures by State, local, or tribal governments in the aggregate of more than $100 million, or increased expenditures by the private sector of more than $100 million. Moreover, the Agency has determined that for purposes of § 203 of that Act, this rule does not significantly or uniquely affect these entities.

Background

The Unfunded Mandates Reform Act was enacted in 1995. While much of the Act is designed to assist the Congress in determining whether its actions will impose costly new mandates on State, local, and tribal governments, the Act also includes requirements to assist federal agencies to make this same determination with respect to regulatory actions.

Analysis

Based on the analysis in the Agency's REA, the yearly compliance costs (annualized costs plus annual costs) resulting from the final rule will be approximately $17.9 million, of which about $16.6 million will be borne by the affected nonmetal operators. Accordingly, there is no need for further analysis under § 202 of the Unfunded Mandates Reform Act.

MSHA has concluded that small governmental entities would not be significantly or uniquely impacted by the regulation. The final rule will affect 10,152 surface nonmetal mining operations. MSHA data indicate that there are 185 nonmetal mines affected by this rule that are state or local government owned.

When MSHA issued the proposed rule, the Agency affirmatively sought input of any state, local, and tribal government which may be affected by the training rulemaking. This included state and local governmental entities who operate sand and gravel mines in the construction and repair of highways and roads. MSHA mailed a copy of the proposed rule to these entities. The Agency received comments from several state agencies and local government entities. No tribal government entity commented on the proposed rule. A speaker at the Pittsburgh public hearing on the proposed rule asserted that (in New York State, at least) there were many mines operated by local governments not counted or inspected by MSHA and not in compliance with existing part 48 training requirements. Even if this assertion were true, MSHA's analysis of regulatory impacts indicates that the cost of the final rule will range from only $1,900 per mine to $15,800 per mine not currently in compliance with existing part 48 training requirements. MSHA believes that these costs do not significantly or uniquely impact these small government entities. MSHA will mail a copy of the final rule to approximately 185 such entities.

We have determined that, for purposes of § 202 of the Unfunded Mandates Reform Act of 1995, this rule does not include any federal mandate that may result in increased expenditures by State, local, or tribal governments in the aggregate of more than $100 million, or increased expenditures by the private sector of more than $100 million. Moreover, the Agency has determined that for purposes of § 203 of that Act, this rule does not significantly or uniquely affect these entities.

V. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

In accordance with E.O. 13045, MSHA has evaluated the environmental health and safety effects of the final rule on children. MSHA has determined that the final rule will have no effect on children.

VI. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

MSHA certifies that the final rule will not impose substantial direct compliance costs on Indian tribal governments.

VII. Executive Order 12612: Federalism

Executive Order 12612, regarding federalism, requires that agencies, to the extent possible, refrain from limiting state policy options, consult with states prior to taking any actions which would restrict state policy options, and take such actions only when there is clear constitutional authority and the presence of a problem of national scope. Because this final rule does not limit state policy options, it complies with the principles of federalism and with Executive Order 12612.

VIII. Executive Order 12630: Government Actions and Interference With Constitutionally Protected Property Rights

This final rule is not subject to Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights, because it does not involve implementation of a policy with takings implications.

IX. Executive Order 12875: Enhancing the Intergovernmental Partnership

Executive Order (E.O.) 12875 requires executive agencies and departments to reduce unfunded mandates on State, local, and tribal governments; to consult with these governments prior to promulgation of any unfunded mandate; and to develop a process that permits meaningful and timely input by State, local, and tribal governments in the development of regulatory proposals containing a significant unfunded mandate. E.O. 12875 also requires executive agencies and departments to increase flexibility for State, local, and tribal governments to obtain a waiver from Federal statutory or regulatory requirements.

MSHA estimates that there are 185 sand and gravel, surface limestone, and stone operations that are run by State, local, or tribal governments for the construction and repair of highways and

roads. When MSHA issued the proposed rule, the Agency affirmatively sought input of any state, local, and tribal government which may be affected by the training rulemaking. This included state and local governmental entities who operate sand and gravel mines in the construction and repair of highways and roads. MSHA mailed a copy of the proposed rule to these entities. The Agency received comments from several state agencies and local government entities. No tribal government entity commented on the proposed rule.

X. Executive Order 12988: Civil Justice Reform

The Agency has reviewed Executive Order 12988, Civil Justice Reform, and determined that this rulemaking will not unduly burden the Federal court system. The regulation has been written so as to provide a clear legal standard for affected conduct, and has been reviewed carefully to eliminate drafting errors and ambiguities.

XI. Statutory and Rulemaking Background

Section 115 of the Federal Mine Safety and Health Act of 1977 (Mine Act), 30 U.S.C. 801 *et seq.*, directed the Secretary of Labor to promulgate regulations requiring that mine operators subject to the Mine Act establish health and safety training programs for their miners. MSHA issued final miner training regulations in 30 CFR part 48 on October 13, 1978 (43 FR 47453). At that time, some industry representatives expressed concern over the appropriateness of applying the requirements of part 48 to smaller, less technical surface nonmetal mining operations. They also maintained that many small nonmetal operators would have difficulties in complying with part 48.

In 1979, various segments of the metal and nonmetal mining industry raised these concerns with Congress and requested relief from the comprehensive specifications of part 48. In response, Congress inserted language in the Department of Labor's appropriations bill that prohibited the expenditure of appropriated funds to enforce miner health and safety training requirements at approximately 10,200 surface nonmetal work sites. Congress has inserted this language into each Department of Labor appropriations bill since fiscal year 1980. This language specifically prohibits the use of appropriated funds to:

> * * * carry out § 115 of the Federal Mine Safety and Health Act of 1977 or to carry out that portion of § 104(g)(1) of such Act relating to the enforcement of any training requirements, with respect to shell dredging, or with respect to any sand, gravel, surface stone, surface clay, colloidal phosphate, or surface limestone mine.

This language remains in place under MSHA's appropriations contained in the Omnibus Appropriations Act for 1999, Pub. L. 105–277, signed by the President on October 21, 1998. The congressional appropriations rider for fiscal year 1999, however, authorized us to expend funds to propose and promulgate final training regulations by September 30, 1999, for operations affected by the prohibition (''exempt mines''). The 1999 rider also directed us to work with the affected industry representatives, mine operators, workers, labor organizations, and other interested parties to promulgate the training regulations and to base the regulations on a draft submitted to MSHA no later than February 1, 1999, by the Coalition for Effective Miner Training (Coalition).

The Coalition is comprised of producers, associations that represent producers, and three labor organizations. Coalition members are:

American Portland Cement Alliance
Arizona Rock Products Association
Construction Materials Association of California
China Clay Producers Association
Dry Branch Kaolin Company
Georgia Crushed Stone Association
Georgia Mining Association
Indiana Mineral Aggregates Association
International Brotherhood of Teamsters
International Brotherhood of Boilermakers, Iron Shipbuilders, Blacksmiths, Forgers, and Helpers
Laborers-AGC Education and Training Fund
National Aggregates Association
National Industrial Sand Association
National Lime Association
National Stone Association
North Carolina Aggregates Association
Sorptive Minerals Institute
United Metro Materials, Inc.
Virginia Aggregates Association

On November 3, 1998, we published a **Federal Register** notice (63 FR 59258) announcing seven preproposal public meetings. These meetings were held in California, Colorado, Georgia, Illinois, New York, Oregon, and Texas in December 1998 and January 1999 to receive comments from the public on development of the training rule for miners at exempt mines. We selected the meeting locations to provide as many miners, miners' representatives, and mine operators, both large and small, with the opportunity to attend at least one of the meetings and present their views. More than 220 individuals, including representatives from the Coalition, labor, contractors, mining associations, State agencies, small and large operators, and trainers, attended the meetings. Many attendees made oral presentations of their views on effective miner health and safety training. We also received a number of written comments on pertinent training issues.

The Coalition presented us with a final joint industry/labor draft proposed rule on February 1, 1999, the congressionally established deadline. We considered this draft, along with written comments and oral testimony received during the preproposal period, in developing a proposed rule, which we published in the **Federal Register** on April 14, 1999 (64 FR 18498). The notice of proposed rulemaking also included language that would amend existing part 48 to specify that mines covered under part 46 are not subject to part 48 training requirements.

The notice of public hearings on the proposed rule appeared in the **Federal Register** on the same day as the proposal (64 FR 18528). In May 1999, we held four public hearings in Florida, California, Pennsylvania, and Washington, D.C., to receive public comment on the proposal. The rulemaking record closed on June 16, 1999. The agency received many comments concerning training and retraining of miners. We held 7 informational meetings around the country to seek input from the mining community. In response, we received a total of 30 written and electronic comments. In addition, 67 speakers provided oral comments. After publication of the proposed rule, we received 136 written and electronic comments, and 15 speakers provided oral comments. We received comments from various entities including mine operators, organized labor groups, such as United Steelworkers of America, United Mine Workers of America, International Union of Operating Engineers, State agencies and local municipalities, colleges and universities, and the Coalition.

XII. General Discussion

Crushed stone and sand and gravel account for the majority of operations where we have been prohibited from enforcing training requirements. The United States Geological Survey, United States Department of the Interior (USGS), derives domestic production data for crushed stone and sand and gravel from voluntary surveys of U.S. producers. USGS makes these data available in quarterly Mineral Industry Surveys and in annual Mineral Commodities Summaries. Annual crushed stone tonnage ranks first in the nonfuel minerals industry, with annual sand and gravel tonnage ranking second. USGS data show that domestic

production of sand and gravel and crushed stone increased every year between 1991 and 1999, an indication of the continuing strong demand for construction aggregates in the United States. The most recent USGS data show that sand and gravel production increased approximately 14 percent and crushed stone production increased approximately 7 percent in the first three months of 1999, as compared to the first three months of 1998.

The number of hours worked at sand and gravel and crushed stone operations has been increasing steadily since 1991. In 1991, the hours worked at crushed stone operations totaled approximately 104 million employee-hours, rising to 121 million employee-hours in 1998. Similarly, the number of employee-hours at sand and gravel operations rose from approximately 65 million in 1991 to 75 million in 1998. Based on hours reported for the first three months of 1999, the total hours worked for 1999 will exceed the total hours worked in 1998. Although some of the increase in hours worked may be attributable to longer workdays, the data show that the aggregates industry workforce is growing.

Crushed stone and sand and gravel are essential and used widely in all major construction activities, including highway, road, and bridge construction and repair projects, as well as residential and nonresidential construction. Although crushed stone is used mostly by the construction industry, it is also used as a basic raw material in agricultural and chemical and metallurgical processes. The construction industry is by far the largest consumer of sand and gravel. Consequently, the level of construction activity largely determines the demand for, and resulting production levels of, these aggregate materials.

In 1998, President Clinton signed the Transportation Equity Act for the 21st Century, commonly known as ''TEA–21'' (Pub. L. 105–178), which authorizes highway, highway safety, transit, and other surface transportation programs for the fiscal years 1998 to 2003. The demand for materials produced by the surface nonmetal mining industry is anticipated to increase substantially due to, in significant part, transportation infrastructure construction resulting from the enactment of TEA–21. As the largest public works legislation in the nation's history, appropriating almost $218 billion for highway and transit programs, TEA–21 provides a 40 percent funding increase over the levels for such programs established by the Intermodal Surface Transportation Efficiency Act of 1991, which was the last major authorizing legislation for surface transportation.

In addition to the passage of TEA–21, other factors may also contribute to the continued growth in construction activity and, thus, the demand for aggregate materials. These include a healthy U.S. economy in general, low interest rates, and adverse weather conditions that have damaged and destroyed homes, roads, and bridges in various parts of the country.

Since fiscal year 1980, the year in which the congressional appropriations rider took effect, more than 650 miners have been killed in occupationally related incidents at mines where we cannot enforce miner training requirements. The rider affects approximately 10,200 surface nonmetal mines and 120,000 miners. Approximately 9,200 of these sites are surface aggregate operations (sand and gravel and crushed stone); the remainder are surface operations that mine other commodities such as clay or colloidal phosphate.

Our data indicate that, of the 243 miners involved in fatal accidents at surface metal and nonmetal mines from 1993 to 1998, about 80 percent (199 miners) worked at exempt mines. During this same period, exempt mines accounted for only 64 percent of the number of hours worked at surface mines. From 1993 to 1997, the annual number of fatal accidents at exempt mines almost doubled (from 24 fatalities in 1993 to 45 fatalities in 1997). In each of the years 1996 and 1997, 90 percent of fatalities at surface metal and nonmetal mines occurred at operations affected by the appropriations rider.

A large proportion of exempt mines are smaller operations, which experience a higher fatality rate than larger operations. For example, of the 9,200 surface aggregate mines, approximately 4,900 employ five or fewer miners, and approximately 8,100 employ fewer than 20 miners. Long-term data show that mines with fewer than six employees are three times as likely to experience fatalities as mines with 20 or more workers. Also, mines with between six and 19 employees are more than two times as likely to have fatal accidents as operations with larger workforces.

Several other factors may contribute to the number of fatal accidents, including—

(1) An influx of new and less experienced miners and mine operators;

(2) Longer work hours to meet production demands; and

(3) Increased demand for independent contractors, who may be less familiar with the hazards on mine property.

All of these factors are also more likely to exist when production activity accelerates to meet increases in demand.

We believe that some of these fatalities may have been prevented if victims had received appropriate, basic miner safety training. Our fatal accident investigations show that the majority of miners involved in fatal accidents at mines affected by the rider had not received health and safety training that complied with the requirements of part 48. In 1997, 80 percent of fatal accident victims at exempt mines had not received health and safety training in accordance with part 48. In 1998, this increased to 86 percent.

Safety and health professionals from all sectors of industry recognize that training is a critical element of an effective health and safety program. Training of new employees, refresher training for experienced miners, and training for new tasks serve to inform workers of health and safety hazards inherent in the workplace and, just as important, to enable workers to identify and avoid those hazards. Congress clearly recognized these principles by specifically including training provisions in the Mine Act.

XIII. Discussion of the Final Rule

A. Statutory Requirements

Section 115(a) of the Mine Act authorizes the Secretary of Labor to promulgate miner health and safety training regulations. Section 115(a), (b), and (c) set forth minimum requirements for miner training programs. These requirements include:

- Each operator must have a health and safety program approved by the Secretary of Labor;
- Each approved training program for new surface miners must provide for at least 24 hours of training in specified courses, including:

The statutory rights of miners and their representatives under the Act;

Use of self-rescue and respiratory devices, where appropriate;

Hazard recognition;

Emergency procedures;

Electrical hazards;

First aid;

Walkaround training; and

The health and safety aspects of the task to which the miner will be assigned;

- Each approved training program must provide for at least eight hours of refresher training every 12 months for all miners;
- Miners reassigned to new tasks must receive task training prior to performing that task;
- New miner training and new task training must include a period of

training as closely related as is practicable to the miner's work assignment;

- Training must be provided during normal working hours;
- During training, miners must be paid at their normal rate of compensation and reimbursed for any additional cost for attending training;
- Upon completion of each training program, each operator must certify, on a form approved by the Secretary, that the miner has received the specified training in each subject area of the approved health and safety training plan;
- A certificate for each miner must be maintained by the operator and available for inspection at the mine site;
- A copy of the certificate must be given to each miner at the completion of the training;
- When a miner leaves the operator's employ, the miner is entitled to a copy of his or her health and safety training certificates;
- False certification by an operator that training was given is punishable under section 110(a) and (f) of the 1977 Mine Act; and
- Each health and safety training certificate must indicate on its face, in bold letters, printed in a conspicuous manner, that such false certification is so punishable.

The final training rule takes a performance-oriented approach, where possible, to afford currently exempt operations, particularly small operations, the flexibility to tailor miner training to their particular needs and methods of operation.

B. Summary of the Final Rule

The final rule requires you to develop and implement a written training plan that includes programs for training new and newly hired experienced miners, training miners for new tasks, annual refresher training, and site-specific hazard awareness training. Plans that include the minimum information specified in the final rule are considered approved by us and are not required to be submitted to us for formal review, unless you, the miners, or miners' representative requests it.

The final rule requires new miners to receive 24 hours of new miner training, with a minimum of four hours of training in specific areas before they begin work; instruction in additional subjects no later than 60 days after beginning employment; and the balance of new miner training no later than 90 days after beginning employment.

Under the final rule, newly hired experienced miners must receive instruction in the same subjects required for new miners before they begin work, and in one additional subject no later than 60 days after beginning work.

Every 12 months, all miners must receive no less than eight hours of refresher training that addresses relevant occupational health and safety subjects. The refresher training must include instruction on changes at the mine that could adversely affect the miners' health or safety. You have the flexibility to determine other health and safety subjects addressed in refresher training, although the final rule identifies a number of recommended subjects.

The final rule requires training for every miner before the miner is reassigned to a task for which he or she has no previous experience. Training must also be given when a miner's task has changed. The training must cover the health and safety aspects and safe work procedures specific to the task. Site-specific hazard awareness training is required for persons who do not fall within the definition of ''miner'' and who are therefore not required to receive comprehensive training (i.e., new miner training or newly hired experienced miner training, as appropriate). The final rule also requires site-specific hazard awareness training for miners employed by production-operators and independent contractors who move from mine to mine as a regular part of their employment. These miners are required to receive comprehensive training but also need orientation in the hazards at the mines where they will be working.

You are required to certify that a miner has received required training and retain a copy of each miner's training records and certificates for the duration of the miner's employment, except that you must keep certificates of annual refresher training for at least two years. You must keep training records and certificates for miners who have terminated their employment with you for at least 60 days after the employment ends. You may use our existing form for the certification (MSHA Form 5000–23) or maintain the certificate in another format, so long as it contains the minimum information required in the final rule. You are also required to maintain a copy of the current training plan at the mine or have the capability to produce it upon request within one business day. You may keep training records and certificates at the mine site or at a different location, but must provide copies of the records to us and to miners and their representatives upon request.

We do not approve training instructors under the final rule. Instead, training must be provided by a competent person—someone with sufficient ability, training, knowledge, or experience in a specific area, who is also able to communicate the subject of the training and evaluate the effectiveness of the training provided.

The final rule adopts the Mine Act requirement that miners be trained during normal work hours and compensated at normal rates of pay. Miners must also be reimbursed for incidental costs, such as mileage, meals, and lodging, if training is given at a location other than the normal place of work.

The final rule also allows you, where appropriate, to substitute equivalent training required by OSHA or other federal or state agencies to satisfy your training obligations under part 46.

The final rule addresses responsibility for training and gives primary responsibility to the production-operator for ensuring that site-specific hazard awareness training is given to employees of independent contractors who are required to receive such training. Additionally, independent contractors who employ miners required to receive comprehensive training under the final rule are primarily responsible for ensuring that their employees are given training that satisfies these requirements.

C. Effective Date

Although the proposed rule did not specify an effective date, we solicited comment in the preamble to the proposal on how much time should be allowed for the mining community to come into compliance with the final rule. In the preamble, we stated that we recognized that a very large number of operations would attempt to come into compliance at the same time, and we wanted to allow a reasonable period of time after the final rule's publication for a smooth transition. We also indicated that speakers at the seven preproposal public meetings had recommended compliance periods ranging from six months to a year after the final rule is published. We questioned whether phased-in compliance deadlines, where certain part 46 requirements would go into effect at different stages, would facilitate compliance.

We received many comments on this issue. Only a few commenters favored phased-in compliance deadlines. One commenter suggested that the final rule designate a six-month preparation period during which operators could develop their training plans, establish recordkeeping systems, experiment with

training methods, and enroll trainers in instruction courses. This commenter believed that, after the six-month period, the rule should take effect and be enforceable, except that no citations would be issued for violations under this part during the first regular MSHA inspection. Other commenters believed that phased-in compliance deadlines would only serve as a source of confusion or impose unnecessary administrative burdens. These commenters strongly recommended against adoption of phased-in deadlines in the final rule.

Several commenters favored a six-month effective date, stating it would provide adequate time for compliance if MSHA and state agencies were available to assist operators in such areas as the development of training plans and training materials. One commenter indicated that many operators in his state were already in compliance with existing part 48 and that these operators would need to take little action to comply with part 46. One commenter believed that operators should be required to comply with the final rule no later than 90 days after it is published in the **Federal Register**, while another suggested a 24-month compliance deadline. However, the vast majority of commenters favored a one-year period before the final rule would take effect and become enforceable. One commenter who supported a one-year compliance period stated that many small operators will require assistance in preparing plans and in locating appropriate trainers and training materials. Other commenters advocated a one-year compliance period because they believed it would ensure that the mining community would be able to implement the final rule in a rational manner. Another commenter who advocated a one-year deadline stated that we needed to allow sufficient time for development of training materials appropriate for the mines affected by the final rule. This commenter also believed that significant time was needed to ensure that operators, many of whom are not currently providing training, were familiar with the new requirements in the final rule.

We have concluded that a one-year effective date, without interim compliance deadlines, will ensure that production-operators, independent contractors, and others affected by the final part 46 rule will have sufficient time to become familiar with the rule's requirements and take steps to come into compliance. Many operators, particularly larger mine operators, are currently in compliance with the majority of part 48 requirements and would need little time to ensure that their training programs are consistent with the provisions of the final rule. However, we are concerned that many small operations affected by this rule have limited or no training programs currently in place. These small operators typically also have limited resources from which to develop and implement new training programs. We recognize that we have an essential role to play in compliance assistance and outreach effort in the coming year, particularly to small operators. This is discussed in greater detail below under the heading ''Implementation of the Final Rule.''

The final rule takes effect one year after the rule's publication in the **Federal Register**, giving the mining community an adequate period of time in which to come into compliance with the rule's requirements. You must comply with § 46.3(a) and § 46.8(a) as prescribed in the following table:

COMPLIANCE DATES FOR PRODUCTION-OPERATORS/INDEPENDENT CONTRACTORS

Training plans	Compliance date
You must develop and implement a written plan, approved by us under either § 46.3(b) or (c), that contains effective programs for training new miners and newly hired experienced miners, training miners for new tasks, annual refresher training, and site-specific hazard awareness training..	October 2, 2000.
Annual refresher training	**Compliance dates**
You must provide each miner with no less than 8 hours of annual refresher training—.	(1) No later than 12 months after the miner begins work at the mine, or no later than March 30, 2001, whichever is later; and (2) Thereafter, no later than 12 months after the previous annual refresher training was completed.

D. Implementation of the Final Rule

Many commenters observed that effective compliance assistance is critical to the successful implementation of the final rule, and that small operations in particular are in need of assistance from state and federal agencies to be able to fulfill their training responsibilities. A number of commenters addressed the type of assistance that we should provide to facilitate compliance with the final rule.

We appreciate the commenters suggestions about the types of resources that would provide the greatest benefit to the mining community in complying with the final rule. We acknowledge that compliance assistance for the mining community will be a key element in the successful implementation of the final rule. We intend to provide extensive compliance assistance to you as our resources permit, not only through our staff in Metal and Nonmetal Mine Safety and Health, but also through our newly formed Educational Field Services Division in the Directorate of Educational Policy and Development. We also expect recipients of federal funds through our State Grants program to play a significant role in assisting you to develop effective training plans and, at the same time, to satisfy the requirements of the final rule.

We solicited comments in the preamble to the proposal on whether we should include examples of model training plans, appropriate for different types and sizes of mining operations, in a nonmandatory appendix to the final rule. One of the few commenters who addressed this issue supported including examples of training plans in a nonmandatory appendix. Another commenter recommended that we should encourage mine operators to contact agencies that are designed to provide compliance assistance services, such as our Educational Field Services Division and state grantees, instead of providing them as part of the final rule. This commenter believed that operators would receive more effective compliance assistance in plan development by reaching out to appropriate agencies for guidance. This commenter was concerned that including sample plans as an appendix to the regulation would make it less likely that operators would contact these agencies for assistance. We agree with this commenter, and we are also concerned that placing sample plans in a regulatory appendix could restrict our flexibility in making future refinements and improvements to the sample plans. We have concluded that it is more appropriate to provide mine operators with sample plans as part of an overall compliance assistance and outreach effort that we will initiate for the mining community after publication of the final

rule. We anticipate that other organizations, including state grantees and large operators, also may develop sample training plans and make them available to small operators to assist in training plan development.

A number of commenters who addressed implementation of the final rule advocated increased funding for our State Grants program. Under this program, authorized by section 503(a) of the Mine Act, we distribute federal funds to 43 states and the Navajo Nation to supplement their mining health and safety programs. Grants are made to the state agency responsible for miners' health and safety to support health and safety programs, and most of these funds are used to support health and safety training courses. State grantees play an essential role in workplace health and safety by providing effective training to thousands of miners across the country. MSHA's current budget includes $5 million for the States Grants program. Our budget request for fiscal year 2000 would increase that sum to $6.1 million, an increase of 22%.

E. Section-by-Section Discussion

This portion of the preamble discusses each final provision section-by-section. The text of the final rule is included at the end of the document.

Section 46.1 Scope

This section adopts with minor changes proposed § 46.1 and states that the provisions of part 46 set forth mandatory requirements for the training and retraining of miners and other persons at all shell dredging, sand, gravel, surface stone, surface clay, colloidal phosphate, and surface limestone mines. Additionally, § 48.21, the existing scope section in part 48, is amended by this final rule to specifically exclude mines that now are covered by the training requirements of part 46. Part 46 requirements supersede the requirements of part 48 at those mines that have been subject to the congressional appropriations rider since fiscal year 1980.

The final rule states that the provisions of part 46 contain the mandatory requirements for training and retraining of ''miners and other persons'' at the mines covered by the final rule. Proposed § 46.1 would have provided that the training requirements of part 46 were for ''miners working'' at the covered mines. This adjustment in the final rule language recognizes that the final rule's requirements for site-specific hazard awareness training also apply to persons who are not miners and who may not in fact work at the mine, such as visitors or delivery personnel.

We have promulgated these regulations under a separate part of Title 30 of the Code of Federal Regulations to minimize confusion about which training requirements apply at what mines. We were concerned that if we promulgated these regulations as a subpart to existing part 48, it would make it more difficult for the mining community to distinguish between the two sets of requirements. The few commenters who addressed this issue generally favored the placement of these regulations under a new part.

As explained in the preamble to the proposed rule, the mining community should recognize that the list of the types of mines where part 46 will now apply, set forth in this section of the final rule, mirrors the language of the congressional budget rider and describes the affected operations in broad terms. The list of mines in this section does not detail every type of operation that falls within the scope of these requirements. For example, part 46 training requirements supersede part 48 requirements at operations that produce marble, granite, sandstone, slate, shale, traprock, kaolin, cement, feldspar, and lime, although these operations are not specifically included in the list of mines in this section.

As stated in the proposed preamble, part 48 remains in effect at all underground metal and nonmetal mines, all surface metal mines, and a few surface nonmetal mines, such as surface boron and talc mines. Operators at those mines continue to be responsible for complying with the provisions of part 48.

The final rule takes a flexible and performance-oriented approach to miner health and safety training requirements. This recognizes that the mines that were subject to the congressional budget rider and that are now governed by part 46 are different in size and type from many of the mines under part 48. When the rider was first included as a restriction to our budget appropriations for fiscal year 1980, some mining industry representatives contended that the part 48 regulations were inappropriate for the smaller and less complex operations that are covered by this final rule. There was concern in the industry that the part 48 requirements would be extremely burdensome and costly to implement, forcing many small operations to curtail production during training periods or go out of business altogether. Industry representatives also contended that the part 48 regulations were neither tailored to fit the needs of the various types of mining operations nor flexible enough to be adaptable to those needs. Additionally, the legislative history of the Mine Act reflects Congress' concern that ''miner training may strain the financial resources of many small operators.'' Conference Report No. 95–461, 95th Cong., 1st Sess., 63 (1977).

In recognition of these concerns, we have developed this rule with small businesses in mind. Almost 9,000 of the approximately 10,000 mines affected by the rule have fewer than 20 employees. All of the operations fall well within the Small Business Administration's definition of small business, which for the mining industry is a mine with 500 or fewer employees. Many of these smaller operations typically do not have a formal health and safety program in place.

A few commenters raised the issue of whether the performance-oriented requirements of the final rule provide less protection to miners than the existing training requirements in part 48, contrary to the mandate of the Mine Act. However, most commenters from industry and labor supported the proposed rule. In addition, the National Institute for Occupational Safety and Health (NIOSH) supported the proposed rule, stating the following:

> The National Institute for Occupational Safety and Health (NIOSH) supports MSHA in its effort to establish new training requirements for shell dredging, sand, gravel, surface stone, surface clay, colloidal phosphate, and surface limestone mines. We believe that the proposed Part 46 regulations should provide numerous opportunities for effective training. We also support the performance-oriented approach taken by MSHA to make training responsive to the needs of small operators by tailoring miner training to their operations, thus making the training more meaningful and, as a result, reducing the number of injuries and fatalities.

Section 101(a)(9) of the Mine Act provides that ''[n]o mandatory health or safety standard promulgated under this title shall reduce the protection afforded miners by an existing mandatory health or safety standard.'' We interpret section 101(a)(9), consistent with the interpretation adopted by the U.S. Court of Appeals for the D.C. Circuit, to require that all of the health or safety benefits resulting from a new standard must be at least equivalent, taken together, to all of the health or safety benefits resulting from the existing standard. We have concluded that, especially in a time of rapid technological advancement and constantly changing mining methods, a more restrictive interpretation would frustrate Congress' intent to ''provide

more effective means and measures for improving the working conditions and practices in the Nation's coal or other mines in order to prevent death and serious physical harm * * *.'' Section 2(c) of the Mine Act, 30 U.S.C. section 801(c).

The requirements of this final rule amend the training requirements in part 48 for more than 10,000 surface nonmetal mines, requirements that we have been prohibited from enforcing at these mines for almost 20 years. We carefully considered the requirements of the final rule in light of the statutory requirement that no new standard shall reduce the protection afforded miners by our existing mandatory health and safety standards. Although the final rule will allow you greater flexibility in training development and implementation, MSHA has determined that the new requirements will not reduce the protection afforded to surface nonmetal miners under existing part 48. While the means used under part 46 may be more flexible and performance-oriented than part 48, the ultimate result—the effective safety and health training of surface nonmetal miners—will be attained under the new standard.

The final rule is intended to provide production-operators and independent contractors with the necessary flexibility to devise training programs that best suit their operations and employees. This also recognizes that a large number of the mines affected by the final rule are very small operations, many of which are sand and gravel operations with limited equipment and facilities. These mines frequently are small in size, employ few workers, use less complex equipment, and consist of relatively uncomplicated mining operations. The type of training appropriate for miners at such mines will differ from miner training at a large mine or processing facility with highly specialized and sophisticated equipment and hundreds of employees. The final rule allows operators, with the assistance of miners and their representatives, the latitude to tailor miner training programs to the specific needs of their operations and workforces.

We also wish to emphasize the enhanced safety and health benefits that result from the reduction in administrative burdens on operators under the final rule, which will allow them to concentrate on ensuring that effective training is being given at their specific operations. For example, the final rule does not require the traditional submission and review of training plans to gain our approval. Instead, operators may choose to develop training plans that are considered approved by us if they meet certain minimum requirements in the final rule. This approach will allow us to focus our resources on verification of plan execution and assistance to you in providing effective training at your mines, rather than on a paper review and approval of more than 10,000 training plans at our offices. Likewise, you and training providers would be able to focus on the development of training plans that address the safety and health concerns at your specific operations, rather than on traditional procedures to gain our approval.

The flexibility included within several sections of the final rule, offering the option of presenting training in short durations and in various formats, will allow miners to more easily retain information and receive effective training in close proximity to their work and associated hazards. Under existing part 48 requirements for annual refresher training, training sessions must last a minimum of 30 minutes. Under the part 46 final rule, training sessions may be of any duration and can be conducted at the work site near potential safety and health hazards. This approach would allow miners to receive training at a time and location close to where the training is needed.

Additional safety and health benefits will also result from the specific requirement in part 46 that provides that training must be presented in language understood by the miners who are receiving the training. The final rule also includes specific provisions which require production-operators to provide information about site-specific hazards to independent contractors who perform work at their mine. Similarly, the final rule provides that independent contractors must inform production-operators of any hazards they might present at the work site. In addition, unlike existing part 48, the requirements of this final rule would apply to construction workers who perform work at mine sites and are faced with similar hazards presented to other miners.

The final rule also includes a requirement for task training when a miner is reassigned to a task in which he or she has no previous work experience, or when a change occurs to the safety and health risks encountered by the miner while performing his or her tasks. Part 48 only applies to changes in ''regularly assigned tasks,'' and therefore would not provide for task training for the one-time assignment of tasks, such as emergency repairs. Accident and injury data show that miners under the scope of the final rule are routinely injured while performing such emergency repair tasks, even though it may be a one-time task. In addition, the part 46 final rule provides that a miner must be able to demonstrate that he or she can perform a new task in a safe and healthful manner, even if the miner has had previous experience or training in the task. Under part 48, a miner is allowed to perform the new task if he or she has experience or received training within the previous 12 months. Specific knowledge and skills can be lost or diminished significantly if they are not used. For these reasons, the final rule requires miners to demonstrate that they have retained the needed knowledge and skills to perform the task safely.

In developing the final rule, we have also attempted to develop practical requirements for effective safety and health training programs at mines covered by the rule. For example, the final rule does not require instructors to receive formal approval by MSHA, but instead provides that ''competent persons'' designated by the production-operator or independent contractor may instruct miners in subjects in the areas of the competent persons' expertise.

Additionally, the final rule recognizes the difficulty that some small operators may have in providing all 24 hours of new miner training before a miner starts work. Many operators indicated that it is not practical for all of this training to be provided before the miner is assigned job duties. In addition, commenters stated that training can be more effective if it is given over a two-or three-month period.

The final rule requires that a new miner receive a minimum of four hours of training in specific subjects before the miner begins work. The amount of time needed for this training will depend on the size and complexity of the mine where the training is given. In some cases this training may require eight hours or more to adequately introduce new employees to the work environment and mine site hazards, such as at a larger mine with complex operations. In other cases, no more than the required minimum of four hours of pre-work training may be needed to cover the necessary subjects at a very small mine with only a couple of employees and a few pieces of equipment.

The requirements of the final rule are sufficiently consistent with existing requirements in part 48, so that those of you who currently comply with part 48 will have to make little adjustment in your existing training programs to comply with the part 46 rule. As mentioned above, part 46 includes

several different requirements from part 48 which will result in the enhanced safety and health of workers at the mines covered by the final rule. These differences include such things as the application of training requirements to construction workers, the retention of certain training records for longer durations, and the requirement that training must be presented in language understood by the miners who are receiving the training. Certain provisions may require you to make adjustments to your existing training programs, for example:

Part 48	Part 46
DEFINITION	
48.22(a)(1)(i) This definition of miners does not include construction workers..	46.2 The definition of miner includes any construction worker who is exposed to hazards of mining operations.
RECORDS OF TRAINING	
(a) Upon a miner's completion of each MSHA approved training program, the operator must record and certify on MSHA Form 5000–23 that the miner has received the specified training.	(a) You must record and certify on MSHA Form 5000–23, or on a form that contains the information listed in § 46.9(b), that each miner has received training required under this part.
N/A	(b)(5) The record must include a statement signed by the person designated in the MSHA-approved training plan for the mine as responsible for health and safety training, that states ''I certify that the above training has been completed.''
(c) Copies of training certificates for currently employed miners must be kept at the mine site for 2 years, or for 60 days after termination of employment.	(h) You must maintain copies of training certificates and training records for each currently employed miner during his or her employment, except records and certificates of annual refresher training under § 46.8, which you must maintain for only two years. You must maintain copies of training certificates and training records for at least 60 calendar days after a miner terminates employment.

In the preamble to the proposed rule, we solicited comment on whether the final rule should specifically allow you the option of complying with the requirements of part 48 in lieu of part 46. Only a few commenters addressed this issue. One commenter stated that giving mine operators the option of complying with part 48 would adversely affect implementation of the rule. This commenter indicated that allowing such an option would make our enforcement of training requirements more difficult. Another commenter supported this option, stating that many of the operators who are covered by the final rule currently comply with part 48 and should be allowed to continue to do so.

The final rule does not allow operators the option of complying with part 48 in lieu of the requirements of part 46. We have concluded that providing such an option would provide less effective training and protection for the miners working at your mines. Part 46 requires training for construction workers and it takes a proactive approach toward the training of independent contractor employees that come onto mine property. We believe that these provisions, along with other enhancements included in part 46, will result in improved safety and health for the construction workers, independent contractor workers, and miners who work near these individuals at the mine. For these reasons, we have not adopted this compliance option in the final rule. However, the final rule does allow production-operators and independent contractors to substitute relevant training given under part 48 for training required under part 46.

Section 46.2 Definitions

This section of the final rule includes definitions of certain terms used in part 46. We are providing these definitions to assist the mining community in understanding the requirements of the rule.

We have adopted most of the definitions included in the proposal into the final rule. In some cases, we have made changes to the definitions to respond to concerns of commenters. We explain these changes in the preamble discussion for each term.

Act. Section 46.2(a) states that all references to the ''Act'' in the final rule mean the Federal Mine Safety and Health Act of 1977, 30 U.S.C. 801 *et seq.*

Competent person. Under the final rule, a ''competent person'' must conduct the training required under this part, and final § 46.2(b) adopts the proposed definition of this term, with some changes. The final rule defines ''competent person'' as a person designated by the production-operator or independent contractor who has the ability, training, knowledge, or experience to provide training to miners in his or her area of expertise. The competent person must be able both to communicate the training subject effectively to miners and to evaluate whether the training given to miners is effective.

The final definition of ''competent person'' is similar to the definition included in the proposed rule, but we have made several changes in the final definition in response to commenters. Instead of providing that the ''operator'' designate the competent person, as in the proposal, the final rule provides that the ''production-operator or independent contractor'' designate the competent person. Although the proposal would have defined the term ''operator'' to include both production-operators and independent contractors, we have concluded, based on comments, that the final rule definition should refer specifically to both. This emphasizes that independent contractors are ''operators'' under the Mine Act and are responsible for providing effective training to their employees under the requirements of the final rule. Use of both terms also eliminates any confusion that the use of the generic term ''operator'' may create. The proposed definition also did not include a specific reference to the competent person's ability to communicate. The final rule includes this requirement in response to commenters who believe that communication skills are critical to effective training.

Many commenters generally supported the proposed definition of ''competent person.'' They stated that instructors should not have to satisfy extensive qualification requirements or obtain MSHA approval before providing training to miners. A number of commenters indicated that the flexible provisions proposed would allow operators to have access to more than adequate resources to ensure quality training for miners.

Several commenters recommended that we insert language in the definition of ''competent person'' that requires instructors to have knowledge of mining and of the specific hazards miners face on the job. These commenters believed that this language would enhance the quality of training. Another commenter suggested that the definition include a requirement that the competent person have at least one year of mining experience.

We considered adopting these recommendations in the final rule. We have concluded, however, that such requirements would not guarantee quality instruction and may unnecessarily restrict otherwise qualified persons from providing training under the final rule. We agree with the views of one commenter who stated that there may be some situations where mining experience could enhance the quality of training, but that persons without such experience could still be competent in educating people and communicating necessary subjects to them. A wide variety of subjects will be relevant to health and safety conditions at the various mine sites covered by this rule. Persons who have expertise in certain relevant areas, but who lack actual mining experience or experience applicable to mining, can be effective instructors in their specialized areas. For example, the final rule requires that you instruct new miners and newly hired experienced miners in the statutory rights of miners. A requirement that the person who teaches this subject have either actual mining experience or mine-specific knowledge would serve no purpose. Someone without mining experience but with a legal background, such as a paralegal or an attorney familiar with the provisions of the Mine Act, could provide effective instruction on that subject. In the same vein, someone without mining experience but with a medical background, such as a nurse practitioner or an emergency medical technician, could provide effective instruction in first aid. Finally, an individual with expertise in electrical hazards on specific types of equipment that are used in both mining and non-mining applications could provide appropriate training on those hazards, even if that person has no mine-specific experience.

Several commenters stated that there are certain skills a person must have in order to be considered competent. One commenter stated that a person who conducts training should have not only substantive knowledge of the subject area but also the ability to effectively communicate the information to the persons receiving the training. Some commenters recommended that the definition of ''competent person'' address communication skills, such as lecturing and writing, and the ability to train adults. Several commenters recommended that, at a minimum, persons designated to provide training receive specific instructor training to ensure that they are able to teach miners effectively. Other commenters stated that the proposed definition was appropriate and that the final rule should not require specific training for instructors. These commenters maintained that production-operators and independent contractors were in the best position to determine who was capable of providing training and that the final rule should give them flexibility and latitude in designating competent persons. A number of commenters also stated that formal instructor training would not guarantee quality training.

As under the proposed rule, the definition in the final rule does not specify the type or extent of ability, training, knowledge, or experience needed for a person to be ''competent'' and, therefore, qualified to provide training under the final rule. This is consistent with the overall performance-oriented approach taken in the final rule. We agree with commenters who were concerned that more stringent requirements could seriously limit the pool of potential instructors, without any assurance that these requirements enhance the quality of the training provided. However, this approach places the responsibility on production-operators and independent contractors to ensure that their employees receive adequate health and safety training under the final rule. Production-operators and independent contractors must assess whether the person who will provide training has the requisite expertise, communication skills, and ability to evaluate the training.

The final rule does not adopt the recommendation of some commenters that the definition of ''competent person'' specifically require training in effective instruction or communication. However, in response to commenters who indicated that communication skills were essential for good training, the final rule definition of ''competent person'' includes language requiring that the competent person be able to effectively communicate the training subject to miners.

The final rule, like the proposal, also requires that the competent person have the ability to evaluate whether the training given to miners is effective. As addressed in greater detail in the preamble discussion for § 46.4, the final rule does not specify how the competent person should conduct such an evaluation. Instead, as part of our outreach efforts, we intend to provide compliance assistance to you to help you to identify competent persons to provide training for your miners.

One commenter stated that the ''competent person'' should be able to demonstrate the ability to identify hazards and should have the authority to take prompt corrective measures to eliminate existing or potential hazards. The definition suggested by this commenter is similar to the definition of ''competent person'' under OSHA regulations at 29 CFR 1926.32(f). OSHA regulations define ''competent person'' as—

> * * * one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

You should not confuse the OSHA definition of ''competent person'' with the same term under this final rule. Under OSHA regulations, a ''competent person'' is not only responsible for worker training, but also must have the authority to correct workplace hazards. Our final rule, like existing part 48, limits instructors' responsibilities to providing training to miners and does not require the instructor to have the authority to eliminate workplace hazards. Correction of hazards remains the responsibility of the production-operator and the independent contractor.

Equivalent experience. Final § 46.2(c) defines ''equivalent experience'' as work experience where the person performed duties similar to duties performed in mining operations at surface mines. The proposed rule included this term in several provisions but did not define the term. Several commenters questioned what constituted equivalent experience, stating that the final rule should provide mine operators with guidance in determining the kinds of experience that would be considered equivalent, in such areas as construction or public utility work. In response to these comments, the final rule provides examples of the types of experience that may be equivalent, such as work as a heavy equipment operator, truck driver, skilled craftsman, or plant operator. We intend that these examples serve to illustrate the types of work that may be counted as equivalent experience under the final rule, but these examples are not an exhaustive list. As we stated in the preamble to the proposal,

''equivalent experience'' includes such things as work at a construction site or other types of jobs where the miner has duties similar to the duties at the mine where he or she is employed, in a work environment similar to the mine environment.

Experienced miner. A number of commenters addressed the proposed definition of ''experienced miner.'' Like the proposal, final § 46.2(d) provides that a miner is ''experienced'' if he or she satisfies one of several criteria. The final rule adopts the criteria included in the proposal and, in response to comments, adds a provision that a miner with 12 months of cumulative surface mining or equivalent experience on or before the effective date of the final rule is an ''experienced miner.''

Section 46.2(d)(1)(i) of the final rule, like the proposal, brings within the definition of ''experienced miner'' any person employed as a miner on April 14, 1999—the date that the proposed rule was published in the **Federal Register**. Most regularly employed miners will be ''experienced'' under this definition, and therefore not subject to the new miner training requirements in § 46.5 of the final rule. This is similar to the approach taken in 1978 when part 48 went into effect. The definition of ''experienced miner'' in part 48 included all persons employed as miners on the effective date of the regulation, regardless of the length of their mining experience or the extent of their health and safety training. Most miners who were employed on April 14, 1999, even those at intermittent operations, will have accrued at least several months of experience by the rule's effective date.

Under final § 46.2(d)(1)(ii), a person will be considered an ''experienced miner'' if he or she has at least 12 months of cumulative surface mining or equivalent experience on or before the effective date of the final rule. In the preamble to the proposed rule, we pointed out that a miner with many years of experience who happened to be out of work on April 14, 1999, would not be an ''experienced miner'' under the proposal. We solicited comment on whether this would have an adverse impact at some operations, particularly those that operate on an intermittent or seasonal basis. Many commenters responded, expressing their concern that the proposed definition would mean that miners with extensive mine employment would not be considered experienced and would be required to receive new miner training. In contrast, a miner who was employed on one specific day—April 14, 1999—would be considered experienced and subject to less comprehensive training requirements. These commenters strongly recommended that the final rule include miners who had accrued at least 12 months of experience before the effective date of the final rule within the definition of ''experienced miner.'' We agree with the point made by these commenters, and the final rule adopts the suggestion of these commenters. Additionally, the final rule clarifies the intent of the proposal that the 12 months of experience are cumulative and may be accrued in non-consecutive months. This recognizes that many operations affected by this rule operate seasonally or intermittently, and that it is not uncommon for miners to work several months on and several months off. These patterns of employment make it difficult, if not impossible, for many miners to accrue 12 months of experience in one continuous period.

Commenters supported this interpretation, but strongly recommended that the language of the rule itself specifically provide that miners may accrue experience in non-consecutive months. We agree with commenters that this interpretation should be clarified, and the final rule provides that the requisite experience must total at least 12 ''cumulative'' months.

The final rule, like the proposal, allows equivalent experience to be counted toward the required 12 months of cumulative experience. We recognize that the operations and equipment at many of the mines covered by this final rule are very similar to the operations and equipment used at many non-mining operations, such as road construction sites. Although commenters generally supported credit for equivalent work under the definition of ''experienced miner,'' one commenter recommended against such credit. This commenter contended that credit for equivalent experience would not enhance miner health and safety because many injuries and deaths occur among newly hired experienced miners. We acknowledge that miners who are unfamiliar with a new mine site, even those with extensive experience, may be at risk of injury. To address such concerns, § 46.6 of the final rule requires newly hired experienced miners to receive specified training. This training is intended to ensure that experienced miners are thoroughly familiar with the particular environment and hazards present at a mine that is new to them.

Several commenters recommended that the final rule provide guidance on what constitutes equivalent experience. In response, the term ''equivalent experience'' has been defined in § 46.2 as ''work experience where the person performed duties similar to duties performed in mining operations at surface mines.'' This definition is described in more detail elsewhere in this section of the preamble.

Under the final rule, operators must determine the extent of the miner's experience, and also whether any non-mining experience is equivalent. The final rule imposes no specific requirements for tracking or recording the accumulated experience. It is the responsibility of production-operators and independent contractors to determine the miner's experience, based on the miner's work and training history.

Paragraph (d)(1)(iii) of final § 46.2 includes within the definition of ''experienced miner'' a person who began employment at a mine after April 14, 1999, the date of publication of the proposal, but before the effective date of the final rule, and who has received new miner training consistent with the requirements proposed under § 46.5 or with existing requirements for surface miners at § 48.25. This is similar to a provision included in the proposal and is intended to provide flexibility to those of you who are already providing training to your miners under part 48, or who wish to provide training under the requirements of proposed part 46 before the final rule takes effect. This provision is not intended to require compliance with the proposed rule, but was proposed as a voluntary option for those of you who wanted to begin developing a training program before the publication of the final rule.

This aspect of the proposed rule received little substantive comment. However, the final rule clarifies which miners are affected by this provision. Under the final rule, this paragraph will apply to miners who began employment as miners after April 14, 1999, but before the effective date of the final rule. You should be aware that a miner who began employment between these dates may otherwise be considered ''experienced'' under paragraph (d)(1)(ii) because he or she will accrue 12 months of experience by the rule's effective date. Miners who have not accrued the necessary experience and who do not otherwise fall within the definition of ''experienced miner'' must receive new miner training under the final rule.

Final § 46.2(d)(1)(iv) provides that a person employed as a miner on or after the effective date of the final rule who has completed 24 hours of new miner training under either § 46.5 or § 48.25 and who has at least 12 months of

cumulative surface mining or equivalent experience would be an ''experienced miner'' under the final rule. As discussed earlier, the use of the term ''cumulative'' in the final rule is intended to make clear that the necessary experience need not have been gained in consecutive months, but can be accumulated over a period of time. Also as discussed earlier, the final rule reflects the intent of the proposal and clarifies that this provision applies to miners who are employed as miners on or after the effective date of the final rule.

Several commenters recommended that the final rule define the term ''experienced miner'' as a person who either has 12 months of experience or has received the required 24 hours of new miner training, but not both. These commenters believed that either training or experience provided a sufficient basis to consider a miner ''experienced'' under the final rule.

As we indicated in the preamble to the proposed rule, we have concluded that an ''experienced miner'' should have both training and work experience. Nothing offered by commenters has persuaded us otherwise. However, we continue to recognize that many miners currently working at mining operations affected by the final rule have extensive experience in the industry and should not be treated as inexperienced miners when the final rule takes effect. The final rule therefore provides that a miner will be considered experienced on the rule's effective date if he or she either has accrued a certain level of mining experience or has received specified health and safety training. This recognizes that there will be a period of transition for the mining community on the effective date of the final rule and is intended to facilitate compliance. The definition in the final rule, like that in the proposal, allows equivalent experience to be counted towards the 12-month requirement.

Final § 46.2(d)(2) is adopted without change from the proposal and provides that an experienced miner retains that status permanently under part 46. This is consistent with recent revisions to part 48. This aspect of the proposal received little comment, but was generally supported by those commenters who addressed it. This provision applies in those situations where a miner is returning to work in the mining industry after being away, either because the miner took a job in another industry, such as construction, or because he or she had been laid off. Once a miner attains the status of an ''experienced miner'' under the final rule, he or she is considered experienced permanently. However, you should be aware that final § 46.6 requires that newly hired experienced miners complete newly hired experienced miner training no later than 60 days after beginning their employment.

Independent contractor. Final § 46.2(e), like the proposal, defines ''independent contractor'' as a person or entity that contracts to perform services at a mine under this part. This is consistent with the language of the Act, which includes independent contractors who perform services or construction at a mine within the definition of the term ''operator.'' This aspect of the proposal received little comment, except that several commenters found that the proposal's use of the term ''operator'' to refer to both production-operators and independent contractors was confusing. In response to these comments, the final rule use both ''production-operator'' and ''independent contractor,'' where appropriate, to avoid any misunderstanding.

Mine Site. Section 46.2(f) of the final rule defines the term ''mine site'' for purposes of part 46 as ''an area of the mine where mining operations occur.'' The final rule defines the term ''mining operations'' as ''mine development, drilling, blasting, extraction, milling, crushing, screening, or sizing of minerals at a mine; maintenance and repair of mining equipment; and associated haulage of materials within the mine from these activities.'' The proposed rule used the term ''mine site'' but did not define it. At some mines, there may be portions of mine property where no mining operations occur and where mining hazards are limited or nonexistent, such as an office building that is on mine property but is isolated from mining activities. This situation may be more common at larger mines with more extensive operations. The term ''mine site'' does not include such areas within its definition.

Miner. The term miner is defined in final § 46.2(g)(1)(i) as any person, including any operator or supervisor, who works at a mine and is engaged in mining operations. This definition specifically includes within its scope independent contractors and employees of independent contractors who are engaged in mining operations. Section 42.2(g)(1)(ii) also clarifies that the definition of ''miner'' includes any construction worker who is exposed to hazards of mining operations.

The definition of ''miner'' in the final rule differs from the definition in the proposal, which would have defined ''miner'' as a person engaged in mining operations integral to extraction or production. The proposed rule defined ''extraction or production'' as the mining, removal, milling, crushing, screening, or sizing of minerals, as well as the haulage of these materials, a narrower range of activities than the term ''mining operations'' under the final rule.

Many commenters supported the proposed definition of ''miner,'' stating that it was consistent with the overall approach of the proposal to provide training commensurate with the risks experienced by the person to be trained. The definition of ''miner'' in the final rule is intended to address the concerns of several commenters that the proposed definition was not sufficiently inclusive. Some of these commenters stated that workers are killed and disabled at mine sites every year even though they do not directly participate in the extraction and production process. Several commenters recommended that the final rule define ''miner'' to include persons who are regularly or frequently exposed to mine hazards. These commenters were concerned that limiting comprehensive training to those engaged in activities that were integral to extraction or production would mean that some workers exposed to hazards would not have the proper training and would be unable to recognize the hazards and protect themselves. One commenter pointed out that individuals who enter mine property to service, maintain, assemble, or disassemble mine extraction or production equipment are at risk, but it was not clear that the proposed definition of ''miner'' would include these workers.

We intend that the definition of ''miner'' include persons who are engaged in activities related to day-to-day mining operations. The final rule defines ''miner'' in terms of the activities the individual performs at the mine, which are activities that would expose workers to hazards associated with mining operations. We intend that workers who provide regular maintenance of mining equipment on the mine site be considered ''miners'' under the final rule. However, the proposed rule was not clear on this point. To address this, the definition of ''mining operations'' in the final rule specifically includes maintenance and repair within its scope, and those workers who maintain and repair equipment would be ''miners.''

You should be aware, however, that § 42.2(g)(2) provides that maintenance and service workers who do not work at a mine site for frequent or extended periods are excluded from the definition of ''miner.'' This means that maintenance and service workers who

come onto mine property infrequently or for short periods of time, and whose exposure to mine hazards is consequently limited, are not considered ''miners'' for purposes of part 46.

The final rule, like the proposal, specifically includes operators and supervisors within the definition of ''miner'' if they are engaged in mining operations; operators and supervisors who fall within the definition are covered by the same training requirements in the final rule as rank-and-file miners. Commenters were generally supportive of this aspect of the proposal and stated that the type of training that workers receive should depend on the types of work they are performing and the hazards that they encounter in performing that work, not on their job titles. The final rule also clarifies the intent of the proposal that independent contractors and independent contractor employees who are engaged in mining operations are also ''miners'' under the final rule. This clarification responds to several commenters who were concerned that the proposed rule did not make clear that independent contractors are included within this definition.

Final § 46.2(g)(1)(ii) provides that ''miner'' also means any construction worker who is exposed to hazards of mining operations. Although the proposed rule itself was not explicit that construction workers exposed to mining hazards were included, we stated in the proposed preamble that the requirements of this rule would apply to construction workers who work at mines covered by the rule. To ensure that there is no question under the final rule as to the status of construction workers, the final definition of ''miner'' specifically references construction workers.

Our intention under the proposal was that construction workers who were engaged in activities integral to extraction and production would be considered ''miners.'' We provided an example in the proposed preamble of a construction worker who might be a miner under the proposal. In this example the construction worker was building a new crusher in an active quarry. A number of commenters seriously questioned this example, stating that until the crusher is operational, extraction and production activities have not begun, and the construction worker would not be a ''miner'' under the definition in the proposed rule. We agree with commenters that this example may not be consistent with the language in the proposed rule. These comments highlight the fact that construction workers, because of the nature of their work, are not typically engaged in mining operations, such as in the example in the preamble to the proposal. However, construction workers who are at an active mine site will be exposed to significant hazards of mining. Construction workers are also typically at the mine site for extended periods because of the nature of their work, unlike many other employees of independent contractors. For these reasons, the final rule now provides that construction workers who are exposed to hazards of mining operations are considered ''miners'' under the final rule. This means that construction workers who work in an active mine site are considered ''miners'' and must receive comprehensive training (i.e., new miner training or newly hired experienced miner training, as appropriate). Construction workers who are not ''miners'' must receive site-specific hazard awareness training under § 46.11(b). We solicited comment in the preamble to the proposal on whether we should promulgate separate training standards for construction workers. Most commenters who addressed this issue opposed the development of separate training requirements for construction workers and supported the application of the final rule to those workers. These commenters maintained that it was appropriate to include construction workers under the training regulations that apply to other workers at mine sites, pointing out that many of the serious injuries and fatalities in the aggregates industry involve contract construction workers. Only one commenter expressed strong opposition to applying the requirements of the final rule to construction workers. This commenter asserted that including construction workers under the final rule was directly contrary to the Mine Act's statutory language directing MSHA to promulgate appropriate training standards specifically governing construction workers at mine sites. This commenter also maintained that construction workers should not be subject to mandatory training requirements until MSHA promulgates separate regulations under section 115(d) of the Mine Act.

We do not agree that the Mine Act mandates that training requirements for construction workers at mines must be developed as separate standards. As we indicated in the preamble to the proposal, the Mine Act does not prohibit the application of part 46 requirements to construction workers. Section 115(d) of the Mine Act simply directs the Secretary of Labor to ''promulgate appropriate standards for safety and health training for coal or other mine construction workers.'' There is nothing in the statutory language that requires independent training requirements that apply exclusively to mine construction workers.

Final § 46.2(g)(2) is adopted from the proposal with a minor change and further clarifies that the definition of ''miner'' does not include scientific workers, delivery workers, customers, vendors, visitors, or maintenance or service workers who do not work at a mine site for frequent or extended periods. The proposed rule would have excluded ''occasional, short-term maintenance or service workers'' as well as ''manufacturers' representatives'' from the definition of miner. The final rule adopts language that we use in our policy under part 48 to characterize maintenance and service workers who are not regularly exposed to mine hazards and who are therefore not required to receive comprehensive training. We determined that it would be more straightforward to adopt existing terms into the final rule rather than attempt to define new terms—i.e., ''occasional'' and ''short-term''—that we intend to mean essentially the same thing. We intend that the terms ''frequent'' and ''extended'' have the same meaning as under part 48. That is, ''frequent'' exposure is a pattern of exposure to mine hazards occurring intermittently and repeatedly over time. ''Extended'' exposure means exposure to mine hazards of more than five consecutive work days. Consequently, maintenance or service workers who are not at a mine site for frequent or extended periods would not be ''miners'' under the final rule.

Upon further consideration and in response to commenters, we have not adopted the proposed blanket exclusion of ''manufacturers' representatives'' from the definition of ''miner''. Instead, under the final rule, whether or not a manufacturer's representative is a ''miner'' depends on the circumstances of each case. A manufacturer's representative is a ''miner'' if he or she is engaged in mining operations at mine sites—such as maintaining or repairing equipment—for frequent or extended periods. Manufacturers' representatives who are frequently at mine sites but who are not engaged in mining operations would not be ''miners'' under this definition. For example, a manufacturers' representative who is merely marketing mine equipment

would not be a miner, even if he or she is at a mine site on a daily basis.

Several commenters suggested that the final rule provide examples of the types of workers who are considered ''miners.'' Commenters believed that examples would greatly benefit operators in determining who is a ''miner'' under the final rule. Although we agree that examples would provide clarification, we believe that this guidance is best provided in the compliance materials that we will be developing to assist production-operators and independent contractors in complying with the final rule.

Mining operations. As indicated in the preamble discussion of the definition of ''miner,'' the final rule defines ''miner'' as a person engaged in mining operations, and final § 46.2(h) defines ''mining operations''. The proposal would have defined ''miners'' as workers engaged in mining operations integral to ''extraction and production.'' This definition would also have specifically included the associated haulage of these materials at the mine. The proposed rule would have defined ''extraction or production'' as ''the mining, removal, milling, crushing, screening, or sizing of minerals at a mine.''

''Mining operations'' was not defined in the proposal, and, as discussed above, essentially replaces the proposed definition of ''extraction or production''. ''Mining operations'' is a slightly broader definition that includes mine development, drilling, blasting, extraction, milling, crushing, screening, or sizing of minerals at a mine; maintenance and repair of mining equipment; and associated haulage of materials within the mine from these activities. This change responds to commenters who were concerned that the proposed definition of ''miner'' was too narrow and that workers who were exposed to significant mining hazards, such as maintenance workers, would not be included within the definition. The definition of ''mining operations'' specifically includes maintenance and repair of mining equipment, as well as haulage of materials within the mine site. Because the enumerated activities are broader than ''extraction and production,'' they are referred to in the final rule by the term ''mining operations.''

One commenter stated that the haulage of processed materials from stockpiles to offsite customers should be excluded from the definition of ''extraction or production.'' The commenter believed that this would therefore exclude delivery drivers and customer drivers from the definition of ''miner.'' In fact, we intended to exclude customers and delivery personnel from the definition of ''miner.'' To clarify this point, the definition of ''mining operations'' includes the haulage of materials within the mine. Haulage of materials away from the mine is not included in the final rule's definition of ''mining operations,'' and persons who perform only this type of work do not fall within the definition of ''miner.'' Section 42.2(g)(2) also indicates that commercial over-the-road truck drivers may be considered ''customers'' under the final rule and excluded from the definition of ''miner.''

The definition of ''mining operations'' includes ''mine development'', to make clear that certain activities preliminary to extraction would be included. These activities include such things as drilling, mining and developmental work on both newly discovered and established mineral deposits. We have historically considered this phase of activities part of the extraction phase of mining and thus subject to our jurisdiction. However, this would not include exploratory drilling, reconnaissance, search, or prospecting that takes place off of an existing mine site and that is conducted in the search of the initial discovery of mineral deposits.

New miner. Section 46.2(i) of the final rule adopts the proposed definition of ''new miner'' with minor changes. The final rule defines a new miner as a person who is beginning employment as a miner with a production-operator or independent contractor and who is not an experienced miner. As discussed elsewhere in the preamble, the final rule substitutes the terms ''production-operator or independent contractor'' for the broader term of ''operator,'' to make it consistent with the wording of the definition in the final rule for ''newly hired experienced miner.''

Newly hired experienced miner. The definition of this term is similar to the definition of ''new miner''. ''Newly hired experienced miner'' was not defined in the proposed rule, but is defined in § 46.2(j) of the final rule as an experienced miner who is beginning employment with a production-operator or independent contractor.

Commenters questioned whether certain miners, such as those employed by an independent contractor who move from mine to mine, would be considered new miners or newly hired experienced miners. We agree with these commenters that the proposed rule was not clear on this distinction, and the definition of ''newly hired experienced miner'' specifically provides that experienced miners who move from one mine to another, such as drillers and blasters, but who remain employed by the same production-operator or independent contractor are not considered newly hired experienced miners and do not need training under § 46.6 of the final rule. However, final § 46.11 specifically requires that these miners receive site-specific hazard awareness training for each mine.

Normal working hours. Section 46.10 of the final rule, like the proposal, requires that training be conducted during ''normal working hours.'' Final § 46.2(k) adopts the proposed definition of ''normal working hours'' and provides that ''normal working hours'' means a period of time during which a miner is otherwise scheduled to work. This definition is based on a similar provision in part 48 and also provides that the sixth or seventh working day may be used to conduct training, provided that the miner's work schedule has been in place long enough to be accepted as a common practice. This aspect of the proposed rule did not receive much comment, and the final definition is adopted with a minor change from the proposal. The final rule references ''production-operator and independent contractor'' rather than ''operator.'' As discussed earlier, this change is intended to eliminate any confusion that may have been caused by the use of the term ''operator'' in the proposal.

As discussed under § 46.10 of the preamble, we intend that the schedule must have been in place long enough to provide reasonable assurance that the schedule change was not motivated by the desire to train miners on what had traditionally been a non-work day.

Comments received on the proposed definition raised the issue of whether travel to an off-site location and the training conducted at that location must be conducted during normal working hours. These issues are addressed under the preamble discussion for final § 46.10.

Operator. Operator is defined in § 46.2(l) of the final rule to mean both production-operators (defined in this section as owners, lessees, or other persons who operate or control a mine) and independent contractors who perform services at a mine. This definition is consistent with the definition of ''operator'' in section 3(d) of the Act. The term ''operator'' is used throughout the preamble to refer to the person or entities responsible for providing health and safety training under part 46. However, we use the terms ''production-operator'' and ''independent contractor'' in the final rule to distinguish between the two

types of operators and to emphasize that independent contractors also have responsibility for training.

Production-operator. Final § 46.2(m) defines ''production-operator'' as any owner, lessee, or other person who operates, controls, or supervises a mine covered by this part. This would mean the person or entity that actually operates the mine as a whole, as opposed to an independent contractor who provides services. Commenters were generally silent on this aspect of the proposal. This definition is derived from the definition of ''operator'' in section 3(d) of the Mine Act and is adopted without change from the proposal into the final rule.

Task. Final § 46.2(n) defines ''task'' as a work assignment or component of a job that requires specific job knowledge or experience. The proposal would have defined ''task'' as a component of a job that is performed on a regular basis. One commenter pointed out that a task may or may not be performed on a regular basis and questioned why that limitation was included in the proposed definition. The commenter was concerned that there could be instances where a miner is assigned to perform a task on a one-time basis, but a literal reading of the proposed definition of ''task'' suggests that task training would not be required in such a situation. We agree with this commenter, and the wording in the final rule has been clarified accordingly.

This definition identifies the type of job duties that would be subject to the new task training requirements under final § 46.7. Under that section, a miner must be provided with training when reassigned to a task for which he or she has no previous experience, or when the miner's assigned task is changed.

We and *us.* These terms are adopted in the final rule to refer to the Mine Safety and Health Administration (MSHA). We have written the final rule in the more personal style advocated by the President's executive order on ''plain language,'' which, among other things, encourages the use of personal pronouns. Commenters generally supported the use of plain language in both the regulatory language and the preamble, and ''we'' and us'' are used throughout the final rule and preamble to refer to MSHA.

You. The final rule, like the proposal, uses the term ''you'' to refer to production-operators and independent contractors, consistent with ''plain language'' concepts. However, a number of commenters indicated that using ''you'' to refer both to production-operators and independent contractors created some confusion. In response to these comments, we have limited our use of ''you'', both in the final rule language and the preamble, to instances where it is unlikely to be misunderstood or unclear.

The final rule, unlike the proposal, does not include a definition of ''hazard training.'' ''Hazard training'' was defined in the proposal as information or instructions on the hazards a person could be exposed to while on mine property, as well as on applicable emergency procedures. In response to comments, the concepts that were outlined in the proposed definition have been consolidated into final § 46.11, the section of the final rule that specifically addresses site-specific hazard awareness training. A separate definition for ''hazard training'' is not needed as a result, and the proposed definition has not been adopted in the final rule.

Section 46.3 Training Plans

Section 46.3 of the final rule requires production-operators and independent contractors to develop and implement a training plan and also addresses MSHA approval of training plans, how and where a copy of the training plan must be maintained, and who has access to the plan. The requirements of section 46.3 apply to production-operators and those independent contractors who have employees who fit the definition of ''miner'' under final § 46.2. These requirements have been adopted, with some changes, from the proposed rule.

In developing the final rule, we have attempted to develop practical requirements for health and safety training programs at the wide range of mines covered by part 46. Section 115 of the Mine Act provides that mine operators shall have a health and safety training program that shall be ''approved by the Secretary [of Labor].'' The Mine Act does not set forth a specific method by which we must approve an operator's health and safety training plan. We believe, therefore, that the drafters of the Mine Act intended some flexibility concerning the procedures to be followed by us when implementing MSHA approval of health and safety training plans. We are also mindful that regulatory considerations under section 115 of the Mine Act must be balanced with the congressional intent expressed in section 103(e) of the Mine Act. This provision directs us not to impose an unreasonable burden on mine operators, especially those operating small businesses, when requesting information consistent with the underlying purposes of the Act. As a result, we believe that the Mine Act provides us with the discretion to approve health and safety programs by requiring something other than the operator's submission to us of a proposed training plan.

While not establishing specific procedures to be followed, Congress did provide minimum requirements in section 115 of the Mine Act to guide us in determining what should be considered an approved health and safety training program. First, we interpret section 115(a) of the Act to require that each operator develop and implement an approved health and safety training program under which miners are provided certain minimum training as specified by section 115. For example, section 115 provides that ''new miners having no surface mining experience shall receive no less than 24 hours of training if they are to work on the surface'' and that any training must be provided ''during normal working hours.'' As a result, an operator's training program can only be approved if the proposed training fulfills the operator's compliance obligations under section 115 of the Act. In addition, we believe that in order for an operator's training program to be approved, it must be in compliance with any minimum requirements established in training standards developed by us in accordance with section 115 of the Act. Accordingly, we believe the Mine Act provides us with the authority to include a requirement in the part 46 final rule that would consider an operator's health and safety training plan to be approved by MSHA without formal submission and review, provided such a plan comports with the minimum requirements of section 115 of the Mine Act as well as the provisions for approved plans set forth in this section of the final rule.

Once the final rule goes into effect, we intend to have our inspectors review your health and safety training plans at the mine site during the normal inspection cycle. This will be accomplished in a manner similar to how our inspectors review other mine-specific plans for compliance. Inspectors and other MSHA personnel who review your plan would simply determine—

(1) That you in fact have developed a written training plan;

(2) That the written plan contains at a minimum the information specified in this section; and

(3) That the plan is being implemented consistent with the plan specifications.

Although final § 46.3 allows you greater flexibility in training plan content and implementation, MSHA has determined that the new requirements do not reduce the protection afforded to

surface nonmetal miners under similar standards in existing part 48. While the means used under part 46 may be more flexible and performance-oriented than part 48, the ultimate result—the effective health and safety training of surface nonmetal miners—will be attained under the new standard. In addition, because miners are in a good position to evaluate the health and safety concerns at their workplace, the final rule includes requirements that provide for the notification and involvement of miners and their representatives in the development of approved training plans before implementation. We also wish to emphasize the enhanced health and safety benefits to miners resulting from final § 46.3, which will allow us to focus our resources on verification of plan execution and assistance to you in providing effective training at your mines, rather than on a paper review and approval of training plans at our offices. Likewise, you and training providers can focus on the development of training plans that address the health and safety concerns at your operation, rather than on traditional procedures to gain our approval.

Final § 46.3(a) requires production-operators and independent contractors who have employees who are ''miners'' under the final rule to develop and implement a written plan, approved by us under either paragraph (b) or (c) of final § 46.3, that contains effective programs for training new miners and newly hired experienced miners, training miners for new tasks, annual refresher training, and site-specific hazard awareness training. We received few comments on this aspect of the proposal, and we have adopted this provision unchanged into the final rule.

Final § 46.3(b) provides that a training plan is considered approved by us if it contains—

(1) The name of the production-operator or independent contractor, mine name(s), and MSHA mine identification number(s) or independent contractor identification number(s);

(2) The name and position of the person designated by you who is responsible for the health and safety training at the mine. This person may be the production-operator or independent contractor;

(3) A general description of the teaching methods and the course materials that are to be used in each training program, including the subject areas to be covered and the approximate time to be spent on each subject area;

(4) A list of the persons and/or organizations who will provide the training, and the subject areas in which each person and/or organization is competent to instruct; and

(5) The evaluation procedures used to determine the effectiveness of training.

Plans that include the information listed in this section are considered ''approved,'' and you are not required to submit the plan to us for traditional review and approval. The required information is virtually the same information that would have been required by the proposal, with a few minor changes, explained below.

A number of commenters supported the proposed guidelines for plan content, emphasizing the wide variety in size and type of mining operations falling under part 46 requirements. These commenters stated that the most effective training plans are those that can be tailored to the particular operation, directed toward specific mine processes or hazards or on the accident and injury experience at the mine. These commenters favored the latitude that the proposed rule would give production-operators and independent contractors in developing training programs.

A number of commenters addressed the minimum information that the proposal would require in the operator's written training plan. One commenter believed that it was unnecessary for the training plan to specify the approximate time that would be spent on a particular subject and recommended that the final rule not require it. This commenter contended that the time spent on a particular topic is unique to the persons attending a specific training session, because different groups learn at different rates.

Commenters questioned the need for the plan to include the name of the persons providing the training and the subjects in which they are competent to instruct. These commenters recommended that the final rule not require this information. Other commenters contended that requiring instructors to be identified suggests that all training under part 46 must be provided in a classroom setting and recommended that the final rule clarify that operators can use alternative and innovative training methods as well as classroom training.

As stated in the preamble to the proposal, our intention is that the information that operators must include in their training plans will be sufficient to allow us to make a determination of your compliance with training plan requirements, without imposing an unnecessary paperwork or recordkeeping burden. Additionally, the training plan serves as an essential framework for the operator's training programs. We expect that operators will direct adequate time and resources to the development of their training plans. We intend that the flexible written plan requirements in the final rule will allow operators to devote the time saved from the reduction in administrative burden to be directed towards development of their training programs. Although part 46 gives operators flexibility in designing their training programs and attempts to minimize paperwork burdens, we do not intend that part 46 allow operators to deliver training to miners on an ad hoc basis. Although we strongly encourage operators to tailor their training programs to the needs of their particular operations, this does not mean that we advocate that operators change fundamental components of their miner training programs from one day to the next, at their convenience.

We do not believe that it is unduly burdensome to require operators to indicate the approximate amount of time that will be spent on a particular subject area. As a practical matter, operators must determine how much time will be spent on a particular subject as part of the development of an effective training program. We would point out that the final rule, like the proposal, requires that the ''approximate'' amount of time spent on a particular subject be included in the training plan. This provides operators with some leeway in organizing their training and also addresses the concern of one commenter that different groups learn at different rates of speed. For example, if an annual refresher training program includes a course in traffic hazards, the training plan could indicate that the course will last over a specified range of time, such as from one to two hours. For the same reasons, requiring a list of competent persons who will provide training is not unreasonably limiting. It would be acceptable under the final rule for the operator to include names of all potential instructors in a particular subject, even though the course will ultimately be taught by only one of the instructors listed. Further, we disagree with commenters who contend that requiring a list of instructors suggests that training must be conducted in a classroom setting. In fact, final § 46.4(d) specifically provides that training methods may consist of classroom instruction, instruction at the mine, interactive computer technology or any other innovative training methods, alternative training technologies, or any combination of methods. Additionally, we believe that the final rule's requirements are sufficiently flexible to allow operators to

readily address new or emerging health and safety concerns at their operations. For these reasons, we have not adopted these commenters' recommendations in the final rule.

Several commenters expressed concern that several of the informational requirements in § 46.3(b) were inappropriate and too restrictive for new task training and site-specific hazard awareness training. Some of these commenters indicated that it was unrealistic to require an operator to foresee all of the types of task and hazard awareness training that may be needed for all job categories and to write them up in the plan. One commenter stated that an operator needs the flexibility to offer such training by the most qualified person available at the time the training is to be conducted, and that requiring an operator to indicate the identity of the competent person who will provide this training in the plan will restrict this flexibility. These commenters also contended that evaluation of training effectiveness, particularly hazard awareness training for vendors and visitors, would be difficult to accomplish without the needed flexibility. These commenters therefore recommended that the required documentation of site-specific hazard awareness training and new task training be limited to a statement of the training objectives and the method of instruction.

We disagree that the plan information included in the proposed rule and adopted into the final rule is unduly restrictive for new task and hazard awareness training. As discussed above, it would be acceptable for an operator to include a list of potential instructors for a particular subject in the training plan, even though only one of the instructors will actually end up providing the training. Additionally, most operations covered by the final rule are small and typically operate with limited equipment, and the number of new tasks miners at these mines will be assigned is also limited. Including a list of these tasks in the training plan would not impose an unreasonable burden on production-operators and independent contractors at many mines. As mentioned above, the plan could identify several potential instructors for training in a particular task. Similarly, the plan could summarize the site-specific hazard awareness training that will be given based on the type of worker who will receive it. For example, the type of hazard awareness training given to independent contractors who are at the mine site to repair mining equipment would most likely differ in scope and content from the training given to truck drivers who come onto the mine site for brief periods to deliver supplies. The plan should provide a description of the training that will be given to different categories of workers. We believe that the final rule language affords operators adequate flexibility with regard to task and site-specific hazard awareness training. Consequently, we have not adopted the recommendation of these commenters that the final rule reduce the plan information requirements for these types of training.

One commenter pointed out that if an operator arranges with an outside organization to provide some or all of the required training, the operator probably will not know the names of the instructors from the training organization who will provide the training. For these reasons, this commenter asserted, it would not be possible for the operator to indicate the names of the instructors in the training plan. We agree that in such situations production-operators or independent contractors will be unable to indicate the specific instructors who will provide training. We also agree that it is appropriate to allow flexibility in these cases. The final rule therefore provides that the plan may indicate the person or organization that will provide the training, as appropriate. This means, for example, if a production-operator or independent contractor arranges for some portion of part 46 training to be provided by XYZ Training Company, the plan may simply indicate that an instructor from that company will provide training in specified areas. You should be aware, however, that final § 46.9 requires that the training records and certificates for this training indicate the name of the person who provided the training. Obviously, the identity of the instructor will be known at the time that the training is provided, and recording this information should present no problem to the production-operator or independent contractor.

One other commenter questioned the use of certain terms in the proposal, and asked whether there was a difference between a training ''plan'' and a training ''program.'' This commenter observed that the proposal provided that the training plan must cover five different programs—(1) New miner training; (2) newly hired experienced miner training; (3) annual refresher training; (4) new task training; and (5) site-specific hazard awareness training. Each training program is in turn made up of one or more courses, with each course covering a subject area. This commenter suggested that if his observation is correct, then the information in paragraphs (b)(1) through (b)(5) should be required for each training ''program,'' not each training ''plan.''

This commenter's understanding of the scheme of the plan requirements is correct. In response to this comment, we have made a minor change in paragraph (b)(3). The final rule requires that the plan include a general description of the teaching methods and the course materials that are to be used in each ''training program.'' If the operator is using the same teaching methods and course materials for all programs, the operator need not describe each individually but may simply state that methods and materials will be used for all programs. The proposal would simply have required that this description be provided for methods and materials used in ''providing the training.''

We have also made small clarifications in final § 46.3(b)(1). Instead of requiring the ''company'' name, as under the proposal, the final rule requires the ''name of the production-operator or independent contractor.'' This paragraph now also references the MSHA independent contractor identification number in addition to the MSHA mine identification number. This is intended to be consistent with the fact that both production-operators and independent contractors with employees who are miners under the final rule are responsible for developing training plans for their employees. Section 46.3(b)(1) also indicates that there may be multiple mine names and MSHA identification numbers indicated on a plan. This may be true in cases where a production-operator operates several mines and has one training plan that covers all of the mines. Additionally, independent contractors typically provide services at multiple mines, and the language of the final rule addresses those instances where a training plan is relevant for more than one mine.

The final rule, like the proposal, requires you to list or describe the evaluation procedures that you will use to determine the effectiveness of training. Evaluation of the effectiveness of training must be an integral part of the training process if accidents, injuries, and deaths resulting from unsafe conditions and work practices are to be reduced. We have retained a performance-oriented approach that allows you to select the method that you will use to determine that training has been effective. Possible evaluation methods include administering written or oral tests to miners, or a demonstration by a miner that he or she can perform all required duties or tasks

in a safe and healthful manner. You could also evaluate work practices to ensure that the miner retains and uses the skills, knowledge and ability to perform his or her duties safely. This evaluation could be accomplished by periodic work observations to identify areas where additional training may be needed. In addition, such observations, along with feedback from miners, could be used to modify and enhance the training program.

The final rule, like the proposal, uses the term ''effective programs'' to deal with instances where a training plan, as implemented, is inadequate or deficient. If we determine that you have not implemented an effective training program, we will issue a citation for a violation of § 46.3(a) that indicates how and why the training program fails to meet this requirement. In cases where the plan as designed falls short in some way, you must revise your plan to address the deficiencies that we have identified to abate the violation. In cases where the plan as designed is adequate but the plan is inadequately implemented, you must take steps to improve the quality of the implementation of the plan. In some cases, you may need both to revise your plan and address inadequacies in implementation. For example, if you have designated an individual as a ''competent person'' who in fact is incompetent to instruct, you must designate someone else to provide training as well as revise your plan to include the new competent person.

Under final section 46.3(a), production-operators and independent contractors are responsible for maintaining an effective training plan at all times at their operation. As a result, it will be necessary for production-operators and independent contractors to monitor the implementation of training plans to determine whether it is effective and therefore in compliance with section 46.3(a) of the standard. We expect production-operators and independent contractors to modify ineffective or deficient segments of their training plan in order to bring them into compliance.

The final rule reflects our determination that, while our review of your written training plan could provide an initial check on the quality of the written program, such review does not ensure that the program is successful in its implementation. This is the same approach taken in the proposal and was the subject of a number of comments. A number of commenters favored the implicit approval of a training plan that meets the minimum requirements in the rule, believing that this approach would allow operators to direct the time saved from the streamlined administrative process towards better plans and plan implementation. On the other hand, some commenters recommended that we maintain oversight of training plans through the plan submission and review process, to ensure that plans meet minimum standards of quality.

The final rule adopts the approach taken in the proposal, and provides that a training plan is considered approved by us if it includes the minimum information specified in this section. This reflects our conclusion that it is not necessary for production-operators and independent contractors to formally submit their training plans to us to achieve the protective purposes of the Mine Act. We believe that a training program can be effective if the operator develops and implements a health and safety training plan consistent with the requirements for an approved plan under this final rule. As we have indicated elsewhere in this preamble, we will provide compliance assistance to operators in developing effective training plans as our resources permit and will develop sample training plans that operators can use as the basis for their own mine-specific plans. Additionally, we will direct our resources toward verification of the effectiveness of training plans in their implementation. Similarly, operators and training instructors will be able to focus on the development and administration of training plans tailored specifically to mine operators' needs rather than on traditional procedures to gain our approval.

The final rule adopts the proposed rule's alternate process for plan approval, for those cases where a plan you develop does not include the minimum required information, where you choose to obtain traditional approval, or where the miners or miners' representative requests such approval. Final § 46.3(c) provides that a plan that does not include the minimum information listed in paragraphs (b)(1) through (b)(5) must be submitted for review and approval by the Educational Field Services Division Regional Manager, or designee, for the region in which the mine is located. The term ''Regional Manager'' refers to the Regional Manager in the Educational Field Services Division (EFS) of MSHA's Directorate of Educational Policy and Development (EPD). The EFS Division is divided into an Eastern and a Western region. In response to requests from the mining community, the responsibility for the approval of training plans was moved from District Managers in Coal and Metal and Nonmetal Mine Safety and Health to the EFS Regional managers or their designees in 1997. Paragraph (k) of this section includes the titles, postal and e-mail addresses, and facsimile and telephone numbers of both EFS Managers.

We anticipate that the majority of plans developed under this part will satisfy the requirements of paragraph (b) and consequently will not be required to be submitted to us for traditional approval. However, final § 46.3(c) allows you to voluntarily submit a training plan for Regional Manager approval. We expect that some of you may prefer to obtain our traditional approval to ensure that there is no question that your training plan satisfies minimum requirements. This aspect of the final rule addresses those concerns. Only a few commenters addressed this aspect of the proposal, and these commenters were generally supportive of it. One commenter endorsed voluntary submission of training plans to us and predicted that it would be used by many mine operators.

Final § 46.3(c), like the proposal, also allows miners and their representatives to request our traditional approval if they choose. Several commenters were opposed to this provision, contending that it was unnecessary and potentially burdensome and could be subject to abuse. One commenter was concerned that a single request from a miner or a miners' representative could trigger our traditional review of a plan. This commenter maintained that miners and their representatives have direct and effective recourse if they believe a training plan is inadequate—they can contact us and request that the plan be reviewed by an MSHA inspector. This commenter was of the opinion that the possibility that the inspector may cite the operator for an inadequate plan is a strong incentive for compliance, and that it was therefore unnecessary to give miners the right to request MSHA review of a training plan.

We disagree with those commenters who believe that miners' participation in the plan development and approval process is unnecessary. The Mine Act explicitly recognizes that miners have an important role in assisting mine operators in preventing unsafe and unhealthful conditions and practices in the nation's mines. The final rule appropriately allows miners and their representatives the right to request MSHA review of operators' training plans within two weeks of receiving the proposed plan from the mine operator in accordance with paragraph (e). The final rule clarifies the intent of the proposal that miners and their

representatives must request MSHA approval within the two-week period allowed for their review. The proposal was silent on when miners and their representatives must request MSHA approval, and the final rule addresses this omission.

Contrary to the assertions of some commenters, we believe that miners should have a role in the process before the plan is implemented. We encourage operators to involve the miners at their mines as much as possible in the plan development process and solicit miners' input in determining the subject areas to be covered and emphasized in the various training programs.

In most cases, we anticipate that miners and their representatives will bring concerns they may have about the training plan to your attention and that any concerns that miners or their representatives have will be resolved informally. However, there may be occasions when attempts at informal resolution of issues raised by miners or their representatives are unsuccessful. For these reasons, the final rule provides a mechanism for our direct involvement to resolve issues or concerns on the part of the miners or their representatives that cannot be resolved informally.

The proposed rule provided miners and their representatives the right to request MSHA review of operators' training plans. However, commenters questioned how an operator would know that miners or their representatives had requested MSHA review of the operator's plan or, conversely, how miners and their representatives would know if the operator requested MSHA review. The proposed rule was silent on these issues. To address these concerns, we have included additional notification requirements in the final rule. The final rule requires miners or their representatives to notify the production-operator or independent contractor when they request our approval of the training plan. In addition, the final rule also requires you to notify the miners or miners' representative when you request our approval of your training plan. The final rule does not specify how this notice must be given. We expect that, in most cases, the party requesting MSHA approval will provide a copy of the request to the operator or the miners' representative, as appropriate. Where an operator requests MSHA approval and there is no designated miners' representative, posting of the request on the mine bulletin board would satisfy this requirement. These provisions will ensure that affected parties are informed when a training plan is submitted to MSHA for review and approval.

Section 46.3(d) of the final rule, like the proposal, requires you to furnish the miners' representative, if any, with a copy of the training plan at least two weeks before the plan will be implemented or, if you request MSHA approval of your plan, at least two weeks before you submit the plan to the EFS Regional Manager for approval. At mines where no miners' representative has been designated, a copy of the plan must either be posted at the mine or a copy provided to each miner at least two weeks before the plan will be implemented or submitted to the Regional Manager for approval. This ensures that miners and their representatives are notified of the contents of your training plan before the plan goes into effect or is submitted to us for approval. This also provides them with an opportunity to comment on the proposed plan and suggest additions or improvements. This aspect of the proposal received little comment and has been adopted without change into the final rule.

We recognize that at many mines, particularly small operations, there may be no miners' representative, and the mine may also lack a mine office and therefore have no appropriate place for posting the plan. Therefore, the final rule, like the proposal, allows an alternative method for notifying miners of proposed training plan contents. Under the final rule, operators may provide a copy of the plan to each miner in lieu of posting.

Final § 46.6(e) gives miners and their representatives two weeks after the posting or receipt of the proposed training plan to submit comments on the plan to you, or to the Regional Manager if the plan is before the Manager for approval. This provision has been adopted unchanged from the proposal. This will provide miners and their representatives with a means to provide input on the training plan, either to you, if traditional approval is not being sought, or to the Regional Manager who is reviewing and approving the plan. This aspect of the proposal received little comment. Although some commenters questioned allowing miners and their representatives to request MSHA review and approval of an operator's training plan, no commenters took issue with giving miners and their representatives the opportunity to comment on a plan.

Final § 46.3(f) provides that the Regional Manager must notify you and miners or their representative, in writing, of the approval or the status of the approval of the training plan within 30 days of receipt of a training plan submitted to us for approval, or 30 days from the receipt of the request by the miner or miners' representative that we review and approve the plan. This requirement has been adopted with minor changes from the proposal and ensures that affected parties are notified of the status of our review of the training plan.

This aspect of the proposal received little comment. The proposed rule did not specify that the 30-day notification requirement would be triggered by a request by miners or their representatives for our review and approval of the plan, but the final rule clarifies this point. Additionally, the proposed rule would have provided that the notice be given within 30 days of the plan submission by the operator or the request for approval by miners or their representatives. We have modified the final rule slightly from the proposal to provide that the 30 day time period will begin to run upon our receipt of the submission or request. This small change will make it easier for us to track and fulfill this notification requirement.

As indicated earlier in this preamble, we anticipate that many of you will not seek our traditional approval of your training plans, and that in most cases concerns of miners or their representatives will be resolved informally. In those limited cases where we become directly involved in approval of a plan, we intend for the Regional Manager to provide reasonable notice to you and miners or their representatives of the status of plan approval or perceived deficiencies in the plan. The notice will also provide parties with a reasonable opportunity to express their views or offer solutions to the problem, without the need for detailed procedures.

A few commenters raised the issue of whether an operator could go ahead and implement a proposed plan pending formal approval by MSHA, in cases where the plan includes the minimum information required by § 46.3(b). These commenters maintained that an operator should not have to delay implementation of safety-related changes while a plan is undergoing review. One commenter also questioned whether a plan would be deemed approved if the 30-day deadline has passed and we have not made a final decision on approval.

Although we agree with commenters that improvements in training plans should be implemented as quickly as possible, we do not agree that the final rule should allow operators to implement plans that are before us for review and approval but that we have

not yet approved. To allow pre-approval implementation could make the approval process meaningless. In addition, such a provision would be inconsistent with the approval procedures contained in other MSHA regulations. Miners or miners' representatives who submit comments will expect MSHA to act on their concerns in the same manner that we do in other regulations. In other regulations a plan does not go into effect until we approve it. We assume that operators who are anxious to implement improved training plans would not seek our traditional review and approval of the plan in the first place, so this would not be an issue. Consequently, the situation referred to by commenters would most likely arise where the miner or miners' representative has requested our review and approval of the plan. We expect that a miner or miners' representative will request our review and approval because there is some concern or disagreement about one or more elements of the plan and the adequacy or effectiveness of the plan as proposed. In such cases, we believe that we should address the concerns or resolve the disagreement before the operator implements the plan. Similarly, we are not in favor of a provision that would deem a plan ''approved'' after a certain period of time has passed. Such a provision could mean that the concerns of miners or their representatives would not be addressed or considered through no fault of their own. We believe that this would be an unfair result, and we have not adopted such a provision in the final rule. We will direct our resources to ensure that we review the plans before us for approval as quickly as possible. We are committed to expeditious review, approval, and implementation of operators' training plans. For these reasons, the final rule does not allow plans to be implemented that are before us for review but that we have not yet approved.

The requirements of § 46.3(g) are new to the final rule, and we have included them in response to comments. This new paragraph (g) will only apply if you submit a plan to MSHA for approval. Under this paragraph, you must provide the miners' representative, if any, with a copy of the approved plan within one week after approval. At mines where no miners' representative has been designated, you must post a copy of the plan at the mine or provide a copy of the plan to each miner within one week after approval. This responds to commenters who were concerned that the proposed rule did not specifically provide that operators must provide miners or their representatives with copies of the approved training plan.

Section 46.3(h) of the final rule, like the proposal, provides you, miners, and miners' representatives the right to appeal the EFS Regional Manager's decision on a training plan to the Director for Educational Policy and Development. A Regional Manager's decision on a plan will be reviewed on appeal by the Director for EPD. Under this paragraph, an appeal must be submitted in writing within 30 days after notification of the Regional Manager's decision on the training plan. The Director for EPD will issue a decision on the appeal within 30 days after receipt of the appeal. We anticipate that this provision will be rarely used and expect that when a disagreement arises between us, you, and miners and their representatives about plan design or content, it can be resolved without the need for intervention of the Director for EPD. However, in those rare cases where the parties are unable to come to terms on the content of a particular training plan, the final rule provides parties the option of seeking review by the Director for EPD of the Regional Manager's decision on a plan. As indicated, parties have 30 days in which to file a written appeal of the Regional Manager's decision on a plan, and the Director for EPD has 30 days from the date of receipt of the appeal to reach a decision. This aspect of the proposal received little comment and is adopted without change into the final rule.

Final § 46.3(i), like the proposal, requires you to make available at the mine site a copy of the current training plan for inspection by us and for examination by miners and their representatives. If the training plan is not maintained at the mine site, you must have the capability to provide the plan upon request to us, the miners, or their representatives. Although the proposed rule was silent as to how quickly you must provide the plan upon request, the final rule specifies that the plan must be provided within one business day of the request. Under the final rule, you have the flexibility to maintain your training plan at a location other than the mine site, provided that you are able to produce a copy of the plan upon request to our inspectors or miners and their representatives within one business day.

Many commenters supported allowing the training plan to be maintained at a location away from the mine, observing that many small mines do not have a formal office. Commenters stated that flexibility in recordkeeping for these mines was appropriate. However, a few commenters recommended that a copy of the plan be kept at the mine site, even if it is in the glove compartment of the supervisor's truck. As indicated in the preamble discussion of final § 46.9, addressing recordkeeping requirements, we recognize that many operations covered by the final rule do not have facilities suitable for extensive recordkeeping. Additionally, § 103(e) of the Mine Act directs the Secretary of Labor not to impose an unreasonable burden on mine operators, especially those operating small businesses, when requesting information consistent with the underlying purposes of the Act. For these reasons, we have concluded that it is appropriate to allow mine operators some flexibility in maintaining their training plans. The final rule, like the proposal, allows you to maintain your training plan at a location other than at the mine site, provided that you can produce a copy upon request by us or miners or their representatives. Unlike the proposal, the final rule includes a deadline of one business day after the request for you to provide a copy of the plan. In the proposal, we solicited comments on whether the final rule should specify a deadline for an operator to produce a plan after a request has been made. A number of commenters recommended a deadline of one business day. We agree with these commenters that this would be reasonable, given the wide availability of overnight mail, electronic mail, and fax machines, and we have adopted this deadline in the final rule.

The requirements of § 46.3(j) have been added to the final rule in response to comments. Under this paragraph, you must follow the plan approval procedures of this section whenever you revise your training plan. In the preamble to the proposal, we indicated our intent that a training plan that underwent significant revisions would be required to go through the approval process of this section, just as though it was a new plan. However, the proposed rule did not include language that would have required this. A number of commenters strongly recommended that we include a provision in the final rule that addressed this.

Several commenters questioned what the process should be when operators revise their training plans. One commenter indicated that obtaining formal MSHA approval every time a training plan is amended is a tedious task that in no way relates to protecting workers. Other commenters recommended that operators be allowed to easily revise the plan when changing information such as the time spent on

a particular subject or on the emphasis given to particular training subjects. These commenters indicated that refresher training needs to be flexible as operators determine the subjects that need to be emphasized within the workforce, and that the training plan should not have to be changed each time such adjustments are made. Other commenters questioned whether adding a new subject to the task training program would necessitate a modification of the training plan and reposting the plan or resubmitting the plan to MSHA for reapproval.

We agree with those commenters who believe that it would be unduly burdensome to require operators to obtain traditional MSHA approval of their training plans even when they make minor revisions to their training plan. We attempted to develop a reasonable definition of ''significant revision,'' so that it would be clear what type of revisions would require an operator to go through the approval process. However, we concluded that what constitutes a ''significant revision'' is extremely subjective and incapable of definition. For example, many people would probably not consider the addition or deletion of one or two training subjects from a training program to be a significant revision of the plan. However, in limited cases, particular subjects may be of concern to miners at the mine, and the miners may consider minor changes to the subjects covered by a plan significant. Changes in training methods or course materials may be of little consequence in most situations. On the other hand, a change from primarily classroom training to interactive computer-based training could be considered a significant change by the miners who will be receiving the training, and they should be notified of this change and have the opportunity to provide input. Because one type of revision may be significant in one set of circumstances but not particularly significant in another situation, we are reluctant to define ''significant revision'' in the final rule. We are concerned that if the final rule were to define the term, there may be instances where a change may not fall within the definition, but nonetheless is something that miners or their representatives would want to be notified of and have the opportunity to comment on. For these reasons, the final rule requires you to follow the procedures for approval in § 46.3 whenever you make a revision to your training plan, including posting or providing copies of the proposed plan to miners, or submitting the plan to us for review and approval.

We anticipate that operators who make minor revisions to their plans will follow the informal plan approval procedures in final § 46.3(b) rather than request our traditional approval under § 46.3(c), even if we have formally approved previous versions of your training plan. Obtaining traditional MSHA approval of your plan does not lock you into the traditional approval procedures hereafter. We expect that when you make minor changes to your plan miners or their representatives will have limited comments on the revisions. However, this process will ensure that miners are notified of plan changes that may appear unimportant, but that represent significant changes to the miners who are trained under the plan.

The provisions of final § 46.3(k) are new to the final rule and include the postal and e-mail addresses, phone numbers, and fax numbers of the Eastern and Western Regional Managers for our Educational Field Services Division. The information is included in the final rule as a convenience to mine operators, miners, and miners' representatives who wish to contact EFS representatives, submit training plans to those offices for review and approval, or obtain information or assistance from MSHA on miner training issues. We have also provided the address of MSHA's Internet Home Page to allow those of you with access to the Internet to obtain current information about the EFS organization.

In the preamble to the proposal, we requested comment on whether we should include sample training plans as a nonmandatory appendix to the final rule. As indicated under the discussion in this preamble on implementation of the final rule, we have concluded that placing sample training plans in a regulatory appendix could restrict our flexibility in making future refinements and improvements to the sample plans. Instead, we will provide operators with sample plans as part of an overall compliance assistance and outreach effort for the mining community. To assist the mining community in complying with the training plan requirements in the final rule, we will post sample plans on our Internet Home Page at www.msha.gov. These plans can serve as the basis for operators' training plans tailored to their specific operations. Additionally, we are currently developing an interactive computer-based program that will assist operators in developing training plans appropriate for their specific operations.

Section 46.4 Training Plan Implementation

Section 46.4 of the final rule, which has been adopted with minor changes from the proposal, requires that training given under this part be consistent with the written training plan required under § 46.3 and be presented by a competent person. Under this section, training may be provided by outside instructors and may include the use of innovative training methods. This section also allows credit for equivalent training, provided to satisfy the requirements of the Occupational Safety and Health Administration (OSHA) or other federal or state agencies, to satisfy part 46 requirements. Finally, § 46.4 permits short health and safety talks and other informal instruction to satisfy training requirements under this part.

Although § 46.4 of the final rule will allow operators greater flexibility in training instruction and implementation, MSHA has determined that the new requirements will not reduce the protection afforded to surface nonmetal miners under similar standards in existing part 48. The flexibility included within final § 46.4, permitting the option of presenting training in short durations and in various formats, will allow miners to more easily retain information and receive effective training in close proximity to their work and associated hazards. Additional health and safety benefits will result from the specific requirement in final § 46.4(a)(3), which provides that training must be presented in language understood by the miners who are receiving the training.

This section was originally entitled ''Training Program Instruction.'' However, one commenter, who supported our use of plain language in the proposal, suggested that a clearer and more appropriate title for this section would be ''Training Plan Implementation,'' given that this section addresses various aspects of plan implementation. We agree that suggested title is more descriptive and makes the final rule easier to understand, and we have adopted the commenter's suggestion in the final rule.

Section 46.4(a)(1) of the final rule, like the proposal, requires that training provided under part 46 be conducted in accordance with the written training plan. No commenter addressed this aspect of the proposal, and it has been adopted without change into the final rule. This provision makes clear that training given to miners to satisfy the requirements of this part must be consistent with the training programs

outlined in your plan and the information included in the plan, such as course content and listed instructors.

Paragraph (a)(2) of final § 46.4 provides that the training must be presented ''by a competent person.'' A number of commenters recommended that the final rule allow training to be given ''under the direction of'' a competent person, to address those situations where a miner may receive training through an interactive computer program rather than through traditional face-to-face training from a live instructor. These commenters stated that this language would be consistent with the use of state-of-the-art training technologies that now exist and would give needed flexibility for the use of other training methods that may be developed in the future, where live instructors may not directly provide training to miners. Some of these commenters also indicated that inclusion of the suggested language in the final rule would allow other individuals to assist the competent person in providing training, even though those persons may not themselves meet the definition of ''competent person.''

Although we agree with commenters that instructors should have the flexibility to use a wide variety of training methods and technologies in providing training under the final rule, we believe that the language proposed allows sufficient flexibility to use new and innovative training methods, and we have not adopted the recommendation of commenters on this issue. As we indicated in the preamble to the proposed rule, we strongly encourage the use of computer-based and other innovative training methods, where a ''competent person'' would facilitate the delivery of training rather than provide it directly. Section 46.4(d) of the final rule specifically allows the use of these types of training methods in part 46 training. However, we are concerned that if the final rule specified that training may be provided ''under the direction of'' a competent person, some operators could wrongly interpret it to mean that computer-based or any other type of electronic or interactive training method could serve as a total substitute for a human instructor and human interaction under part 46. We consider computer-based or other interactive training technologies to be training ''methods,'' to be employed by an instructor effectively and appropriately.

We disagree with those commenters who believed that the language of the final rule should be amended to allow other individuals to assist the competent person in providing training, even though those persons may not themselves meet the definition of ''competent person.'' As a practical matter, a person who does not meet the definition of ''competent person'' does not have the minimum qualifications to provide effective training. The final rule does not allow such a person to instruct miners, even if under the oversight or direction of a competent person.

Like the proposal, the final rule does not require our approval of training instructors, but instead provides that training be given to miners by a ''competent person.'' ''Competent person'' is defined in final § 46.2 as a person designated by the production-operator or independent contractor who has the ability, training, knowledge, or experience to provide training to miners in his or her area of expertise. Additionally, under this definition, the competent person must be able both to effectively communicate the training subject to miners and to evaluate whether the training is effective. The definition of ''competent person'' is addressed in greater detail under the preamble discussion of § 46.2, the section that contains definitions of terms used in the final rule.

Many commenters supported the proposed requirements for training instructors, stating that the final rule should neither impose rigid minimum requirements for instructors nor require MSHA approval of instructors. Several commenters indicated that the flexibility of the proposed provisions would allow operators to have access to more than adequate resources to ensure quality training for miners. Other commenters stated that the approach taken in the proposal would minimize unnecessary administrative burdens on mine operators and allow them to focus their efforts on the effectiveness of their training programs. Commenters maintained that this would allow operators to utilize the best training available, without worrying about whether the instructor has obtained formal approval from MSHA to provide the training. Other commenters stated that operators are in the best position to judge who can most effectively provide required training. One commenter stated that a formal instructor approval program would unnecessarily tie the hands of operators in crafting effective, specifically tailored training programs and would be unlikely to have a significant positive effect on the quality of training delivered. Still others asserted that it is impractical to require certification of instructors, given the widely dispersed operations in the aggregates industry.

Several commenters observed that certifying an individual as an instructor does not guarantee that the person knows how to teach. Instead, commenters asserted that instructors should be judged on the basis of the effectiveness of the training they provide, not on their paper credentials. Along the same lines, one commenter noted that an individual with knowledge and experience in a particular subject may not be an outstanding speaker in the public arena, but nonetheless can be more effective in conveying information than an MSHA-approved instructor. One commenter favored the flexibility in the proposed rule, but recommended that federal and state agencies continue to provide training for instructors to assist the instructors in developing new training methods and techniques. Another commenter stated that there are many tools available to mine operators to ensure that training is effective, including support from trade associations and labor organizations, assistance from our Educational Field Services Division, videotapes, interactive training tools, literature, and, where appropriate, instructor training. This commenter endorsed the flexibility afforded mine operators in designating training instructors in the proposed rule and supported adopting such an approach in the final rule.

Several commenters disagreed with the approach taken in the proposal and instead recommended formal MSHA approval of instructors. These commenters maintained that operators would be unable to determine whether someone was competent to provide training. Several of these commenters were also concerned about whether a person who had extensive substantive knowledge in one area would have the necessary communication skills to provide effective training to miners. Some of these commenters stated that if the existing instructor approval scheme in existing part 48 is in need of improvement, necessary adjustments should be made, but that some form of instructor approval should be adopted in the final part 46 rule to ensure the quality of training.

Under existing part 48, instructors generally obtain our approval to provide training based on written evidence of their qualifications and teaching experience. Several commenters questioned whether these criteria ensured quality training. One commenter stated that becoming a polished instructor by meeting some criteria for MSHA instructor approval is secondary to the person being competent and knowledgeable.

Some of the commenters who supported a formal instructor approval scheme similar to the part 48 approach recommended that if the final rule did not require our approval of instructors, trainers should, at a minimum, receive some form of communications training to ensure that they will present training materials correctly and effectively. Several commenters contended that a person who is going to conduct training needs not only substantive knowledge of the subject area but also the ability to convey the material effectively to the persons receiving the training. One commenter suggested that instructors be required to attend a formal program of instruction to prepare them to instruct adults.

A number of commenters stated that the final rule should impose no additional qualifications for trainers beyond those that were included in the proposed rule. Some indicated that operators should have broad latitude to use on-site trainers for some, or all, of their training needs. Other commenters believed that it is impossible to regulate the quality of instruction with minimum criteria such as academic training, mining experience, years of training experience, etc., and that an instructor certification program would not guarantee the quality of instruction.

The final rule, like the proposal, does not require a formal program for the approval or certification of instructors, or establish extensive minimum qualifications for instructors. We are persuaded by those commenters who insisted that a formal instructor approval program would not guarantee that training will be effective and that any benefits realized from a formal program would not justify the additional administrative burden. We are also persuaded by commenters who stated that there are many experienced and knowledgeable people currently working in the industry who can provide effective training in a wide variety of subject areas, and that their abilities would not be enhanced by a formal instructor approval program.

We are also persuaded by the statements of some commenters that a formal instructor approval program would place limitations on the pool of people who can provide effective training under the final rule, which could have an adverse impact on the successful implementation of the rule's requirements. The large majority of mines covered by the final rule are small operations, employing fewer than 20 people; a significant percentage of these mines have fewer than 5 employees. The flexibility of the final rule will enhance their ability to meet their training obligations. We expect that many small mines will arrange with outside training providers to conduct some portion of required training, supplemented by site-specific health and safety training provided by experienced miners who are competent to instruct in their areas of expertise.

We have not included in the final rule a requirement that trainers receive instruction in how to provide training before they serve as instructors. We agree with the commenters who indicated that such a requirement would provide no real guarantee of the quality of training provided and would instead serve as an unnecessary hurdle for an individual with the knowledge and experience to provide effective training to qualify as a ''competent person'' under the final rule. Instead, the final rule's definition of the term ''competent person'' provides that the competent person must be able to effectively communicate the training subject to miners. We intended in the proposal that the ability to communicate effectively would be an essential element of being a ''competent person.'' However, because many commenters emphasized the importance of communications skills and expressed concerns about the lack of a reference to these skills in the proposal, we have included such a reference in the final rule. Under the final rule you must, therefore, make an assessment of how well a person can communicate in determining whether he or she is capable of providing training for your miners. A person with extensive knowledge in a particular subject area may not be a good choice as an instructor if he or she is unable to convey the information to miners clearly and effectively. If a person has extensive knowledge in a subject area but has weak communication skills, you must either designate someone else as the competent person or take steps to enhance the person's skills, such as by arranging for the person to take a course in effective communication.

Under the final rule, as under the proposal, a competent person must be able to evaluate whether the training given to miners is effective. Several commenters suggested that the final rule provide specific guidance in how the competent person should evaluate the effectiveness of training. One commenter questioned whether the final rule should require that a paper-based evaluation form be distributed to miners at the conclusion of the training session, to be reviewed by us at some later point. This commenter also asked whether the rule should require that students be interviewed after the fact to determine whether the training was adequate.

Another commenter expressed concern over how a competent person who neither works at the mine site nor regularly visits the site will be able to evaluate the effectiveness of the training that has been given. This commenter suggested that the competent person have some mechanism to follow up to evaluate the effectiveness of the training either in person or through the operator.

The final rule does not provide specifications for conducting such an evaluation, because the evaluation method will be determined to a large extent by the type of training given. For example, a written test might be appropriate in a traditional classroom setting, while a miner receiving new task training may be asked to demonstrate to the trainer that he or she can perform the task in a safe and healthful manner. We have concluded that the final rule is not the place to address the wide variety of appropriate evaluation methods that may be used. However, we intend to provide assistance to production-operators and independent contractors in all aspects of the final rule's requirements, including ensuring that the training provided to miners is effective.

A few commenters questioned whether we would have the authority to revoke an individual's status as a ''competent person'' if we conclude that the person does not have the ability to deliver effective training. As a practical matter, because the final rule does not establish a formal instructor approval program, there is no basis for including formal rules to revoke such an approval. Instead, in cases where we determine that an instructor lacks the ability to provide effective miner training, we will cite the mine operator for a violation of § 46.4 of the final rule, for failing to designate a person who is competent to provide required training. To abate the violation, the operator could either designate someone else to provide training, or take steps to address the deficiencies we identify in the abilities of the person providing the training.

Section 46.4(a)(3) has been added to the final rule in response to comments. It provides that training must be presented in a language understood by the miners who are receiving the training. This provision has been added in response to several commenters who were concerned about language barriers that exist at mines across the country where miners are not fluent in English. These commenters stated that failure to address this issue would present a serious obstacle to effective training and that the final rule should be specific in

dealing with such situations. We agree with these commenters, and the final rule has adopted their recommendation. You should be aware that this requirement applies to both oral presentations and written materials. For example, if an instructor is giving oral presentations in Spanish to Spanish-speaking miners who are not fluent in English, any written materials that are used to supplement the oral presentation must also be in Spanish. Similarly, if warning signs at the mine serve as a component of the site-specific hazard awareness training, the signs must be in a language or languages that are understood by the persons who come onto the mine site.

Section 46.4(b) has been adopted with a nonsubstantive change from the proposal and provides that you may conduct your own training or may arrange for training to be conducted by state or federal agencies; associations of production-operators or independent contractors; miners' representatives; consultants; manufacturers' representatives; private associations; educational institutions; or other training providers.

The proposal used the term ''associations of operators.'' The final rule refers to ''associations of production-operators and independent contractors,'' in response to commenters who stated that the term ''operator,'' referring to both production-operators and independent contractors, was ambiguous and a possible source of confusion. The final rule, therefore, includes a specific reference to both production-operators and independent contractors, to eliminate any possible misunderstanding. We have also deleted redundant references to ''other operators'' and ''contractors'' that were included in the proposed rule, and have eliminated the specific reference to ''us.'' Although MSHA works to facilitate effective training, we typically do not provide miner health and safety training. This will avoid creating the impression in the final rule that MSHA will serve as a training provider.

This provision makes clear that you may arrange with a wide variety of training providers to satisfy the requirements of the final rule. This aspect of the proposal received little comment, but those commenters who addressed this provision generally supported it. Although some production-operators and independent contractors, particularly larger companies with formal health and safety programs, may choose to provide all required training in-house, we expect that many operators will make arrangements with outside organizations to provide at least some portion of the required training. A wide variety of effective miner training is available from many types of organizations across the country, and this section of the final rule makes clear that you are free to contract with outside training providers to satisfy your training obligations. In addition, we will be available to assist you in determining what training is appropriate for your specific operations.

Section 46.4(c) has been adopted from the proposal with some change and provides that training required by OSHA or other federal and state agencies may be used to satisfy the training requirements under part 46, provided that the training is relevant to the subjects required in part 46. The final rule also specifies that you must document the training in accordance with § 46.9 of this part. The final rule includes the added language that the training must be relevant to training subjects required in this part, to make clear that only some of the training used to satisfy OSHA requirements or the requirements of other agencies may be credited under part 46. This provision recognizes that many operations regulated by us, such as sand and gravel or crushed stone sites, are also associated with other facilities not regulated by MSHA, such as OSHA-regulated construction sites. In many instances, employees may be shared across several operations under the same management and may perform the same duties at both sites.

The preamble to the proposed rule stated that training provided in accordance with § 46.4(c) must be documented in accordance with § 46.9 to be credited toward part 46 requirements. However, the proposed rule itself did not specifically require documentation. This requirement has been included in final § 46.4(c) to ensure that you are aware of these recordkeeping obligations. This record must not only reflect the duration of the training but must also provide evidence of the relevance and equivalency of the training. We anticipate that miners will in many cases provide you with a record of the equivalent training that was made at the time that the training was given. In cases where such a record is not available, you must document the necessary information in accordance with § 46.9.

A number of commenters supported the acceptance of OSHA training under part 46, stating that much of the training given to satisfy OSHA requirements is relevant to hazards and conditions at the mines covered by this rule. One commenter expressed concern that accepting OSHA or other training to satisfy part 46 requirements could create serious problems, because those programs do not cover all of the subjects required under the Mine Act, such as the rights of miners and their representatives, or address MSHA health and safety standards. Although the commenter is correct in his assertion that such subjects typically would not be covered in OSHA or other types of non-MSHA training, this provision in no way is intended to relieve production-operators or independent contractors of their obligations to ensure that those subjects are covered as part of new miner and newly hired experienced miner training. A production-operator or independent contractor who uses OSHA training to satisfy part 46 requirements must ensure that miners receive instruction in all required subjects. As a practical matter, we expect that OSHA training and other types of training can be used to satisfy only a portion of part 46 requirements, because this training will be relevant only to some of the subjects required under the final rule.

To illustrate how crediting would work, assume that you hire a new miner who worked in the construction industry and whose previous employer provided him with some health and safety training. You determine that the new miner has received four hours of training on first aid methods; one hour of training on instruction and demonstration on the use, care and maintenance of respiratory devices; six hours of training on the safe operation of a front-end loader; and four hours of instruction on the following subjects: electrical hazards, silica, fall prevention and protection, excavations, material handling and moving equipment.

You would be able to credit the miner for four hours for the first aid training. Additionally, if the miner will be required to use a respirator that is the same type as the one for which he received training, you may credit the miner with one hour of training on this subject. Further, if the new miner will be operating the same type of front-end loader that he was trained on as one of his tasks, you may credit some, if not all, of the six hours of training. Finally, you would have to determine how much of the training on electrical hazards, silica, fall prevention and protection, excavations, material handling, and moving equipment are relevant to the miner's exposure to hazards at your mine. If you determine that all of the training is relevant, you could credit the new miner with four hours of training. In this example you would be able to credit the new miner with up to 15 hours of training.

As mentioned above, you must document the previous training in order for it to be credited. One method of accomplishing this is obtaining documentation of the previous training. If this documentation is not available, you must create a written record that identifies the miner, the training which is being credited, when the training was given, the duration of the training, the training methods used, and the person who provided the training. Finally, you must ensure that this individual receives training in all of the other subject areas required to be covered under § 46.5 (b) and (c).

Section 46.4(d) adopts the proposed provision with a minor change and provides that training methods under part 46 may consist of classroom instruction, instruction at the mine, interactive computer-based instruction or other innovative training methods, alternative training technologies, or any combination thereof. The final rule includes a specific reference to ''interactive computer-based instruction'' to make clear that we encourage the use of computer technology in satisfying training requirements under this part. This provision also recognizes that a combination of different training methods can be extremely effective. Commenters were generally supportive of this aspect of the proposed rule.

One commenter stated that the most effective training will include a blend of classroom instruction and on-site workplace interaction. We anticipate that many of you will use a combination of approaches to provide training, including innovative technologies. The classroom may serve as the most appropriate forum for training on some subjects, such as instruction in first aid or the statutory rights of miners and their representatives. On the other hand, mine-site training in such areas as the hazards of certain equipment or mining operations also has a place in an effective training program.

Final § 46.4(e), like the proposal, allows employee safety meetings, including informal health and safety talks and instruction, to be credited toward new miner training, newly hired experienced miner training, or annual refresher training requirements. The final rule, also like the proposal, does not impose a minimum duration for training sessions. Several commenters recommended that the final rule adopt the requirement in part 48 that training sessions last at least 30 minutes. Other commenters suggested, in the alternative, that a 10- or 15-minute minimum be imposed. One commenter recommended that if the final rule allows short sessions to be credited toward training requirements, language should be included in the rule that spells out that only actual instruction be counted. This commenter was concerned that only a portion of a 15-minute session given to a group may be devoted to actual training, taking into account the time required to gather the group together and to focus their attention on the subject at hand. Many other commenters supported not requiring a minimum period of instruction, because in their view some of the best training occurs in sessions of less than 15 minutes. These commenters maintained that the rule should not impose an arbitrary restriction on the length of training sessions. Some commenters stated that trainees can and will retain information given to them in short concise sessions rather than in long classroom courses. One commenter stated that short safety meetings are often pointedly specific and can be given in close proximity to the particular work to which it relates. This commenter also stated that such training is often more memorable than material given in the context of lengthy classroom instruction.

A number of commenters indicated that short training sessions provided throughout the year can be very effective. One commenter stated that safety meetings that cover only job assignments and the expectations for production for the week should not be used to satisfy the requirements under the rule. However, this commenter added that safety meetings that review safe work procedures for a specific job or a specific piece of equipment should count toward part 46 requirements, provided that the competent person takes steps to ensure that the training has been effective within a reasonable period of time after the training has been given. This commenter stated that there are various ways the competent person could conduct such an evaluation, including asking informal questions or watching miners perform a task.

We are persuaded by those commenters who advocate flexibility in the length of training sessions, and this determination is reflected in the final rule. Final § 46.4(e), like the proposal, requires that short training sessions that are used to satisfy part 46 requirements be documented in accordance with § 46.9 of the final rule. This paragraph also provides that you must include only the portion of the session actually spent in training when you record how long the training lasted. This provision has been included in response to commenters who were concerned that a training session that is 20 minutes in length might include only 10 minutes of actual instruction. This commenter was of the opinion that credit should be given only for the time spent in actual training. The added language in this paragraph responds to these concerns. For example, if safety talks are scheduled to last 20 minutes but in reality only 10 minutes of that time is spent in delivering an actual safety or health message, only 10 minutes may be recorded and credited to training under part 46. Additionally, if the session addresses other subjects besides those relevant to health and safety, such as operational or production issues, only that portion of the session that actually covers relevant health and safety subjects may be counted and recorded.

Several commenters questioned when a record must be made of such training. For example, if short sessions are used to satisfy the eight-hour annual refresher training requirement under § 46.8, must mine operators document the training at the time that the training session is completed, or is the record required at the completion of the entire eight hours of training? We agree with commenters that this aspect of the proposal requires clarification, and final § 46.9, which contains the recordkeeping requirements under the final rule, addresses this issue in detail.

Section 46.5 New Miner Training

Final § 46.5 reflects changes from the proposed rule. The final rule, unlike the proposal, requires that a minimum of four hours of training be given to new miners before they begin work at the mine. Additionally, the final rule adjusts the time periods in which you must provide new miner training and includes a table that presents when and what new miner training must be provided. The final rule also clarifies the oversight under which new miners must work before they complete the full 24 hours of new miner training.

As in the proposal, final § 46.5 includes minimum requirements for training new miners when they begin work at a mine, lists subject areas that the training must address, and identifies the subjects that must be covered before new miners begin work at the mine and no later than 60 days after employment begins. The final rule also specifies the minimum number of hours of instruction required by the Mine Act for new miner training and the circumstances where previous training may satisfy new miner training requirements.

As in the proposed rule, § 46.5(a) of the final rule requires that new miners receive a minimum of 24 hours of

training. A few commenters questioned the need for a full 24 hours of training for new miners at very small operations, citing the expenses associated with training, the lack of complexity of their operations, and the limited number of hazards that are present at very small surface mines.

We recognize that there are expenses associated with providing new miner training. However, we believe that the cost of not providing effective training for new miners is considerable. As voiced by several commenters, prudent operators recognize that an investment in health and safety training for employees makes economic sense. Commenters pointed out that a safe and healthful workplace is typically a highly productive one. Attention to health and safety through effective worker training can minimize workers' compensation expenses and avoid extensive medical costs and elevated insurance rates that result from accidents and injuries. We do not agree with commenters who contended that there are fewer workplace hazards at exempt mines compared to other mines. Most significantly, we do not have the authority to reduce the 24-hour new miner training requirement. As noted in the preamble to the proposed rule, section 115(a)(2) of the Mine Act requires mine operators to provide at least 24 hours of training to inexperienced surface miners. It is beyond the scope of our rulemaking authority, and only within Congress' legislative powers, to reduce the 24-hour new miner training requirement. Consequently, we are committed to implementing the congressional directive of section 115(a)(2) of the Mine Act.

Proposed § 46.5(b) would have required that new miners be given instruction in certain subject areas prior to beginning work, but the proposal did not establish a minimum number of hours to be devoted to this initial training. Instead of requiring a minimum number of hours, the proposal delineated four subject areas on which new miners would receive pre-work training to ensure that they are familiar with the operations and environment at the mine, their job duties, and the hazards they may encounter at the mine site. We solicited comment on the appropriateness of this approach, including whether a minimum number of hours should be devoted to initial training, or whether certain criteria, such as mine size or complexity or type of operation or equipment, should govern how much initial training is required. We also described alternative approaches that we considered in developing this provision, including requiring that miners receive the full 24 hours of training, or a lesser amount such as two or four hours, before they begin work duties.

A number of commenters supported requiring a minimum number of hours of training before new miners begin work. One commenter favored an eight-hour minimum of a combination of hazard awareness training and task-specific training before a miner begins work. Another commenter recommended that the final rule require a minimum number of hours of pre-work training and that the minimum number of hours be tied to mine size. This commenter provided as examples an eight-hour minimum for new miners at small mine operations, a 16-hour minimum at mines of moderate size, and the full 24 hours of pre-work training at large mines. Another suggested an eight-hour minimum pre-work training requirement for operations with five or more miners and a minimum of two hours for operations employing fewer than five miners. One commenter who supported an eight-hour minimum stated that small aggregate mines, for example, could meet the requirement by having the new miner perform tasks to which he or she will be assigned. A few commenters stated that all 24 hours of new miner training should be required for some miners, such as independent contractor employees, before they start work at a mine, because these miners are frequently not on the site long enough to receive adequate comprehensive training.

Several commenters strongly advocated adoption of the 24-hour pre-work training requirement in part 48 and cautioned against allowing initial training in periods shorter than eight hours. Under part 48, an operator must give new miners the full 24 hours of training before assigning miners work at the mine, unless the district manager specifically permits the operator to do otherwise. Even with district manager approval, however, part 48 requires operators to provide new miners with a minimum of eight hours of training in certain subjects before they begin work duties. One commenter, who supported a 24-hour pre-work training requirement, maintained that inexperienced miners can be overwhelmed, often tragically, by too many hazards at one time. Supporters of the part 48 approach were particularly concerned that not requiring a specific length of time for training prior to assigning work duties is inconsistent with the Mine Act and part 48 and would lead to abuse in favor of production expediency. According to these commenters, various factors, such as the hazardous nature of mining, the cyclical nature of work, frequent employee turnover, and the inexperience of new miners, reinforce the need for comprehensive and complete training before work duties commence. One commenter added that tracking the amount of training to fulfill the mandated 24-hour requirement would be complicated if fewer than eight hours of initial training were permitted at certain mines based on their size or complexity.

Many commenters opposed any minimum initial training period requirement and asserted that it would be unduly burdensome and unnecessary to apply a minimum number of hours requirement at many mines, particularly at small mines with few employees and limited equipment. Several of these commenters endorsed the proposal's emphasis on a minimum curriculum requirement for new miners before they begin performing assigned job duties, rather than on the amount of time to be spent initially training new miners. Some commenters stated that by requiring a minimum course content, and not a minimum time for initial training, we would permit a more flexible approach to training that recognizes the wide variety of mines covered by part 46. This would allow mine operators to vary the length of individual training topics depending on their needs, mining operations, and experience of their new miners. According to the commenters, a ''one-size-fits-all'' miner training regulation could be costly and ultimately ineffective. One of these commenters maintained that the minimum curriculum requirement combined with the overall 24-hour new miner training requirement is, in fact, protective of the miner. A different commenter pointed out that specifying a minimum number of hours for initial training based upon mine size or complexity could have the unintended effect of depressing mine employment opportunities because operators would limit mine size to avoid stepping up to the next level of training requirements.

We believe it is imperative that new miners are trained and familiar with the operations and environment at the mine, their job duties, and the fundamental hazards they may encounter at the mine site before they actually commence work duties. After reviewing and considering the comments received, we have concluded that the final rule should establish a minimum number of hours of pre-work

training. As noted elsewhere in this preamble, our fatal accident investigations show that a majority of miners involved in fatal accidents at mines that have been exempt from enforcement under the training rider had not received health and safety training that complied with part 48. Moreover, miners at smaller mining operations, many of which are covered by the final rule, also experience higher fatality rates than those at larger operations. We are concerned that by not establishing a minimum number of hours of pre-work training we may inadvertently encourage some operators to devote less than an appropriate amount of time and attention to the pre-work training subjects and essential orientation of new miners. As pointed out by some commenters, inexperienced miners who are unfamiliar with mining methods in general and with the mine site in particular are especially vulnerable to the hazards of their new work environment. We believe that these miners need fundamental and critical health and safety information relevant to their work sites at the earliest stage of their employment. In addition, the time spent presenting this information must be of a sufficient minimum duration to ensure that the training is thorough, meaningful, and effective to orient the new miner to his or her workplace and its health and safety hazards.

We have determined, after reviewing the comments, that at least four hours of pre-work training is needed to provide a new miner with the knowledge and skills to work safely. For the most part, new miners do not possess the knowledge and skills they need to work at a mine in a safe and healthful manner. New miners need some formal and practical training and practice under observation to acquire the knowledge and master the skills they need to avoid endangering themselves or others.

For example, a new miner needs to know how to stop the conveyor belts in use at the mine before he or she begins work there, so that the miner can stop the belt in the event of an emergency. If a co-worker becomes entangled in a moving conveyor, quick action is essential to save the person's life. Unfortunately, some miners have lost their lives because a fellow miner did not know that he could pull the stop cord, located less than a foot away, to stop the belt and save his co-worker. New miners must also be aware that it is unsafe to walk close to storage piles or on top of surge piles. The miner also needs to be aware that he or she must exercise extra care around the mine site, because equipment operators' visibility is typically limited compared to the visibility of a driver in a car on a highway. New miners also need to be familiar with the mine's emergency procedures, including the location of the nearest telephone.

Consequently, final § 46.5(b) requires you to provide no less than four hours of training on the subjects specified before a new miner begins work at the mine. The four-hour pre-work training requirement is a minimum. Clearly, if your mining operation is large and complex, or if the new miner will be performing multiple tasks, more time may be necessary to present the pre-work training materials effectively and in accordance with your training plan. We believe that you are in the best position, with the assistance of miners and their representatives, to determine the correct amount of pre-work new miner training, beyond the four-hour minimum, that is warranted at your operation. You still have the flexibility to address specific problems that may exist at your mine and to vary the length of training time spent on each subject. In this way, you can provide the most effective learning situations for your new miners before they begin work. The length of time devoted to each subject may depend on such factors as the miners' prior experience and familiarity with the aspects of their new assignments, the mining methods used, the environmental conditions at the mine, the tasks to be performed, and the mine's health and safety procedures.

We recognize that some operators of very small mines with limited equipment and facilities may be initially concerned that the four-hour minimum presents too large a burden and is unnecessary. However, these operators should be aware that final § 46.5(e) permits you to satisfy some part of the pre-work training requirements by having the miner practice assigned tasks under controlled conditions.

Proposed § 46.5(b) would have required that operators provide instruction for new miners in four areas before they begin work—

(1) An introduction to the work environment, including a visit and tour of the mine, or portions of the mine that are representative of the entire mine. The method of mining or operation utilized must be explained;

(2) Instruction on the recognition and avoidance of hazards, including electrical hazards, at the mine;

(3) A review of the escape and emergency evacuation plans in effect at the mine and instruction on the firewarning signals and firefighting procedures; and

(4) Instruction on the health and safety aspects of the tasks to be assigned, including the safe work procedures of such tasks, and the mandatory health and safety standards pertinent to such tasks.

Proposed § 46.5(d) also would have required that within 60 days after a new miner begins work at a mine, the balance of the 24 hours of new miner training would be provided on the following subjects—

(1) Instruction on the statutory rights of miners and their representatives under the Act;

(2) A review and description of the line of authority of supervisors and miners' representatives and the responsibilities of such supervisors and miners' representatives;

(3) An introduction to your rules and procedures for reporting hazards;

(4) Instruction and demonstration on the use, care, and maintenance of self-rescue and respiratory devices, if used at the mine; and

(5) A review of first aid methods.

In the final rule, we have added three subject areas that were proposed as post-work training subjects under § 46.5(d)(1), (2), and (3), listed above, to the pre-work training requirements under final § 46.5(b)(5), (6), and (7). These additional subjects include miners' rights; company rules and procedures for reporting hazards; and the hierarchy of authority of supervisors and miners' representatives and their associated responsibilities. We explained in the preamble to the proposed rule that instruction in the delineated initial subjects is intended to ensure that new miners—

(1) Are sufficiently familiar with the hazards at the mine;

(2) Can avoid exposing themselves and others to unnecessary risks;

(3) Can perform their job assignments safely; and

(4) Are able to respond to mine emergencies.

After evaluating comments and testimony, we have concluded that these objectives are best served by requiring that instruction on the three additional subjects be given to new miners before they start work at the mine. Some commenters supported requiring instruction on the company safety policy and on miners' statutory rights as part of the pre-work training curriculum. They indicated that allowing operators up to 60 days to inform miners of this critical information was inappropriate and not protective of miners. To ensure that the health and safety of new miners is not compromised or jeopardized, we believe instruction on the three subject areas must be provided before a miner begins work at the mine. This information will ensure that a new miner knows what fundamental steps to take at the mine to prevent or respond to hazards, who the

management personnel and miners' representatives are at the mine, and what specific statutory rights protect the miner from an unsafe or unhealthful work environment.

The subject areas for new miner training specified in the proposed rule, which were based on those mandated by section 115(a)(2) of the Mine Act, have been retained with minor modifications in the final rule. The topics are sufficiently broad to provide operators with the flexibility not only to introduce new miners to the mining industry but also to address particular conditions and practices that present safety and health hazards at their mines. In addition, as mentioned earlier, portions of final § 46.5 are presented in a table format to make it easy for you to determine the subjects that you must cover for new miner training and when the subjects must be addressed.

We received few comments on the appropriateness of the subject areas delineated in the proposal. Of those who commented on the pre-work training subjects, several commenters supported the mandatory subject areas that were specified in the proposed rule. One of these commenters maintained that it was unacceptable to give operators total discretion on the subjects to be covered in new miner training. The commenter stated that to do so would leave many of these new miners, who are at high adverse occupational risk, unprepared for work at the mine.

We believe that it is not enough for new miners to receive only a general orientation before they begin work. The initial training must also address potential hazards and risks that new miners may encounter at the specific mine site where they will work. As a result, we have clarified the language of § 46.5(b) to provide that the pre-work new miner training in the specified subject areas must also address site-specific hazards at the mine.

Several other commenters suggested revisions in the language for the mandatory pre-work subjects. As a result, final provisions of § 46.5(b)(1) through (b)(3) vary slightly from the proposed rule. One commenter recommended that § 46.5(b)(1) include the term ''walkaround training'' within the description of ''introduction to the work environment.'' We have inserted this term in the referenced paragraph to clarify that the visit and tour of the mine, which is part of the introduction to the work environment, is considered the ''walkaround training'' specified in § 115(a)(2) of the Mine Act. One commenter recommended that the words ''and observed'' be inserted after the word ''explained'' in proposed § 46.5(b)(1) so that it would read that ''the method of mining or operation utilized must be explained and observed'' (emphasis added).

As indicated in the preamble discussion in the proposed rule, we had intended that proposed § 46.5(b)(1) would read essentially the same as the commenter has suggested. We inadvertently failed to include the language we had specified in the preamble in proposed § 46.5(b)(1). Accordingly, the final rule includes the language that was mistakenly omitted from the proposal.

Many commenters generally recommended that the final rule language include more illustrative examples to provide guidance to the regulated community. One commenter generally asserted that we should designate mandatory training subjects based on an analysis of accidents and injuries in our accident and injury database, which he indicated should show the subjects on which miners need training. Some commenters specifically recommended that final § 46.5(b)(2) include examples of hazards, other than just electrical, that might be included as training subjects. In response to these commenters' suggestions, we have identified other types of common mine hazards derived from our accident and injury database as examples of subject areas that might be relevant for new miner training, including traffic patterns and control, mobile equipment (haul trucks and front-end loaders), and adverse ground conditions. We intend these examples to serve only as illustrations of possible subjects for new miner training. They are not mandatory topics.

Proposed § 46.5(b)(3) covered general subject areas associated with emergencies, such as ''escape and emergency evacuation plans in effect at the mine and instruction on the firewarning signals and firefighting procedures,'' that would be required before a new miner begins assigned work duties. One commenter stated that comprehensive first aid training should be addressed, while another commenter advocated that emergency medical procedures be covered during this initial training period. We believe that it is not necessary for miners to receive first aid training and/or a review of first aid methods before they start work. MSHA regulations at 30 CFR 56.18010 already require that an individual capable of providing first aid be available on all shifts, which ensures that a trained person is on site in case of emergency. For this reason, the final rule does not require first aid subjects to be covered as part of the pre-work training. On the other hand, instruction on emergency medical procedures at the mine will ensure that new miners will know from the beginning what steps must be taken in the event of a medical emergency. We have included this topic as part of pre-work training for new miners in paragraph (b)(3). Basically, training on emergency medical procedures could include, as appropriate, a briefing on what steps a miner should take in the event of a medical emergency, the identification of the people at the mine who have satisfactorily completed first aid training, the locations of first-aid equipment and supplies, arrangements that the mine operator has made for 24-hour emergency medical assistance (e.g., with local physicians, medical services, or hospitals, and with emergency transportation services), and where the information on these arrangements are posted at the mine.

Proposed § 46.5(c) would have allowed new miners to practice under the ''close supervision of a competent person'' to satisfy the § 46.5(b)(4) requirement for training on the health and safety aspects of an assigned task, provided that hazard recognition training for the assigned task is given before the miner actually performs the task. Although we did not define the term ''close supervision'' in the proposed rule, we explained in the preamble that we considered it to mean that the ''competent person is in the immediate vicinity of the miner and focusing his or her complete attention on the actions of the miner being trained.'' We also stated that ''[a] miner would not be considered under 'close supervision' if the competent person is occupied with any other task or is not in close proximity to the miner.''

The term ''close supervision'' was also used in proposed § 46.5(a), which would have required a new miner who had not completed the full 24 hours of new miner training to work ''under the close supervision of an experienced miner.'' Our rationale for this proposed requirement, which is modeled after a similar requirement in § 48.25(a), was to protect the health and safety of a new untrained miner until the miner had completed new miner training.

We received considerable comment on the use of the term ''close supervision'' in § 46.5 (a) and (c) of the proposed rule. Generally, commenters did not object to the concept that inexperienced personnel should be closely supervised or have a mentor until they acquire the knowledge, experience, and skills to perform their assigned duties in a safe and healthful manner.

A clear majority of commenters, however, provided unfavorable comment on the term ''close supervision,'' either disagreeing with our interpretation of how it would apply in proposed § 46.5(a) and (c) or disagreeing with the use of the term altogether. One sentiment echoed by most commenters was that the description of ''close supervision'' in the proposed rule preamble was too restrictive and appeared to prohibit the experienced miner in proposed § 46.5(a) and the competent person in proposed § 46.5(c) from training or supervising several people at one time. One commenter indicated that the level of supervision required in § 46.5(a) should be different from the level required in § 46.5(c) and suggested that ''appropriate supervision'' would be the more suitable term for purposes of the requirements in § 46.5(a). Another commenter stated that some of the work assignments appropriate for new miners to practice under § 46.5(c) may be relatively low-risk activities that do not warrant the undivided attention of a competent person.

Similarly, commenters expressed specific concern with proposed § 46.5(a) because of the impracticality of requiring an experienced miner to provide close supervision, as that term was described, of a miner who had not received the full 24 hours of new miner training. In some cases, commenters noted, for each miner trainee needing close supervision, the activities of one experienced miner could be restricted for up to 60 days under this provision. Several commenters pointed out that the greatest impact and burden of complying with these requirements would be on small operators, who have limited personnel and resources and cannot afford to dedicate personnel to supervise new miners in lieu of performing their normal work duties. One commenter indicated that operators' flexibility to provide quality training tailored to their needs would be weakened if they had to choose between providing 24 hours of new miner training quickly or assigning experienced miners to supervise the new miners for lengthy periods. Commenters also suggested more limited periods of time, ranging from 16 to 40 hours, for a new miner to be closely supervised by an experienced miner under § 46.5(a). One commenter maintained that continuous oversight of the new miner under § 46.5(a) was necessary for a limited period of time, but after that, new miners should be able to work, but not alone or in an area where an experienced miner cannot see or hear the new miner. A few commenters characterized a situation where the new miner could work under a ''loose buddy system'' until the miner received adequate training to function safely and independently. Still another stated that new miners should be ''under observation'' so that negative effects do not result.

A few commenters recommended that if the final rule adopts the term ''close supervision,'' the rule should define the term so that people understand what is required without having to refer to the preamble. Some urged that either the term ''close supervision'' be more flexible and redefined, or another term or standard be adopted instead. Many commenters stated that the decision on how closely the miner trainee should be supervised should be within the discretion of the operator and based on the level of perceived risk, evaluating the hazards involved in performing work duties and the employee's work experience. Some commenters recommended that the final rule define ''close supervision'' as ''appropriate attention commensurate with the risks of the supervised activity.'' Another commenter suggested that the experienced miner (or competent person) should be ''close enough to the trainee so that they can communicate in a normal conversational tone'' while the new miner is performing tasks that may expose the miner to mining hazards. Some commenters objected to the term ''supervision'' since it could be incorrectly interpreted to mean that the rank-and-file worker, who may be the designated competent person or experienced miner, was operating in a supervisory capacity or as an agent of the operator.

We carefully considered the comments received and admit that our characterization of the term ''close supervision'' in the proposal was too narrow and did not afford the flexibility that operators need to provide effective new miner training. We also recognize that the term caused considerable confusion and disagreement among commenters. We do not agree, however, with many of the commenters' suggested alternatives because many of the alternatives are themselves vague or subjective.

In § 46.5(a) of the final rule, we adopt the proposed approach of requiring an experienced miner to provide adequate oversight until the new miner has received all 24 hours of new miner training. However, we do not use the term ''close supervision,'' adopting instead performance-based language. Until the training is completed, an experienced miner designated by the operator will be required to observe the new miner's work practices to ensure the miner is not jeopardizing his or her health or safety or the health or safety of others. We do not mean that the experienced miner must abandon his or her normal duties or be assigned to oversee only one new miner. However, in some situations, that may be necessary to ensure that this performance-based standard is met. The relevant portion of final § 46.5(a) is revised to read as follows:

> Miners who have not received the full 24 hours of new miner training must work where an experienced miner can observe that the new miner is performing his or her work in a safe and healthful manner.

For reasons similar to those stated above, we do not adopt in the final rule the term ''close supervision'' used in proposed § 46.5(c), which we have redesignated § 46.5(e) in the final rule. Instead, the final rule requires that practice to fulfill the requirement for training under § 46.5(b)(4) on the health and safety aspects of an assigned task must be performed under the ''close observation'' of a competent person. We would like to emphasize that practice is only allowed to fulfill the § 46.5(b)(4) training requirement and not all pre-work training requirements. We recognize that having the miner practice the actual assigned task may be an appropriate method of training for the health and safety aspects of the task, provided that training, and not production, is the primary goal of performing the task. This interpretation is consistent with Congress' intent that training include a period conducted in circumstances that duplicate actual mining facilities. Conference Rep. No. 95–461, 95th Cong., 1st Sess., 63 (1977).

Proposed § 46.5(d), which has been redesignated § 46.5(c) in the final rule, listed the training subjects that new miners would be required to receive no later than 60 days after they begin work at the mine. As discussed earlier, proposed § 46.5(d) would have required ''review of first-aid methods'' within this 60-day time frame, and this requirement has been retained in § 46.5(c) of the final rule. For a variety of reasons, a requirement of comprehensive first-aid training for many miners is impracticable. A comprehensive first-aid course may last eight hours or longer, a significant portion of the required 24 hours of new miner training. There are a number of other areas that could be addressed during this time that will be of greater overall benefit to the health and safety of miners in the workplace. Additionally, one commenter was

concerned that some people are not physically, mentally, or emotionally equipped to perform first-aid procedures. Nevertheless, the commenter stated that a review of first-aid methods is valuable.

As noted in the proposed rule preamble, you would not be required to hire an approved first-aid instructor or obtain first-aid teaching equipment to provide this instruction. Typically there are miners and designated supervisors at the mine who have already been trained in first aid under the requirements of 30 CFR part 56. One of these individuals could serve as a competent person to provide the first-aid review for new miners.

A few commenters suggested that instruction on respiratory protection be required before a miner begins work at a mine. Although this is an important topic, the final rule does not require new miners to receive training in this subject before they start work. We have determined that allowing this training to take place after miners begin work is unlikely to adversely affect miners' health and safety. As a practical matter, part 48 allows operators to cover this subject after the miner begins work but within 60 days, in those cases where the district manager permits a production-operator or independent contractor to provide new miners with training after assignment of work duties. Additionally, if the miner must use respiratory protection while performing his or her duties, the operator must provide appropriate instruction in the use of the respirator under § 46.5(b)(4) of the final rule, which requires that instruction on the health and safety aspects of the tasks assigned be provided to a new miner before the miner begins work. For that reason, we do not believe that every new miner needs instruction on respiratory protection before their work commences and have not included language to that effect in the final rule.

As previously mentioned, § 46.5(d) of the proposed rule would have required that the balance of statutorily-mandated new miner training be given within 60 days after the new miner begins work. For practical reasons outlined in the preamble, we explained that the 60 days would be measured in calendar days, not working days, and we solicited comment on the proposed schedule and approach.

Only a handful of commenters agreed with the proposed 60-calendar day time limit; the majority of commenters did not support the time period in the proposed rule. A few commenters opposed the 60-day time frame or any suggestions to extend the time frame. Instead, these commenters urged the adoption of a shorter time period. They endorsed either the full 24 hours of new miner training being given before the miner begins work duties, or a 30-day time period after the miner begins work within which to complete the remainder of the 24 hours of new miner training. One of these commenters stated that some employers might exploit a longer time period and deprive short-term miners of valuable training. One commenter echoed general concerns that, if the time frames are promulgated as proposed, part 46 will provide less protection for new miners than existing part 48.

Most commenters who opposed the proposed 60 calendar-day period, however, suggested that either a 60 working-day or longer time period be allowed for completion of the mandated 24 hours of new miner training. One commenter who advocated a 60 working-day deadline appeared to believe, mistakenly, that we intended to require a production-operator or independent contractor to provide new miner training even when the proposed 60 calendar days occurred during a period that a miner was laid off and not working for the operator. This was not our intent. However, we want to make it clear that if this worker were rehired as a miner, an operator employing that miner would be required to provide new miner training in accordance with § 46.5, although certain new miner training taken previously could be credited towards the new miner training requirements. This is discussed in greater detail below.

A few commenters indicated their concern with recouping the substantial economic investment incurred for training if the balance of training were required to be provided within the proposed 60-day period. In justifying support for a 60- to 120-day time period, one commenter stated that the investment in training should be required closer to the time when the operator decides whether to permanently hire that miner. Another commenter, concerned with the employee turnover in the industry, made a similar argument and recommended increasing the 60-day time period to 6 months, or to stipulate that the training should be completed within six months or by the end of the new miner's probationary period, whichever comes first. Still others noted that a 60-day period would not be practical for miners who are employed intermittently. One of these commenters proposed a one-calendar-year time period for intermittent employees to complete the required 24 hours of new miner training.

For a number of reasons, the majority of commenters opposing the proposed 60-day period maintained that it was too short, especially for small operations. They either favored a 90 calendar-day time period to complete new miner training or stated that they would not object to such a requirement. Some asserted that it would be unduly burdensome for operators to schedule with outside training contractors within the proposed 60-day time period and then to provide such training several times within one year as new miners are hired. They argued that a 90 calendar-day period was preferable and that in most cases would add up to approximately 60 working days. One commenter endorsed the 90 calendar-day option since it seemed to balance the needs of employers to arrange for training and the needs of new miners to receive training in a timely manner.

Under § 46.5(c) of the final rule, you must provide training on the balance of the new miner subject areas required under the Mine Act (i.e., self-rescue and respiratory devices, and first aid review) no later than 60 days after a new miner begins work at the mine. In addition, after a miner has received the required minimum training in § 46.5(b) and (c), § 46.5(d) allows the operator up to 90 days to provide training on other subjects that promote occupational safety and health for their new miners and to count the amount of time spent on presenting that instruction towards fulfillment of the 24-hour new miner training requirement. Until the new miner receives the full 24 hours of new miner training, the miner must work where an experienced miner can observe that the new miner is working in a safe and healthful manner.

In this way, operators may select and present additional, appropriate instruction on subjects that will increase the knowledge and ability of each new miner to work safely, avoid injuries and illness, and respond to emergencies at the mine. Operators will also gain the added flexibility to spread the remainder of the 24 hours of new miner training over a longer period of time, if they wish, which should alleviate some of their concerns with scheduling training and meeting the 24-hour training requirement. At the same time, we believe this will provide necessary and meaningful training to new miners within a relatively short period after the worker accrues some work experience at the mine. We wish to reiterate that there are advantages to training new miners over a longer period of time. New miners, even if they have worked a short

period of time at the mine, will retain training information better because they will have some practical work experience and will recognize the relevance of the training material to their work duties.

As in the proposed rule, both the 60-day and 90-day periods prescribed by the final rule are calendar days and not working days. As stated in the preamble to the proposal, a deadline measured in working days would be impractical, particularly given the intermittent and seasonal work schedules of many operations. A deadline measured in working days would not only present an administrative burden to you, both for paperwork and for class scheduling, but would also make enforcement extremely difficult for us.

To minimize the likelihood that a miner would have to repeat new miner training unnecessarily, the final rule, like the proposal, allows training credit to be given where a new miner had not attained experienced miner status for training purposes but had previously completed new miner training under part 46 or 48. Under certain conditions, credit for relevant courses may be given towards the 24-hour new miner training requirement under § 46.5(a) and towards the mandatory subject requirements under § 46.5(b) and (c) for that miner. Although we solicited comment in the proposed preamble on whether the final rule should allow such crediting and how it should be addressed, only one commenter specifically responded to our solicitation and endorsed the proposed approach, without suggesting any modifications. Accordingly, we have adopted the provisions of proposed § 46.5(e) and (f) in the final rule, which we have redesignated paragraphs (f) and (g), respectively.

Under § 46.5(f) of the final rule, a miner who has completed new miner training under § 46.5 or § 48.25 within the previous 36 months but who does not have the 12 cumulative months of experience for ''experienced miner'' status is not required to repeat new miner training, with one exception. The operator is still required to provide this miner with pre-work training on the seven subjects specified in § 46.5(b) to ensure that the miner has site-specific familiarity with the mine's operations and practices before work duties commence.

Similarly, final § 46.5(g) permits an operator to credit a new miner training course completed by a miner under § 48.5 or § 48.25, provided that the course was completed within a 36-month period prior to the miner beginning work at the mine and is relevant to subject areas specified in § 46.5(b) and (c). For example, a new miner may have completed an hour of instruction at an underground mine on the statutory rights of miners and their representatives, and an hour on the use, care, and maintenance of self-rescuers or respiratory devices within the previous 36-month period. The final rule allows credit towards the 24-hour new miner training requirement, as well as toward the mandatory subject requirement, for the one hour spent on the miners' rights course. The final rule also allows credit for the one hour spent on the respiratory protective equipment course, but only if such equipment is used at the mine where the miner is currently employed.

A few commenters indicated that it was not clear when new miner training requirements would apply to a miner who is employed by an independent contractor and moves from mine to mine performing services, or to a miner employed by a production-operator who works at multiple mines operated by the same production-operator. Commenters raised this question because we defined a new miner in the proposal as ''a newly hired miner who is not an experienced miner'' (emphasis added) but did not explain what we meant by ''newly hired.'' It was our intent that new miner status and new miner training requirements would apply when two conditions were met: first, when the miner does not fit the definition of ''experienced miner;'' and second, when the miner begins employment with a new employer. We acknowledge that our use of the term ''newly hired'' in the proposed new miner definition did not expressly convey the second condition and, as explained elsewhere in this preamble, we have revised that definition. Under the final rule, the requirements of § 46.5 are triggered when a miner, who is not an experienced miner, begins employment with a new employer, not necessarily when the miner starts work at a different mine. In other words, the final rule does not require a miner to receive new miner training each time the miner moves from mine to mine, if the miner remains continuously employed by the same production-operator or independent contractor.

Section 46.6 Newly Hired Experienced Miner Training

Section 46.6 of the final rule, like the proposal, addresses training requirements for ''newly hired experienced miners'' as that term is now defined in § 46.2. Section 46.6 lists the subject areas that must be covered in training newly hired experienced miners before they begin work at the mine and no later than 60 days after they begin work. Final § 46.6 also contains less rigorous training requirements for newly hired experienced miners who are returning to the same mine after an absence of 12 months or less, and allows, under certain conditions, training credit to be given for practice of assigned tasks. As in final § 46.5, which addresses new miner training, we have used a table to set forth the final rule's requirement. This is intended to make it easier for you to determine the training you must provide to newly hired experienced miners and when the training must be provided.

We received numerous comments on proposed § 46.6, many of which addressed issues that were similar to those raised in the context of new miner training under § 46.5. One commenter raised a general issue concerning the term ''newly hired experienced miner.'' This commenter indicated that because the requirements for training under this section are triggered before and after an experienced miner begins work, the phrase ''newly hired'' is superfluous and should be deleted. The commenter also pointed out that recent amendments to part 48 eliminated use of the term ''newly employed'' in § 48.26 for similar reasons. We agree that it may be somewhat redundant to use the term ''newly hired.'' However, the final rule defines ''newly hired experienced miner'' in § 46.2 and retains the term in both the section heading for § 46.6 and the regulatory text. We have taken this approach to emphasize and make clear that this section applies only to experienced miners at the time they begin employment with a production-operator or independent contractor.

Proposed § 46.6(a) would have required you to train newly hired experienced miners in four subject areas before they begin work but did not specify a minimum amount of time to be spent on this pre-work training. One commenter who addressed this aspect of the proposal supported minimum courses of pre-work instruction as in § 48.26. Another commenter agreed that the final rule should not specify a minimum number of hours for training before the miner begins work, while another commenter recommended that emergency medical procedures be added to the list of pre-work training requirements. Several commenters strongly opposed any requirement for pre-work training for experienced miners, based on the commenters' concerns over the economic impact of such a requirement on small operations. Several commenters also maintained

that such training is not needed for workers who already have mining knowledge and experience. A few other commenters recommended that the final rule require only mine-specific hazard awareness training for experienced miners. Some of these commenters suggested that we should require only limited training on such subjects as company policies, safety and environmental response plans, hazard recognition and avoidance, and ''walkaround'' and task training.

Although section 115 of the Mine Act specifically requires that miner training regulations address training for new miners, there is no express statutory directive that we promulgate training regulations for newly hired experienced miners. However, we have concluded that experienced miners should receive orientation on the mining environment in general and be instructed in specific potential hazards at a mine before they begin work there, and the final rule reflects this conclusion.

For the same reasons outlined in today's preamble discussion on final § 46.5(b) for new miners, we are requiring training on seven subject areas before newly hired experienced miners begin work at a mine. We believe that all miners beginning employment with a production-operator or independent contractor, whether experienced or not, should receive instruction in these critical areas. Unlike final training requirements for new miners, however, final § 46.6 does not specify a minimum length of time that must be devoted to pre-work training for newly hired experienced miners. This conclusion is based primarily on the fact that experienced miners have far greater variability in their occupational experience, skills, and knowledge than untrained workers who are new to mining. The scope and amount of training needed by a newly hired experienced miner is more dependent on the occupational experience of the miner, the work duties that the miner will perform, and the methods of mining and workplace conditions at your mine. Clearly, if an experienced miner received training on a subject, such as the statutory rights of miners, within the last year, you would not need to spend as much time on that subject as you would for a new miner. Similarly, a newly hired experienced miner would not require much training on the health and safety aspects of an assigned task in which the miner has 15 years' prior experience. You are in the best position to assess the amount of training time needed to ensure the miner is adequately trained before he or she begins work at your mine, and the final rule is consistent with this. The final rule allows you to tailor the newly hired experienced miner training to the individual miners and concentrate the training on appropriate areas. For these reasons, it would be impractical and inappropriate for us to impose a minimum hour requirement for pre-work training for newly hired experienced miners.

For the same reasons as those stated in the preamble discussion of final § 46.5(b), the final rule includes instruction on emergency medical procedures as a required pre-work training subject under final § 46.6(b)(3). In addition, we have revised the final rule from the proposal so that the pre-work training subject language in final § 46.6(b)(1) and (2) for newly hired experienced miners is consistent with that in final § 46.5(b)(1) and (2) for new miners (e.g., clarified that the mine tour in paragraph (b)(1) is ''walkaround'' training, and provided examples of potentially hazardous conditions on which training may be given in paragraph (b)(2)).

The proposal would have required you to provide annual refresher training to newly hired experienced miners on an accelerated schedule—within 90 days after they begin their assigned work duties. The proposal would also have required that the refresher training cover four specified subjects.

A few commenters supported the proposed requirement that miners receive annual refresher training within the 90-day period after employment. One of these commenters stated that MSHA accident and injury data show that a significant number of deaths and injuries occur during miners' initial periods of employment. In contrast, a significant number of commenters objected to the inclusion of annual refresher training as part of the training requirements for newly hired experienced miners. Many of these commenters also opposed the 90-day deadline for the training.

One commenter who opposed the proposed requirements stated that experienced miners at mines covered by the rule should receive the same training within the same time periods as part 48 requires for experienced miners. Generally, § 48.26 requires operators to give pre-work instruction on specified subjects for all experienced miners, except miners returning to the same mine following an absence of 12 months or less. Part 48 also requires that experienced miners returning to mining after an absence of five years or more must receive this pre-work training in no less than eight hours.

One commenter recommended that the 90-day period in proposed part 46 be increased to 120 days in the final rule to provide a greater opportunity for operators to train miners during the normal cycle of refresher training and to credit the eight-hour refresher requirement with smaller training sessions. However, given the high employee turnover rate in the mines covered by the final rule, most commenters maintained that the refresher training requirement would create significant scheduling problems for small- to medium-sized mine operators, who would be forced to hold multiple refresher training sessions. Commenters stated that small operators do not have the resources to provide an eight-hour annual refresher training course to each newly hired experienced miner on a schedule that varies from the normal refresher training cycle. In addition, commenters asserted that refresher training was not necessary if the miner had received refresher training at another mine within the previous year or if miners receive initial pre-work training coupled with task training.

One commenter pointed out that it would not be efficient to require smaller and more frequent training sessions, which the commenter believed was the practical effect of the refresher training requirement. Another commenter noted that the proposed requirement would necessitate breaking up work crews on a frequent basis and assigning other workers to fill in for the absent miner being trained. This commenter believed this would have an adverse impact on safety at those workplaces.

We have carefully considered the comments submitted on proposed § 46.6(b) and agree that a requirement for eight hours of refresher training on an accelerated schedule for newly hired experienced miners would create unnecessary burdens for many operators, without providing a clear benefit to the health and safety of miners. For these reasons, the final rule does not adopt the proposed refresher training requirement for experienced miners. Instead, final § 46.6(c) provides that newly hired experienced miners must receive training on self-rescue and respiratory devices if they are used at the mine. This is in addition to the pre-work training requirements under final § 46.6(b), which must also address site-specific hazards at the mine.

We do not agree with the commenter who recommended that experienced miner training requirements in part 46 be made identical to § 48.26. As stated elsewhere in this preamble, the conditions and workforce at the mines

covered by part 46, as well as the resources available to small operations, are different from those at mines covered by part 48. The final rule requires initial training for these miners before they begin work, as well as training on additional subjects no later than 60 days after they begin work. This will ensure that these miners have the appropriate orientation and instruction before and shortly after they begin work, to prepare them to work in a safe and healthful manner at their new places of employment.

As mentioned above, the final rule requires that newly hired experienced miner training on the specified subjects be completed no later than 60 days after the miner begins work. The 60-day deadline is consistent with a similar deadline for completion of the training subjects for new miners under final § 46.5(c). This responds to some commenters who were concerned that it was confusing to have different deadlines for similar training for new miners and experienced miners. Additionally, under final § 46.4(e), operators may credit short training sessions towards experienced miner training as long as they are documented properly.

Some commenters recommended that the final rule include a provision for newly hired experienced miners similar to the proposed provision that would allow new miners to practice under the ''close supervision'' of a competent person to satisfy the requirement for training on the health and safety aspects of an assigned task. According to one commenter, there is no justification for requiring more of experienced miners if they can demonstrate through practice, to the satisfaction of a competent person, that they are familiar with the health and safety aspects of an assigned task. We agree with this commenter, and § 46.6(d) of the final rule specifically allows experienced miners to practice as part of the training on the health and safety aspects of a task, under the close observation of a competent person. As discussed in the preamble for final § 46.5(e), the final rule replaces the term ''close supervision'' with the term ''close observation.''

Final § 46.6(e) is new to the final rule and makes clear that the scope of training for newly hired experienced miners is not limited to the subjects listed in § 46.6 (b) and (c). The courses listed in these paragraphs are only minimum courses of instruction. Operators should tailor their newly hired experienced miner training program to their specific mining operations and the needs of the individual miners.

Final § 46.6(f) adopts language that was proposed in § 46.6(c). Under this provision, you are not required to provide the training specified under § 46.6 (b) and (c) if the newly hired experienced miner returns to your mine after an absence of 12 months or less. The final rule requires, that, before the miner begins work, a competent person inform the miner of changes at the mine that occurred during the miner's absence that could endanger his or her safety or health. This provision was adopted from recent revisions to § 48.26. A miner's absence of 12 months or less does not warrant requiring the miner to repeat experienced miner training at the same mine. Instead, the final rule treats the returning miner almost as though he or she never left. Consistent with this approach, the returning miner must receive any annual refresher training that was missed during his or her absence, no later than 90 days after the miner starts work. We received little comment on this aspect of the proposal. However, one commenter was concerned that miners who returned to a mine after an absence of more than 12 months would not be informed about changes at the mine that occurred during his or her absence. Although the final rule does not specifically require that a miner be informed of such changes, the final rule does require that any experienced miner returning to the same mine after an absence greater than 12 months receive newly hired experienced miner training under § 46.6. We expect that this training would cover any changes at the mine that would have an impact on the miner's health or safety.

Proposed § 46.6(d) would have allowed miners who are employees of independent contractors and who work at the mine on a short-term basis, such as drillers or blasters, to receive either newly hired experienced miner training or site-specific hazard training. We received considerable adverse comment on this aspect of the proposal. One commenter believed that operators, given the choice, would always opt to provide contractors with hazard training, not the more extensive experienced miner training under § 46.6. This commenter was concerned that contractors would receive little training under part 46. In fact, under the final rule, independent contractor employees who are ''miners'' must receive comprehensive training, either as ''new miners'' under § 46.5 or as ''newly hired experienced miners'' under § 46.6. These workers must also receive appropriate task training under § 46.7, annual refresher training under § 46.8, and site-specific hazard awareness training under § 46.11.

Several commenters correctly pointed out that these contractor employees are not ''newly hired'' because they are still employed by the same employer, in this case, the independent contractor. Commenters contended that these miners should receive only site-specific hazard awareness training for each mine where they work and not be required to repeat experienced miner training under § 46.6 each time they move from mine to mine. For the same reason, other commenters requested that we clarify that miners who move among mines operated by the same company are not ''newly hired experienced miners'' for training purposes. Commenters noted that the proposed rule was unclear on whether the event that triggers newly hired experienced miner training is the miner beginning work at a new mine or the miner beginning employment with a new employer.

We agree that it is unnecessary for miners to receive newly hired experienced miner training whenever they move from one mine to another, while remaining employed by the same employer, whether production-operator or independent contractor. In response to these comments, the final rule includes a definition of the term ''newly hired experienced miner,'' and provides that experienced miners who move from one mine to another, such as drillers and blasters, but who remain employed by the same production-operator or independent contractor are not considered newly hired experienced miners.

You should be aware that final § 46.11, which addresses site-specific hazard awareness training, requires you to provide miners who move from one mine to another mine while remaining employed by the same production-operator or independent contractor with site-specific hazard awareness training for each mine.

Section 46.7 New Task Training

Section 115(a)(4) of the Mine Act provides that:

> * * * any miner who is reassigned to a new task in which he has had no previous work experience shall receive training in accordance with a training plan approved by the Secretary . . . in the safety and health aspects specific to that task prior to performing that task.

This section of the final rule implements this statutory provision by requiring operators to provide miners with training for new tasks and new health and safety information concerning assigned tasks before the miners perform the tasks. This section

generally adopts the proposed provisions, but includes several changes from the proposal in response to comments.

In developing final § 46.7, we have attempted to address the comments received and to develop practical requirements for effective health and safety training programs at the mines covered by this rule. Although § 46.7 will allow you greater flexibility in the implementation of new task training to fit your specific mining operations and workforce, we have determined that the new requirements will not reduce protection afforded to surface nonmetal miners under similar standards in existing part 48. While the approach taken under part 46 may be less structured and more flexible than part 48, the ultimate result will be the effective health and safety training of surface nonmetal miners who are assigned new tasks or whose assigned tasks are modified and the modification has some impact on the health and safety risks encountered by the miner.

The task training requirements in the final rule are intended to reduce the likelihood of accidents resulting from a miner's lack of knowledge about the potential hazards of a task. This section requires operators to provide miners with important health and safety information before they perform a new or modified task. This will ensure that miners are prepared to protect themselves and to avoid endangering other workers at the mine.

Many commenters supported the task training requirements in the proposed rule. These commenters stated that employees need to be aware of the hazards and the risks associated with the jobs or tasks that they perform and be familiar with the systems, tools, equipment, and procedures required to control, reduce, or eliminate hazards. Several commenters noted that proper task training is the key to preventing injuries and fatalities.

Some commenters recommended that new task training requirements be patterned after the requirements in part 48. Under part 48, a program for training on certain enumerated tasks must include instruction, in an on-the-job environment, in the health and safety aspects and safe operating procedures of the task; supervised practice during nonproduction times is also required. Other commenters were supportive of the performance-oriented requirements in the proposed rule.

The final rule, like the proposal, does not include detailed requirements for task training. This is intended to allow you to design task training programs that are suitable for your workforce and your operation. We expect that effective new task training will include, at a minimum, instruction in the elements of the task, including hands-on training, and an explanation of the potential health or safety hazards associated with the task and ways of minimizing or avoiding exposure to these hazards.

Many commenters stated that effective task training includes a combination of different types of training, such as classroom instruction, demonstration by the competent person, practical hands-on training, and evaluation of the miner's ability to apply the training in the workplace. We agree with these commenters, and the flexibility provided in the final rule is intended to allow each operator to design and implement an effective task training program that is suitable for each miner.

Final § 46.7(a) and (b) adopt the requirements of proposed § 46.7(a). The requirements in these two paragraphs were included in the proposal in a single paragraph but have been separated into two paragraphs in the final rule for clarity.

Section 46.7(a) of the final rule requires you to provide any miner who is reassigned to a new task in which he or she has no previous work experience with training in the health and safety aspects and safe work procedures specific to that new task. This training must be provided before the miner performs the new task. This is adopted with a minor change from the proposed rule.

The final rule provides that task training must be provided to any miner who is ''reassigned to a new task.'' The proposal would have required task training for a miner who was ''assigned'' to a new task. This terminology is used in the final rule in response to commenters who indicated they were confused about the relationship between new task training requirements in this section and new miner training requirements in proposed § 46.5. This language is intended to clarify that task training requirements in this section supplement the new task training-referred to as ''instruction in the health and safety aspects of assigned tasks''—that miners must receive as part of new miner training and newly hired experienced miner training under §§ 46.5 and 46.6. This change is made in response to several commenters who pointed out that operators must provide miners with instruction in ''health and safety aspects of the task'' as part of the 24 hours of new miner training. These commenters questioned what the distinction was between that aspect of new miner training and task training under this section. Another commenter observed that the proposed rule seemed to suggest that new miner training must include training in the health and safety aspects of all tasks that he or she will perform in the first year of employment. This commenter emphasized that task training is an ongoing effort, conducted each time a miner will perform a task for the first time.

Task training should in fact be an ongoing process, and neither the proposed rule nor the final rule requires a new miner to receive instruction, as part of new miner or newly hired experienced miner training, in every task he or she will perform in the first year. We agree that the final rule should clarify the relationship between task instruction for new miners under § 46.5 and for newly hired experienced miners under § 46.6, and new task training under § 46.7. Training in the health and safety aspects of tasks for new miners under § 46.5 and for newly hired experienced miners under § 46.6 is the same type of training as new task training under this section. Newly hired miners must receive task training in the tasks they will perform, either as part of new miner training or newly hired experienced miner training, as appropriate. After miners have received this initial training and they are ''reassigned'' to a new task (from the task that they were initially assigned and for which they already received task training), final § 46.7(a) requires task training in that newly assigned task before the miner performs it.

Final § 46.7(b) requires you to provide task training if a change occurs in a miner's task that affects the health and safety risks encountered by the miner. This requirement has been adopted with some change from the proposed rule. The final rule clarifies that a requirement for task training is triggered by changes that affect the health and safety risks encountered by the miner, rather than by a change in the assigned task. This means that task training is required whenever any change in the task could impact the health and safety conditions under which the miner works.

Many commenters questioned what type of change in a task would trigger the requirement for task training. Although it would be impractical to compile a comprehensive list of such changes, we can provide a few examples. Task training is intended to ensure that miners receive new training before they are exposed to new health and safety hazards, so that they can avoid, control, or eliminate potential hazards as they perform their job. Such a change could involve a modification

to a piece of equipment that introduces new potential safety hazards for the miner that operates the equipment. For example, the controls on a loader may be modified, causing the loader to respond more quickly. The miners who operate this equipment must be informed of the modifications to the controls and must be given task training that allows them to become familiar and comfortable with the new controls before they begin to use the loader for work. Another example would be a change to a piece of equipment that increases the occupational noise or dust exposure levels for the miner who operates it. Before the miner is exposed to the increased noise or dust hazards, the operator must ensure that the miner is informed of the new health concerns and receives instruction in how to avoid, control or eliminate the new health concerns. In any case, if an operator is in doubt as to whether a change warrants additional task training, the operator should opt in favor of providing the training.

Final § 46.7(c) provides that you are not required to provide task training under paragraphs (a) and (b) to miners who have received training in a similar task or who have previous work experience in the task, and who can demonstrate the necessary skills to perform the task in a safe and healthful manner. The final rule, unlike the proposal, requires you to observe that the miner can perform the task in a safe and healthful manner to determine whether the miner needs task training. This is intended to prevent unnecessary or duplicative training, while ensuring that miners are adequately trained for unfamiliar tasks. For example, if an equipment operator is already trained in the health and safety aspects of loader operation, has been evaluated, and has demonstrated the ability to perform the duties of a loader operator, there is no reason to require the equipment operator to repeat task training.

In the preamble to the proposed rule, we indicated that we intended that task training would not be required for miners who have performed a task before and who are able to safely perform the task. We noted that you must first determine that task training is not necessary, typically by having the miner demonstrate that he or she is able to perform the task safely. A number of commenters questioned this statement in the preamble, believing that such a requirement would be too restrictive. These commenters were of the opinion that a miner's experience, references, or other information could provide a satisfactory basis for a conclusion that task training is not required. These commenters recommended that the final rule clarify that a demonstration is not required in all cases to determine whether task training is needed and that the basis of the determination is within the discretion of the operator.

We do not agree with these commenters. Although a miner may be able to document prior work experience, this does not ensure that the miner has retained sufficient expertise in the task to make task training unnecessary. Under part 48, task training is not required if the miner has either been trained in the task or has performed the task, and has demonstrated safe operating procedures for the task within the last 12 months. We agree with this approach, and the final rule reflects our conclusion that an actual demonstration of a miner's ability to perform a task safely and healthfully will guarantee that miners who need task training will receive it. A paper review would not adequately ensure that the miner has the current ability and knowledge to safely perform the task. Operators would also be able to evaluate whether training is needed on elements of the task that may be site-specific. For example, a miner who is reassigned to operate a particular piece of mobile equipment may have already operated the same type of equipment at another mine. However, the terrain of the area where the equipment will be operated at the current mine may warrant additional task training to ensure that the miner can safely operate the equipment in the new terrain. For these reasons, the final rule specifies that a miner must make such a demonstration before an operator can determine that task training is not needed. In making this determination, you must observe the miner performing the task to verify that the miner has the requisite knowledge and skills to perform the task safely.

The requirements of final § 46.7(d) have been adopted from the proposal with some changes and provide that practice under the close observation of a competent person may be used to satisfy task training requirements if hazard recognition training specific to the task is given before the miner performs the task. The proposal would have allowed practice under the ''close supervision'' of a competent person to be used to fulfill task training requirements. Commenters generally supported the concept of permitting hands-on practice to fulfill the requirement for task training. Commenters stated that very effective and safe training in a new or modified task can include the miner practicing the task while under the close observation of a competent person, who instructs the individual in how to perform the task in a safe manner. However, a number of commenters objected to the restrictive nature of the requirement that the practice had to be ''under the close supervision of a competent person.'' Some commenters were concerned that in cases where the competent person was a fellow miner, the competent person would not have the authority to supervise or direct the work of the miner receiving the training. These commenters suggested a term other than ''supervision'' be used to describe the monitoring of the performance of the task. Other commenters took issue with the term ''close supervision'' as well as with the explanation of the requirement in the preamble to the proposal. These commenters believed that ''close supervision'' was not practical, because it suggested that the undivided attention of the person providing the training was necessary. Some commenters recommended that the person providing the training be the judge of how closely the miner needs to be supervised, depending on the person's understanding of the miner's knowledge and experience and of the risks involved in the task.

The final rule, in response to commenters, allows practice under the ''close observation of a competent person'' to be used to fulfill some of the task training required by this section. This allows the miner to gain experience in the task and to learn how to avoid the hazards presented by the performance of the task in the surrounding environment. ''Close observation'' means that the competent person is in the immediate vicinity of the miner and is watching the actions of the miner being trained to make sure that the miner is performing the task in a safe and healthful manner. The nature of the task will determine the degree of attention that is needed, and the level of observation should be commensurate with the risks inherent in the task being performed. The competent person who is observing the miner should also be assessing the miner's proficiency in performing the task, as part of the training itself as well as the competent person's evaluation of whether the training is effective.

The final rule includes the additional requirement that the miner must be provided with hazard recognition training for the task before he or she begins to practice the task. This is similar to the provision for practice for new miners in final § 46.5(e). Without a requirement for the miner to receive this important information, the miner would learn by trial and error, an approach that

relies on mistakes (which can often involve accidents, injuries, and fatalities) for learning to occur. For example, if you assign a miner to operate a loader for the first time, you should explain that the loader can be tipped over much more easily than other vehicles the miner may have operated. The potential for the loader to tip over could be explained with the use of photographs, illustrations, or graphs. This tip-over potential cannot be safely taught through hands-on training, because it would require the miner to tip over the loader.

The most effective training program will include a combination of training methods and be flexible enough to apply in different work environments and for miners with varying levels of education and work experience. Classroom training is one way that preliminary instruction can be provided as a prelude to practical hands-on training exercises.

Final § 46.7(e), like the proposal, allows you to credit task training provided under this section toward new miner training, as appropriate. Many commenters supported this aspect of the proposal, and it has been adopted unchanged into the final rule. We envision that crediting would occur when a new miner's work assignment changes during the first 90 days of employment. The miner would have received training in the health and safety aspects of assigned tasks before he or she begins work under § 46.5(b)(4). If the miner is reassigned to a new task within the initial 90-day period, training in the new task given to comply with § 46.7 could be credited toward the 24 hours of new miner training.

Some commenters recommended that the final rule allow task training to be credited to newly hired experienced miner training. However, we have not included a specific provision for this in the final rule. Because the final rule does not specify a minimum number of hours for newly hired experienced miner training, there is no need to explicitly provide for task training to be credited toward newly hired experienced miner training.

We solicited comment in the preamble to the proposal on whether the final rule should allow task training to be credited toward annual refresher training requirements. Although some commenters supported credit for task training to satisfy annual refresher training, other commenters strongly opposed it. These commenters stated that miners who were trained on a number of different tasks during the course of a year could accumulate enough hours of task training to satisfy the annual refresher requirement, yet the miner would not have received refresher training on other hazards and important health and safety concerns.

We agree with those commenters who recommended against allowing task training to be credited towards annual refresher training. Task training is designed to ensure that the miner can perform a new or modified job in a safe manner and may only be relevant to a small portion of the miner's work at the mine. In contrast, refresher training is intended to reinforce previous training and enhance the miner's general knowledge and skills so that he or she can work in a safe and healthful manner at all times. For these reasons, the final rule does not allow crediting of task training toward the annual refresher training requirements.

Finally, one commenter recommended that the final rule specify that task training must be conducted by a person who is experienced in the task. The final rule does not adopt this specific recommendation, because the final rule requires that training must be given by a ''competent person,'' defined as a person with the ability, training, experience, or knowledge to provide training to miners in his or her area of expertise. We believe that this definition adequately addresses the necessary level of expertise, and, for these reasons, the requirement recommended by the commenter is not needed and has not been adopted in the final rule.

Section 46.8 Annual Refresher Training

This section of the final rule addresses requirements for refresher health and safety training for miners. Section 115(a)(3) of the Mine Act requires all miners to receive at least eight hours of refresher training no less frequently than once every 12 months. The Act does not specify the subject areas that must be covered as part of this training. In the **Federal Register** notice announcing the public hearings for the proposed rule, we requested comment on whether the final rule should require that specific subject areas be covered by refresher training, and if so, what subjects should be required.

Commenters generally supported the concept of annual refresher training. Commenters recognized that refresher training provides miners with an important review of information that helps them to minimize the health and safety risks at their workplaces. The annual refresher training requirements in the final rule are intended to reduce the likelihood of accidents and illnesses by reinforcing previous training and enhancing miners' ability to work in a safe and healthful manner.

The final rule takes a performance-oriented approach to annual refresher training to allow operators, particularly small operators, to direct their training resources to subjects that are relevant to their workforce and operations. The proposed rule would have required that you provide each miner with no less than eight hours of refresher training at least once every 12 months. A few commenters believed that eight hours of training every year was an excessive requirement for many small operations and that this requirement appears to assume that all mining operations are large and complex. Another commenter recommended that the final rule require refresher training every 24 months, not every 12 months.

The Mine Act is very specific in its requirement that miners receive no less than eight hours of refresher training at least every 12 months. We therefore have no discretion to adjust or reduce these minimum requirements.

Several commenters maintained that the language in the proposed rule suggested that miners must receive all of their refresher training in one eight-hour session. One commenter stated that eight hours of refresher training on one day a year, or even over several days within a short period of time leaves a lot to be desired. This commenter favored shorter training sessions over a longer period of time. A number of commenters recommended that the final rule make clear that miners may receive refresher training in shorter sessions over the 12-month period.

We agree that providing refresher training in shorter installments over 12 months is an appropriate way for operators to satisfy refresher training requirements under the final rule. We did not intend the language of the proposed rule to leave you with the impression that such an approach would be unacceptable. We have attempted to clarify this in the final rule. The final rule does not adopt the language of the proposed rule that requires refresher training to be completed ''once every 12 months.'' Instead, under final § 46.8(a)(1), you must provide each miner with no less than eight hours of annual refresher training no later than 12 months after the miner begins work at the mine, or no later than March 30, 2001, whichever is later. Thereafter, final § 46.8(a)(2) requires you to provide each miner with eight hours of training no later than 12 months after the previous annual refresher training was completed. Under the final rule, you must provide miners at your mine with annual refresher

training no later than 6 months after the rule has gone into effect, unless the miner is newly employed at the mine. In that case, the miner has 12 months from the date of employment to complete the first installment of refresher training.

The deadline of six months after the rule's effective date for completion of annual refresher training is intended to ensure that there is no question as to when miners must receive the first installment of annual refresher training under the final rule. We considered allowing one year after the effective date for annual refresher training to be completed, which would be two years after publication of the final rule in the **Federal Register**. We determined that a one-year deadline beyond the effective date would result in a significant delay in miners receiving this training. We believe that it is important for those miners who may not have been receiving regular refresher training to be provided with this training as soon as practicable. However, we recognize that many operators need time to prepare for compliance with the final rule. For these reasons, we have allowed six months beyond the effective date for completion of the first eight-hour installment of refresher training.

Under the final rule, you may provide annual refresher training in one eight-hour session once every 12 months. You may also satisfy the refresher training requirement by providing miners with smaller blocks of training over the entire year, so long as the total training time adds up to at least eight hours.

Some commenters stated that the 12-month deadline should begin to run only after a miner has completed 24 hours of new miner training or an experienced miner has completed newly hired experienced miner training. For example, if a new miner begins work on the first of January 2001 and completes new miner training on March 31, 2001, these commenters believe that the deadline for the miner to complete eight hours of annual refresher training should be March 2002 rather than January 2002. Other commenters pointed out that such an approach would unnecessarily delay the annual refresher training for a new miner. We agree with commenters who were concerned about a delay in miners receiving annual refresher training, and we are not persuaded by commenters recommending that the 12-month period be extended, particularly for new miners in their first year at the mine. Timely refresher training serves to reinforce the initial training received by new miners, who are more vulnerable to accidents and injuries than experienced miners. For these reasons, final § 46.8(a)(1) makes clear that all miners, whether new miners or newly hired experienced miners, must receive their first eight-hour installment of refresher training no later than 12 months after they begin work at the mine.

The proposed rule would have required refresher training to cover instruction on changes at the mine that could adversely affect the miner's health and safety. Under the proposal, mine operators would have discretion to select other training topics, although the proposal did include a list of suggested training topics.

Most commenters believed that the subjects covered in refresher training should not be mandated, but that operators should instead have the discretion to select subjects that are relevant to the health and safety needs of the miners at their particular mining operation. Several commenters indicated that they believed this flexibility could only enhance worker safety, not detract from it. Many of these commenters indicated that training subjects could vary from year to year, based on such factors as the mine's accident and injury experience.

Final § 46.8 (b) and (c) generally adopt the requirements of proposed § 46.8(b). Section 46.8(b) of the final rule requires you to provide annual refresher training on changes at the mine that affect the health and safety risks encountered by the miners in performing their work. Commenters generally supported this requirement in the proposed rule. However, some commenters were concerned that information on changes at the mine should be provided to the miners as soon as the operator becomes aware of the change or before the operator implements a planned change. These commenters stated that this information should not be communicated to miners on a 12-month rotation. We agree with these commenters that operators should convey such information to miners as soon as possible. However, this information must be reiterated during refresher training to ensure that miners are adequately informed of changes in conditions that could affect their health or safety.

Commenters generally recommended that we provide examples in the preamble to assist operators in understanding their compliance responsibilities. Some commenters questioned what type of changes would fall within the requirements § 46.8(b) and must be addressed as part of refresher training. One example would be if you plan to change the traffic patterns at your mine. Other examples include the introduction of new or retrofitted equipment into the work environment, or a new blasting schedule.

Final § 46.8(c) clarifies that refresher training must also address other health and safety subjects that are relevant to mining operations at the mine. The proposal would simply have provided that training may include instruction on certain subjects and listed several examples. The final rule also includes a list of possible subjects, indicating that training may address these subjects. The language in the final rule has been amended slightly to clarify that the additional subjects are recommended but are not mandatory.

In the preamble of the proposed rule, we stated that we expected that you would carefully select the subjects covered in refresher training at your mine, to ensure that your miners received practical and useful instruction that effectively addresses the health and safety conditions at your operation. We requested comments on whether the final rule should include more detailed requirements or guidance for refresher training programs. In addition, we specifically requested comments on whether the final rule should require instruction on particular topics, similar to part 48, and if so, which subjects should be included.

Several commenters stated that, although general guidelines for possible training subjects were a good idea, the final rule should allow operators flexibility in choosing subjects. By allowing operators to identify the subjects to be covered, the relevance of the training to the work environment will be increased. The commenters stated that refresher training should cover subject areas relevant to the safety problems at the mine. One commenter suggested that the subjects listed in the proposal, which were derived from topics listed in part 48, should be covered at least once every three years as part of refresher training. Other commenters stated that the final rule should take the approach of part 48 and include a list of required courses of instruction. Several commenters recommended that the final rule list the courses included in part 48 and indicate that the courses would be mandatory ''where applicable.'' These commenters stated that the additional language would allow operators to forgo course subjects that are not applicable to their operation, giving them more time for other relevant subjects. Other commenters stated that a review of health and safety standards should be included in annual refresher training.

We are persuaded by commenters' recommendations that the final rule afford operators flexibility in selecting subjects for refresher training. Refresher training that is tailored to address subjects relevant to the mine's methods of operation, equipment, accident and illness history, etc., can be extremely effective. The final rule reflects this determination and provides a performance-oriented approach that allows you to implement a refresher training program that will provide the most health and safety benefits to your miners.

The performance-oriented approach to annual refresher training in the final rule is designed to allow you to develop and implement the type of training that will be most beneficial for your miners. We believe this approach will enable all production-operators and independent contractors to design and implement an effective annual refresher training program that maximizes the impact of the required training for their miners.

The list of recommended subjects contained in final § 46.8(c) includes subjects that were not included in the proposed rule. The final rule references subjects that address specific types of equipment and work activities that have been involved in the most serious accidents in the mines covered by the final rule. This list is derived from our analysis of the fatal, disabling, and lost time injury data from 1991 to 1998 for the mines covered by this rule. For example, the final rule recommends that refresher training address the hazards of mobile equipment, such as haulage trucks, service trucks, tractors, and front-end loaders, because that type of equipment has been involved in the most number of accidents. Equipment that follows mobile equipment in the greatest number of accidents includes conveyor systems; cranes; crushers; excavators; and dredges. We recommend that annual refresher training address the safe operation of this equipment if you use it at your mine or, if you are an independent contractor, your employees operate the equipment or are exposed to its hazards.

The final rule includes other recommended training subjects that we identified based on our analysis of the injury data, including maintenance and repair; material handling; fall prevention and protection; and machine guarding. We intend to continue to analyze the accident and injury data to identify areas that should be covered as part of refresher training. In that way, we can develop relevant course materials that will be useful in the training given under the final rule.

One commenter stated that it takes at least eight hours to provide comprehensive first aid training. This commenter advocated a separate requirement for first aid for all miners and recommended that the eight hours for annual refresher training be focused on other subjects. We acknowledge that comprehensive first aid training can require a significant amount of time, often at least eight hours according to commenters. However, for purposes of annual refresher training, the final rule allows you to provide miners with a review of first aid subjects, rather than extensive comprehensive first aid training. Further, the requirements of the final rule are minimum requirements, and the final rule does not prevent you from providing miners with more than the mandated eight hours of health and safety refresher training each year. In fact, we encourage you to provide as much training as possible to miners to enhance their abilities to perform their assigned duties without endangering themselves or others.

A number of commenters raised the issue of whether the final rule should impose a minimum duration on refresher training sessions, such as 15 minutes or half an hour. This issue is also relevant to other types of training and is discussed in detail in the preamble discussion of final § 46.4(e).

Several commenters had general questions about the application of refresher training requirements. One commenter stated that he provides annual refresher training during a scheduled maintenance shutdown that occurs each year in April or May. He indicated that he would like to continue to provide training in this manner, even though miners could receive annual refresher training 13 months after the previous year's training. Our interpretation of the requirements of the Mine Act would not allow such a training schedule. Miners must receive annual refresher training no later than 12 months after the previous annual refresher training was completed, as required by final § 46.8(a)(2).

Another commenter stated that truck drivers that come to the mine to deliver or haul away materials should not be required to receive eight hours of refresher training every year. This commenter indicated that the drivers spend 10 minutes loading their trucks at the mine site, and one to two hours delivering the load, for a total of about one hour per day spent at the mine site.

Although we are unable to give a definitive answer on this scenario since we may not have all of the facts, we can provide a general response. Delivery and customer or haul truck drivers, such as those described by the commenter, are not included in the definition of a ''miner'' in the final rule. Because the annual refresher training requirements apply to miners, the drivers described by the commenter would not be considered miners, and you would not be required to provide them with eight hours of refresher training. However, you must provide the drivers with site-specific hazard awareness training under § 46.11 of the final rule.

Section 46.9 Records of Training

This section of the final rule requires you to record and certify that miners have received health and safety training under this part. The final rule adopts many of the proposed provisions, but includes several changes to address commenters' concerns.

Like the proposal, the final rule requires production-operators and independent contractors to record and certify the training provided to miners and to provide miners with a copy of their training certificates at the completion of the training. Copies of a miner's training records and certificates must be provided to the miner at the termination of employment, upon the miner's request. The final rule adopts the flexible approach of the proposal and does not require that these records and certificates be maintained on a prescribed form, but allows operators the option of using alternate forms or methods to MSHA Form 5000–23 for making and keeping these records. The final rule, like the proposal, also allows you to maintain training records and certificates away from the mine site, if you have the capability of producing them upon request. In response to comments, the final rule specifies when records of training must be made, certified, and provided to miners. Finally, the record retention period under the final rule has been changed from the proposal and responds partially to commenters who recommended that the final rule adopt the record retention requirements of part 48.

Section 46.9 of the final rule, unlike the proposal, references both ''training records'' and ''training certificates.'' This terminology recognizes that there is a distinction between a record and a certificate. Operators are required to make records of miner training at specified intervals, but the final rule does not require that certain records be signed and certified by the person responsible for training at the mine until some time after the record has been made. For example, an operator who provides miners with one hour of

annual refresher training every month must record the training after each session, but is not required to certify the record until miners have received the full eight hours of refresher training. A training ''record'' made under final § 46.9(c) becomes a training ''certificate'' after the training has been certified under § 46.9(b)(5). To make clear that the provisions of final § 46.9 apply to both ''records'' and ''certificates,'' the final rule includes both terms, where appropriate.

A number of commenters addressed the issue of recordkeeping. Many commenters supported the flexibility in recordkeeping allowed by the proposal, stating that recordkeeping requirements beyond those included in the proposal would be particularly excessive and onerous for small operators. Other commenters believed that the proposed recordkeeping requirements were too burdensome for small operators. One commenter recommended that recordkeeping requirements under the final rule be flexible and recognize that the offices of many small operators are their homes, and these operators typically do not maintain their records electronically.

Final § 46.9(a) requires you to record and certify that each miner has received training required under this part. Consistent with the Mine Act requirement that certifications be kept on a form approved by the Secretary of Labor, the final rule provides that training records and certificates may be kept on MSHA Form 5000–23, which is the approved form used by operators under part 48 regulations to certify that training has been completed. If you choose to use Form 5000–23, you should be aware that the form was not specifically designed for use under part 46. For that reason, you should take care to include on that form all the information required by part 46. However, under the final rule, as under the proposal, you may also use any other format that contains the minimum information listed in paragraph (b) of this section.

Commenters generally supported the proposal allowing operators the flexibility to choose the appropriate form for their training records. However, one commenter strongly opposed the use of MSHA Form 5000–23, stating that the form is confusing and fraught with ambiguity. This commenter recommended that Form 5000–23 be revised, and until that time it would not be technically feasible to use the form. Another commenter recommended revision of Form 5000–23 to make it more appropriate for the recordkeeping requirements of part 46 and also easier for small operators to use.

Although we do not agree that Form 5000–23 is so confusing as to be unusable, the final rule does not mandate the form's use. An operator may elect not to use that form, and instead may adopt or develop any other form, so long as the information required by final § 46.9(b) is included on the form.

The requirements of final § 46.9(a) allow those of you who may already be using MSHA Form 5000–23 for recording training to continue to use this form under the final rule. However, the final rule allows operators, particularly small operators who are less likely to have formal health and safety programs at their mines, the flexibility to use other formats that are compatible with the information requirements specified in paragraph (b). This provision has been adopted unchanged from the proposed rule. Under this paragraph, a form is approved by us if it contains the information listed in paragraphs (b)(1) through (b)(5), including—

(1) The printed full name of the person who received the training;

(2) The type of training that was received, the duration of the training, the date the training was received, and the name of the competent person who provided the training; and

(3) The name of the mine or independent contractor, MSHA mine identification number or independent contractor identification number, and the location where the training was given.

In response to comments, the final rule requires the ''printed full name'' of the person who received the training, but does not specifically require the first, middle, and last name, as the proposal would have required. One commenter was concerned that many miners used shortened forms of proper names or other nicknames to identify themselves and that some people never go by their first names and middle initials. Another commenter stated that the final rule should allow the use of the name on a miner's payroll record, even though it may not be the miner's full given name. These commenters believed that requiring that training records include all three given names was unnecessary and could result in confusion. In response, the final rule does not specifically require that the record include the trainee's first, middle, and last name. Instead, the miner's ''full name'' must be included. Our expectation is simply that the name indicated on the training form allows ready identification of the miner who received the training.

Final § 46.9(b)(3) requires, where appropriate, the training record to include the name of the independent contractor and MSHA independent contractor identification number. This requirement was not included in the proposal but has been added to the final rule to be consistent with the fact that independent contractors with employees who are miners as well as production-operators are responsible for training for their miner employees.

Section 46.9(b)(4) of the final rule, like the proposal, also incorporates the provisions of section 115(c) of the Mine Act and requires that the form include the statement, printed on the form in bold letters and in a conspicuous manner, that ''false certification is punishable under section 110(a) and (f) of the Federal Mine Safety and Health Act.'' Section 110(a) of the Mine Act provides that an operator who violates a mandatory standard or any other provision of the Act shall be assessed a civil penalty of up to $55,000. Section 110(f) of the Act provides that a person who makes a false statement, representation, or certification in records or other documents filed or maintained under the Act may be subject to criminal prosecution and fined up to $10,000 and imprisoned for up to 5 years.

Under § 46.9(b)(5), the form must also include the statement ''I certify that the above training has been completed,'' signed by the person designated in the MSHA-approved training plan as responsible for health and safety training. This has been adopted without change from the proposal.

In the proposed preamble, we solicited comment on whether miners should be required to sign their training certificates and whether other persons besides the person responsible for training at the mine should be allowed to sign the certificates. In response, one commenter stated that miners should not be required to sign certificates, but that operators or the operator's designee should be allowed to make the certification. Another commenter stated that the operator is ultimately responsible for providing training and should be responsible for certifying that training has been received.

The final rule adopts the proposed requirement that the person designated by the operator as responsible for health and safety training certify that the training has been received as indicated in the record. Although the competent person who provides the training would have the knowledge to certify that the training reflected on the certificate was

provided, we agree with commenters who recommended that the operator or the operator's designee be responsible for training certification. For these reasons, the final rule provides that the individual who oversees health and safety training at the mine must verify and certify that required training has been provided.

The final rule does not require our approval of your recordkeeping format. Your records must simply include the minimum information listed in the final rule. This allows operators to tailor their methods of recordkeeping to their particular operations. We expect that many operators will use a computer-based recordkeeping system. Others may choose to keep certifications on MSHA Form 5000–23. Still others whose records are not computerized may choose to use another paper-based form.

It should be noted that the information required under the final rule differs from the information called for on MSHA Form 5000–23. In some cases, the final rule requires more information than the form, in some cases, less. The required information will allow us to determine compliance with the training requirements. The information will also enable miners and their representatives to determine that necessary training has been provided for every miner.

We will be available to assist you in determining whether alternate record formats are suitable for use in complying with the final rule. We will also provide MSHA Form 5000–23 training certificate forms upon request, for those of you who choose to use them in complying with part 46. You may also obtain copies of Form 5000–23 from out Internet Home Page at www.msha.gov.

The requirements of final § 46.9(c)(1) through (5) have been added to the final rule in response to commenters who questioned when records and certificates of training must be made. One commenter observed that the proposed rule did not recognize the difference between a training record and a certificate of training and that requiring training certification and distribution of copies of the certificates for all attendees after a brief safety meeting would result in an unnecessary recordkeeping burden. This commenter stated that the time needed to issue the training certificates in such a situation could easily exceed the amount of time spent providing the training. Another commenter stated that the final rule should require operators to issue training certificates to miners only upon completion of the entire training program, and not each time incremental training is provided. Still another commenter recommended that the final rule should allow the maintenance of periodic training records in a form consistent with how the training records are kept and that certification should only be required for training programs that have been completed.

The proposed rule did not clearly indicate when operators must make records of miner training and when they must provide training certificates to miners. Some of the comments on the proposed recordkeeping requirements led us to conclude that the proposal was not sufficiently clear on the timing of these requirements and that the final rule must detail the deadlines for both recordkeeping and certification, so there is no question as to when operators must take these actions. The final rule's recordkeeping requirements are also designed to allow us to verify that training has been received by miners by the appropriate deadline. Although these provisions are relatively extensive, we believe that this level of detail is needed to avoid confusion and assist operators in complying with their training responsibilities.

Final § 46.9(c)(1) clarifies when operators must make a record of new miner training under the final rule. A record of new miner training must be made under § 46.9(b) no later than—

(1) When the miner begins work at the mine;

(2) 60 days after the miner begins work at the mine; and

(3) 90 days after the miner begins work at the mine, if applicable.

This means that you must make a record of new miner training that includes the information required in paragraphs (b)(1) through (b)(4) no later than these specified intervals. This will allow us to verify that a new miner has received required training before he or she begins work and also that training in all required subjects has been received by the 60-day deadline. Additionally, operators who provide training to new miners in other subjects to make up the 24 hours of required training must document this training no later than 90 days after the miner begins work. For example, if an MSHA inspector wants to verify that a new miner working at a mine has received all required pre-work training, the inspector will inspect the records required for new miner training under paragraph (c)(1)(i). However, the final rule does not require operators to certify these records and provide them to miners until a miner has completed new miner training. Specifically, final § 46.9(d)(1) requires operators to certify new miner training records when the full 24 hours of training has been completed and also to provide miners with copies of their certificates at that time.

The final rule takes a similar approach in § 46.9(c)(2) for records of newly hired experienced miner training under § 46.6 and requires operators to make records of training no later than—

(1) When the miner begins work at the mine; and

(2) 60 days after the miner begins work at the mine.

Final § 46.9(d) requires newly hired experienced miner records to be certified and provided to miners after the miners have completed all of the newly hired experienced miner training. This is similar to the requirement for certification of new miner training.

Final § 46.9(c)(3) requires operators to record new task training upon completion of the training, and final § 46.9(c)(4) requires operators to make a record of annual refresher training upon completion of each training session. Consistent with the other types of training already discussed, records of annual refresher training are not required to be certified and provided to miners until the miner has received all eight hours of annual refresher training. For example, if an operator satisfies refresher training requirements for miners by providing a one-hour health and safety talk once a month, the operator must document each one-hour session upon its completion under § 46.9(c)(4). However, operators are not required to ensure that these records are certified and copies provided to miners under § 46.9(d) until after miners have received the full eight hours of training.

Final § 46.9(c)(5) provides that a record must be made upon completion of site-specific hazard awareness training provided to miners under § 46.11. This clarifies the intent of the proposal, reflected in the preamble, that records of site-specific hazard awareness training would be required only for ''miners,'' not for those persons at the mine site who do not fall within this definition. Because it was obvious that this distinction was not clear to many commenters, we have included this provision in the final rule. Additionally, final § 46.9(i) further clarifies this issue, which the preamble addresses in greater detail below. You must make a record of training under paragraphs (c)(1) through (c)(5) as prescribed in the following table:

RECORDKEEPING DEADLINES FOR TRAINING PROVISIONS

Type of training	When the record of training must be made
New miner training	No later than when the miner begins to perform work at the mine; 60 calendar days after the miner begins work at the mine, if applicable; and 90 calendar days after the miner begins work at the mine, if applicable.
Newly-hired experienced miner training	No later than when the miner begins to perform work at the mine; and 60 calendar days after the miner begins work at the mine, if applicable.
New task training	Upon completion of new task training.
Annual refresher training	After each session of annual refresher training.
Site-specific hazard awareness training	Upon completion by miners of site-specific hazard awareness training.

Final § 46.9(d)(1) through (d)(5), as already discussed, require operators to ensure that all records of training under paragraphs (c)(1) through (c)(5) have been certified under paragraph (b)(5) and a copy provided to the miner at the completion of the training. Paragraphs (d)(1) through (d)(5) clarify when the different categories of training are considered completed under the final rule and must be certified. These provisions are consistent with § 115(c) of the Mine Act, which requires that operators give miners copies of their training certificates at the completion of each training program. The final rule specifies that certification and distribution of certificates to miners is required—

(1) Upon completion of the 24 hours of new miner training;

(2) Upon completion of newly hired experienced miner training;

(3) At least once every 12 months for new task training, or upon the miner's request, if applicable;

(4) Upon completion of 8 hours of annual refresher training; and

(5) Upon completion of site-specific hazard awareness training provided to miners.

The 12-month certification requirement for task training has been adopted into the final rule from our policy in this area under part 48. Under that policy, operators may provide miners with copies of their task training certificates at 12-month intervals. This is intended to reduce unnecessary paperwork. However, in the event that a miner wishes a copy of the certificate of the task training that he or she has received before the 12-month period has elapsed, the final rule provides that operators must provide a miner with a copy of the task training certificate upon request. You must certify records of training under paragraphs (d)(1) through (d)(5) and provide a copy to the miner as prescribed in the following table:

CERTIFICATION OF RECORDS AND COPY TO MINERS

Type of training	Record must be certified and copy provided to miner—
New miner training	Upon completion of the 24 hours of new miner training.
Newly hired experienced miner training	Upon completion of newly hired experienced miner training.
New task training	At least once every 12 months or upon request by the miner.
Annual refresher training	Upon completion of the 8 hours of annual refresher training.
Site-specific hazard awareness training	Upon completion by miners of site specific hazard awareness training.

Final § 46.9(e), like the proposal, adopts the statutory provision that false certification that training was completed is punishable under section 110(a) and (f) of the Mine Act. This aspect of the proposal received no comment and has been adopted without change into the final rule.

Several commenters were opposed to requiring operators to provide copies of training certificates to miners automatically upon completion of a training program, stating that it would impose an unnecessary, impractical, and burdensome paperwork requirement. These commenters strongly recommended that the final rule require training certificates to be provided to miners only ''upon request,'' similar to the approach taken in the proposal for miners who leave an operator's employ. Other commenters specifically questioned the need for this requirement for records of task training, stating that to require a certificate to be prepared and provided each time task training is given would be administratively difficult and would result in a proliferation of certificates that would not be helpful to employees. These commenters recommended that operators be permitted to maintain records of task training without having to provide copies of the certified records to miners.

The final rule does not adopt these recommendations. The Mine Act clearly requires operators to provide miners with copies of their training certificates upon completion of the training, and the requirements of the final rule are consistent with this statutory requirement. Additionally, the final rule clarifies that operators must provide miners with copies of their certificates only after all training of a particular type has been completed. This minimizes the recordkeeping and paperwork burden on operators, while fulfilling the statutory mandate.

Under final § 46.9(f), as under the proposed rule, you must give a miner a copy of his or her training records and certificates when the miner leaves your employ, upon the miner's request. This adopts the provision in § 115(c) of the Mine Act that miners are ''entitled'' to a copy of their certificates when they terminate their employment with an operator. We interpret the statutory language to mean that a miner must be provided a copy if he or she requests it, but that you do not have to provide copies to miners who do not make such a request. Those commenters who addressed this aspect of the proposal supported this interpretation, and this provision is adopted from the proposal unchanged.

As we indicated in the proposal, we anticipate that miners who are leaving for another job in the mining industry or who intend to return to the mining industry at some point in the future will request copies of their training records. This will enable miners to document their training status under part 46 at other mining operations. However, we also anticipate that some miners will

terminate their employment because they are retiring or otherwise have no expectation of returning to mining, and for these reasons the final rule does not require that you provide these records to the miner automatically.

Final § 46.9(g), like the proposal, requires you to make available at the mine site a copy of each miner's training records and certificates for inspection by us and for examination by miners and their representatives. Under this paragraph, you must also have the capability to produce the records and certificates upon request by us, miners, or their representatives, if you do not maintain these records at the mine site.

Commenters generally supported the flexibility that the proposal would give operators to maintain training records at a location other than the mine site. One commenter contended that it would be highly impractical for many small operators to maintain training records at the mine site, because many mines have no offices or other places to maintain records. Another commenter indicated that some aggregate operations are so small that there are no office facilities, computers, fax machines, or even conventional telephones. This commenter recommended that the final rule allow the retention of training records where the operation's other business records are maintained. If the records were requested by us for examination or by miners or their representative, the commenter suggested that the operator could fax or e-mail them to the person who made the request. However, one commenter expressed concern about allowing training certificates to be maintained away from the mine site, because it could delay MSHA inspectors from identifying untrained miners, who could continue to be exposed to hazards while attempts are made to produce the miners' training records.

Although the proposed rule would have allowed training certificates to be kept at a location away from the mine site, the proposal did not specify a time within which copies of the certificates must be produced after a request by us or by miners. We indicated in the preamble to the proposal that we expected that operators would be able to produce copies of training certificates within a reasonable time, which in most cases would be a relatively short period of time. We solicited comment on whether commenters supported imposing a deadline for operators to produce training certificates that are maintained away from the mine site. Many commenters who addressed this issue recommended that the final rule establish a deadline of one business day after the request for these certificates to be produced.

Section 115(c) of the Mine Act provides that miner training records be ''maintained by the operator'' and ''available for inspection at the mine site.'' The clear purpose of section 115 is to ensure that training records can be inspected by us and examined by miners and their representatives to determine whether miners have received required training at a specific operation.

The use of electronic information accessed by computers is an increasingly common business practice in general industry as well as in the mining industry. This type of technology can provide almost instantaneous communication and transfer of documents, even to remote locations. Electronic recordkeeping is typically more efficient and access to electronic records is often much faster than with traditional paper-based recordkeeping. As a result, we have concluded that if an operator's training records can be quickly accessed at the mine site by e-mail or fax machine, those records are ''available at the mine site'' for purposes of section 115(c) of the Mine Act. Allowing operators to maintain miner training records at a central location will promote the Mine Act's intent of flexibility in minimizing the paperwork burden and will further the objectives of the Paperwork Reduction Act of 1995.

However, we have determined that allowing a specific deadline, such as one business day, for operators to produce training records and certificates could unduly delay us in verifying that miners have received required training. Under section 104(g)(1) of the Mine Act, miners who have not received training required under section 115 must be immediately withdrawn from the mine. For those reasons, the final rule does not allow operators a specific period of time in which to produce training records and certificates. Instead, our expectation is that operators will produce these documents upon request. However, if an operator does not have the ability at the mine site to quickly access records and certificates maintained elsewhere, the operator must maintain the records and certificates at the mine site so that they can be produced in a short period of time for inspection and examination.

We do not believe that this requirement places an unreasonable burden on those operations where electronic access to records is not feasible. These are typically small operations with few employees and, as a result, a limited number of training records and certificates. Because of the small number of records, recordkeeping at the mine site is less problematic.

Final § 46.9(h) requires you to maintain copies of training records and certificates for each currently employed miner during his or her employment, except records and certificates of annual refresher training under § 46.8, which you must maintain for two years. You must also maintain copies of training certificates and training records for at least 60 days after a miner terminates employment.

Under the proposal, operators would have been required to maintain all of a miner's training records as long as the miner continued to be employed by the operator and for one year after the miner terminated his or her employment with that operator. A number of commenters questioned why the proposal would require such a long retention period for training records of currently employed miners. Commenters believed that this was quite burdensome in comparison to the two-year retention period of part 48 for currently employed miners and recommended that the part 48 retention periods be adopted in the part 46 final rule. Another commenter recommended that the final rule require that training records be kept a minimum of 12 months, regardless of whether the miner is still employed by the operator.

We acknowledge that the retention period for records of currently employed miners in the proposed rule could result in a significant recordkeeping burden for miners who remain employed with the same operator over a period of many years. However, we use these records to verify that miners have received required training. It makes sense to require retention of records of new miner training, newly hired experienced miner training, and task training as long as the miner remains employed with the operator, not just for two years. This will allow us to determine that miners have received the necessary initial training and training in new or modified tasks, even several years after the training has been given. On the other hand, retention of records of annual refresher training would not be necessary for more than two years, which is the retention period under part 48. Typically, examination of records over the last 24 months will provide us with a sufficient basis to verify that an operator has complied with refresher training requirements. For these reasons, the final rule does not require you to retain refresher training records and certificates longer than two years.

In response to comments, the final rule requires operators to maintain training records and certificates for at

least 60 days after the miner terminates his or her employment. This is consistent with existing part 48 requirements. As stated above, the proposal would have required operators to keep these records for one year after miners terminate their employment. We are persuaded by those commenters who advocated a 60-day retention period, which allows us to verify that required training has been given to all miners, including miners who recently terminated their employment, while minimizing the recordkeeping burden placed on operators.

Finally, one other commenter recommended that training records for miners be retained for at least 36 months after they terminate their employment with the operator, to be consistent with § 46.5, which allows new miner training courses to be credited towards the final rule's new miner training requirements for up to 36 months after the miner takes the courses. This commenter believed that a 36-month retention period would make it easier for miners to take advantage of this provision. Although this commenter makes a reasonable point, we do not believe it is necessary to impose a 36-month record retention period to address this situation. Instead of requiring a longer retention period in the final rule, we encourage miners to retain copies of their training records and certificates from previous employment. A miner who is terminating his or her employment with an operator and who wants evidence of prior training may obtain copies of his or her training records and certificates. The miner will then be able to document his or her prior training at the new mine.

Paragraph (i) has been added to final § 46.9 in response to comments that reflected commenters' confusion about the recordkeeping requirements for site-specific hazard awareness training. This provision states that you are not required to make a record of site-specific hazard awareness training under § 46.11 for persons who are not miners under § 46.2. However, you must be able to provide evidence to us, upon request, that the training was provided, such as by producing the training materials that are used, the written information distributed to persons upon their arrival at the mine, or a visitor log book that reflects that site-specific hazard awareness training has been given. Many operators already maintain log books where they track visitors to the mine and make entries in the book that indicate that visitors have received appropriate site-specific training. This would be an effective and acceptable method of demonstrating compliance with the requirements for site-specific hazard awareness training under the final rule.

Section 46.10 Compensation for Training

This section of the final rule addresses when training under this part must be conducted and how miners must be compensated when they receive training. This section, like the proposal, adopts the provisions of section 115 of the Mine Act that address compensation for miners who receive required training.

Section 115(b) of the Mine Act provides that health and safety training shall be provided during normal working hours and that miners shall be paid at their normal rate of compensation when they take such training. Section 115(b) also requires that if training is given at a location other than the normal place of work, miners shall be compensated for the additional costs incurred in attending such training.

Paragraph (a) of final § 46.10 incorporates this statutory requirement and provides that health and safety training must be conducted during normal working hours. As discussed earlier in this preamble, the part 48 definition of ''normal working hours'' has been included in the final rule in § 46.2 and provides that normal working hours means ''. . . a period of time during which a miner is otherwise scheduled to work.'' The definition also indicates that training may be conducted on the sixth or seventh working day provided that such work schedules have been established for a period of time to be accepted as the common practice. As discussed under the preamble for § 46.2, we intend that the schedule must have been in place long enough to provide reasonable assurance that the schedule change was not motivated by the desire to train miners on what had traditionally been a non-work day.

Final § 46.10(a), like the proposal, also provides that persons attending such training must be paid at a rate of pay that corresponds to the rate of pay they would have received had they been performing their normal work tasks. This provision has been adopted from part 48, received little comment, and has been adopted unchanged from the proposal.

Final § 46.10(b) requires that miners be compensated for the additional costs, such as mileage, meals, and lodging they may incur in attending training sessions at a location other than the normal place of work. Although we anticipate that much of the training provided under this part will be given at or near miners' normal workplaces, in those cases where miners must travel to receive required training, they are to be fully compensated for their expenses of travel.

Although commenters generally supported the proposed training compensation requirements, they requested clarification on a few issues. One commenter noted that training provided to miners after a long work day or on what would ordinarily be a day off would not be very effective. This commenter's concern reflects the rationale for the statutory requirement that training be conducted during normal working hours. Training provided to miners when they are tired after working an entire shift typically will be less effective than training provided when they are rested and alert.

Several commenters questioned whether travel time to training at locations away from the mine must occur during normal working hours. These commenters indicated that they may need to schedule miners to work longer than their normal shifts on days that the miners receive training. For example, if a miner's normal work shift is eight hours, would the final rule prohibit the miner traveling an hour each way to attend an eight-hour training session, for a total of ten hours?

We do not interpret the statute to mandate such a restrictive result. Under our interpretation, the final rule would not prohibit travel to an off-site training location outside of normal working hours, so long as the actual training occurs during normal working hours. However, a miner is entitled to compensation for travel to off-site training. As a practical matter, we expect that little, if any, off-site training will require extensive travel.

One commenter questioned whether mileage costs must be provided to miners who attend training at a site that is immediately adjacent to the mine site. This commenter stated that because the training location did not qualify as the normal place of work, a strict interpretation of this aspect of the proposal would require the miners to be compensated for mileage costs.

We agree that the statute and this aspect of the final rule can be interpreted in such a way as to produce unreasonable results. However, our intention is to interpret and enforce the final rule in a reasonable manner. In the case described by the commenter, we expect that the costs incurred by miners in traveling to a training location in the vicinity of the normal place of work would be the same as their ordinary

costs of getting to work. Because the statute requires that miners be compensated for additional costs of attending off-site training, we would not require reimbursement for travel costs in such a case. However, miners must be reimbursed for mileage costs in the more typical case where miners must drive a number of miles beyond their normal place of work to an off-site training location.

Finally, a few commenters noted that certain types of training may not be available during normal working hours. For example, miners who wish to take training from the Red Cross may need to take it at night. Although we are sympathetic to these commenters' concerns, the Mine Act specifically prohibits such a practice for training that is provided to satisfy part 46 requirements. We have no discretion to allow training to be provided outside of normal working hours if it is used to satisfy training requirements under this part. As a result, while we do not discourage the participation of miners in relevant safety and health training, such training must be conducted during normal working hours in order for it to be credited toward the minimum requirements of part 46.

Section 46.11 Site-Specific Hazard Awareness Training

This section of the final rule generally adopts the proposed provisions for site-specific hazard awareness training, but includes several changes from the proposal in response to comments. Under the final rule, like the proposal, persons who do not fall within the definition of ''miner'' under § 46.2 are required to receive site-specific hazard awareness training. The final rule also adopts, with some change, the proposed requirement that employees of independent contractors who are ''miners'' must also receive site-specific hazard awareness training at the mines where they work. Site-specific hazard awareness training must be given under the final rule before persons are exposed to mine hazards.

Several commenters stated that the title of proposed § 46.11 should be changed to more accurately describe the type of training that is required by the section. Commenters observed that the training under this section is intended to make persons aware of site-specific hazards before they enter the mine site and are exposed to these hazards. These commenters believed that the meaning of the term ''hazard training'' was unclear and could be confused with task training. We agree with these commenters, and the title of this section has been change to ''Site-Specific Hazard Awareness Training'' to more precisely identify the type of training that is required by this section of the final rule.

Commenters generally supported the concept of providing site-specific hazard awareness training to persons before they are exposed to mine hazards. Several commenters observed that the type of people who come to the mine site and the degree of their exposure to hazards varies tremendously. These commenters stated that the extent of hazard awareness training required by the final rule should vary greatly as well. Several commenters indicated that the type, duration, and delivery of this training should be commensurate with the hazards to which persons at the mine site are exposed.

Paragraph (a) of the final rule adopts the requirements of proposed § 46.11(c) and requires you to provide site-specific hazard awareness training before the affected person is exposed to mine hazards. We believe there is no reason to allow any delay in providing hazard awareness training. In fact, allowing persons to be exposed to mine hazards before they receive hazard awareness training would defeat the purpose of the training. We expect that hazard awareness training will not be overly burdensome and can be effectively provided to affected persons before they enter the mine site. We have moved this provision to the first paragraph of this section in the final rule to emphasize that site-specific hazard awareness training must be provided before the affected person is exposed to mine hazards.

A number of commenters questioned whether operators must provide hazard awareness training to persons who are on mine property but who are not exposed to mine hazards. One commenter used as examples soft drink delivery personnel or other visitors who go no further than the office to perform their work. These commenters recommended that the final rule clarify that hazard awareness training is not required for individuals who come onto mine property but who do not travel or perform work in the portion of the property upon which extraction or production is conducted. Some of these commenters also recommended that the final rule clarify what constitutes a ''mine site'' as that term is used in § 46.11.

As discussed in the preamble for final § 46.2, the final rule defines ''mine site'' as an area of the mine where mining operations occur. The final rule also defines ''mining operations'' to include activities such as mine development, drilling, blasting; maintenance and repair of mining equipment; and associated haulage of materials within the mine. For example, the mine site would include areas where mining operations take place, such as the pit, quarry, stockpiles, mine haul roads, or areas where customers travel or haul material. These definitions are intended to make clear that hazard awareness training is required for persons who are in the area of the mine property where mining-related activity takes place. Persons who are on mine property but who are never in the area of the property where mining operations occur are not required to receive hazard awareness training. For example, we do not intend that hazard awareness training be required for office or staff personnel whose offices are located some distance from the mine site and whose duties never require their presence at the mine site. However, office or staff personnel who travel occasionally about the mine site must receive hazard awareness training, unless they are accompanied by an experienced miner under final § 46.11(f).

Final § 46.11(b) requires that you provide site-specific hazard awareness training to any person who is not a miner as defined in § 46.2 but who is present at a mine site. This section also includes examples of such persons. Paragraphs (b)(1) through (b)(7) include examples of persons who are required to receive hazard awareness training, and the provisions of these paragraphs have been adopted with minor changes from the proposal. These persons include office or staff personnel; scientific workers; delivery workers; customers, including commercial over-the-road truck drivers; construction workers or employees of independent contractors who are not miners under § 46.2; maintenance or service workers who do not work at a mine site for frequent or extended periods; and vendors or visitors. This mirrors the list included in final § 46.2(g)(2) of persons who do not fall within the definition of ''miner'' and is discussed in greater detail in the preamble for that section. This list is intended to assist operators in determining the types of persons who must receive hazard awareness training, but is not meant to be all-inclusive.

The final rule requires hazard awareness training for vendors and visitors who are present at a mine site. Some commenters stated that these individuals are not usually exposed to mine hazards, and therefore they should not have to receive hazard awareness training. However, other commenters stated that this training should be

provided to visitors and vendors before they are exposed to mine hazards. We agree with commenters who believe that a vendor or visitor who will be in the vicinity of mine hazards, even for a limited period of time, should receive hazard awareness training.

We have added the provisions of § 46.11(b)(5) to the final rule to make clear that you must provide site-specific hazard awareness training to construction workers and employees of independent contractors who are not miners. This was the intent under the proposal, but language to that effect has been included in the final rule to ensure that there is no uncertainty about the requirements of final § 46.11. As discussed earlier, we stated in the preamble to the proposal that construction workers would be covered by part 46. However, the proposed rule itself made no specific mention of construction workers. We have addressed that omission in the final rule.

The provisions of final § 46.11(c) have been adopted with some change from proposed § 46.6(d) and take the place of provisions proposed under § 46.11(b). Under final § 46.11(c), you are required to provide miners, such as drillers or blasters, who move from one mine to another mine while remaining employed by the same production-operator or independent contractor with site-specific hazard awareness training for each mine. The provision of the final rule covers miners employed by both the independent contractor and the production-operator. The proposal would have required you to provide hazard training to each person who is an employee of an independent contractor and who is working at the mine as a miner, unless the miner has received newly hired experienced miner training at the mine. However, as explained in the preamble discussion of § 46.6 and in response to comments, we have concluded that miners who move from mine to mine are not ''newly hired'' when the begin work at a new mine if they remain employed by the same employers, whether production-operators or independent contractors. As a result, the final rule does not adopt the proposed option of newly hired experienced miner training for these miners.

Commenters generally supported a requirement for site-specific hazard awareness training for miners if they move from mine site to mine site. Contract drilling and blasting personnel are only two examples of these types of miners. Although these employees must receive comprehensive training because they are ''miners'' under the final rule, they must also receive site-specific hazard awareness training at each new mine before they begin work at the mine. As a practical matter, we expect that many, if not most, independent contractor employees will receive hazard awareness training under final § 46.11(b) because they do not meet the definition of ''miner'' under § 46.2. However, employees of independent contractors who do fall within the definition of ''miner'' also need effective orientation to their new work environments before they begin their job duties. This is consistent with the observations of commenters who stated that some miners move from mine to mine while remaining employed by the same production-operator and that these miners need to receive site-specific hazard awareness training as a minimum before they begin to work at each new mine. We agree with these commenters and § 46.11(c) specifically requires these miners to receive this training, whether employed by production-operators or independent contractors. This requirement recognizes that miners may encounter new or unfamiliar site-specific hazards as they travel from mine to mine.

Final § 46.11(d) has been adopted from the definition of ''hazard training'' that was included in proposed § 46.2. Commenters recommended that we move the definition of ''hazard training'' from § 46.2 to § 46.11, because § 46.11 specifically addresses hazard awareness training requirements. Commenters believed that this would make it easier for the mining community to understand the requirements of § 46.11. We agree with commenters that consolidation of this language in one place is more straightforward, and we have incorporated the language from the definition in proposed § 46.2 into § 46.11 of the final rule. Site-specific hazard awareness training is defined in this paragraph as information or instructions on the hazards a person may be exposed to while on mine property, as well as on applicable emergency procedures. Paragraph (d) further provides that the training must address site-specific health and safety risks, such as unique geologic or environmental conditions, recognition and avoidance of hazards such as electrical and powered-haulage hazards, traffic patterns and control, restricted areas, warning and evacuation signals, evacuation and emergency procedures, or other special safety procedures. The proposal would have provided that the hazards may include site-specific risks and included a similar list.

The final rule makes it mandatory that hazard awareness training cover site-specific risks. This is in response to commenters who pointed out that the purpose of the training is to ensure that persons who are unfamiliar with the mine and with the hazards of a particular operation have been provided with enough information to avoid exposure to hazards while they are at the mine. We recommend that you review the examples of hazards set forth in the final rule and ensure that the site-specific hazard awareness training addresses, at a minimum, all of the risks that are applicable at your mine.

Under final § 46.11(e), like proposed § 46.11(d), you may provide site-specific hazard awareness training through the use of written hazard warnings, oral instruction, signs and posted warnings, walkaround training, or other appropriate means that alert affected persons to site-specific hazards at the mine.

Commenters had varying opinions on how long hazard awareness training should last and what form it should take. Some commenters were concerned that the proposed rule allowed too much flexibility in how the site-specific hazard awareness information would be presented to affected persons. These commenters observed that, in some cases, operators could comply with the requirement for site-specific training exclusively through the use of warning signs, and that such training would be insufficient to protect persons who are unfamiliar with mining operations from the hazards that they may be exposed to at the mine. One commenter recommended that hazard awareness training include some form of personal instruction or interaction, such as walkaround training. Other commenters stated that the final rule should allow operators the flexibility to tailor their hazard awareness training to the specific conditions at their mine.

The final rule, like the proposal, affords operators the discretion to tailor site-specific hazard awareness training to the unique operations and conditions at their mines. However, the training must in all cases be sufficient to alert affected persons to site-specific hazards. Depending on the circumstances and the type and degree of the person's exposure to mine hazards, you may provide hazard awareness training through informal but informative conversations. In other cases, you may choose to provide some form of walkaround training by guiding the trainee around the mine site, pointing out particular hazards or indicating those areas that the person should avoid, or by some combination of these methods.

We also intend that hazard awareness training be appropriate for the individual who is receiving it and that the breadth and depth of training vary depending on the skills, background, and job duties of the recipient. For example, it may be appropriate for you to provide hazard awareness training to customer truck drivers by handing out a card to the drivers alerting them to the mine hazards or directing them away from certain areas of the mine site. More extensive hazard awareness training might be needed for an equipment manufacturer's representative who comes onto mine property to service or inspect a piece of mining equipment. Although this individual may not be on mine property for an extended period, the person's exposure to mine hazards may warrant more training. Appropriate hazard awareness training would typically be more comprehensive for contractor employees who fit the definition of ''miner'' because they are engaged in mining operations. These employees receive comprehensive training but also need orientation to the mine site and information on the mining operations and mine hazards.

The final rule allows you the flexibility to tailor your hazard awareness training to the specific conditions and practices at your mine. However, in most cases, an effective site-specific hazard awareness training program will include a combination of the different types of training listed in this paragraph. For example, you may want to provide oral instructions on the site-specific hazards and give the affected person the opportunity to ask questions about the mine in addition to the use of written handout materials and/or signs and posted warnings. The flexibility provided in the final rule is intended to allow operators to design and implement effective site-specific hazard awareness training programs that are suitable for their mine sites and the persons affected.

Under final § 46.11(f), like proposed § 46.11(e), you are not required to provide site-specific hazard awareness training to any person who is accompanied at all times by an experienced miner who is familiar with the hazards specific to the mine site. The experienced miner is not a ''competent person'' as defined in § 46.2, but the miner must be sufficiently familiar with the mine's operations and its hazards to ensure that the person the miner accompanies is protected from danger while at the mine site. This provision gives you the option of foregoing site-specific hazard awareness training, most likely for one-time visitors. We expect that, in many situations, it may be more expedient for the person to be accompanied, such as a visitor who is being taken on a mine tour.

Several commenters supported this provision and recommended that it be adopted in the final rule. Other commenters took issue with this provision, stating that an escort may not prevent a person unfamiliar with the mining environment from being inadvertently exposed to mine hazards. Other commenters stated that they believed that providing a visitor with an escort while the visitor is at the mine site is the most effective way to protect the visitor from mine hazards. We agree that people unfamiliar with mining can be protected if they are accompanied by an experienced miner at all times. However, although not required, there may be circumstances where it is advisable to provide individuals with some oral instructions before they enter the mine site, even though they will be accompanied by an experienced miner.

You should note that § 46.9(i) of the final rule specifically provides that you are not required to make a record of site-specific hazard awareness training for persons who are not ''miners.'' However, as indicated in § 46.9, you must be able to demonstrate to inspectors that you are in compliance with site-specific hazard awareness training requirements. This issue is addressed in greater detail under the preamble discussion for final § 46.9.

Finally, several commenters questioned whether government agents at the mine site would be covered by the site-specific hazard awareness training requirements in the final rule. The commenter pointed out that current MSHA policy for part 48 exempts government agents from hazard awareness training requirements. We intend that this issue be addressed in the same manner as it is under part 48. Although an argument could be made in favor of requiring government officials to receive hazard awareness training, we believe that these factors are outweighed by the need for these officials to be unimpeded in the exercise of their duties at the mine site. We expect that government agencies whose personnel visit mine sites will ensure that their employees receive adequate instruction and training so that the employees can carry out their duties in a safe and healthful manner.

Section 46.12 Responsibility for Independent Contractor Training

Section 46.12 of the final rule generally adopts the provisions proposed for the responsibility of training, which address the allocation of responsibility for training between production-operators and independent contractors with workers at the production-operators' mine sites. Under the final rule, independent contractors are responsible for ensuring that their employees who are ''miners'' receive comprehensive miner training. This is based on our determination that the contractor, not the production-operator, is in the best position to train his or her employees in the health and safety aspects of their particular tasks. Similarly, production-operators are primarily responsible for ensuring that independent contractor employees who work at the mine site receive required site-specific hazard awareness training. This is consistent with the fact that production-operators are in the best position to provide necessary information about hazards at their operations. Final § 46.12 also includes provisions that are intended to ensure that production-operators and independent contractors share information with one another about hazards at the mine, so that all employees can work safely.

Final § 46.12(a)(1) provides that each production-operator is primarily responsible for ensuring that site-specific hazard awareness training is given to employees of independent contractors. Under the proposal, production-operators would have been primarily responsible for ''providing'' site-specific hazard training to employees of independent contractors.

This aspect of the proposal was the subject of much comment. Many commenters objected to holding production-operators responsible for any aspect of training for independent contractor employees. These commenters maintained that it would be appropriate for the production-operator to provide the independent contractor with information about site-specific hazards, but that responsibility for providing the actual training should rest with the independent contractor. One commenter asserted that production-operators do not always have control of people who come on and off site. Another commenter stated that a requirement that production-operators train contractor employees would require the production-operators to accept responsibility for a very large number of individuals who may visit the mine only on occasion or for relatively low-risk activity. This commenter was concerned that production-operators would have to redirect their attention to contractor employees, away from their own employees who may be working at higher risk jobs.

Other commenters agreed with placing primary responsibility for site-specific hazard awareness training on production-operators. One commenter maintained that the production-operator is the only entity knowledgeable enough to ensure that independent contractor employees are aware of site-specific hazards at the mine site to which they may be exposed. Other commenters insisted that the proposal placed responsibility for training contractor employees where it belongs-on the production-operator for hazard awareness training and on the independent contractor for comprehensive training. Several commenters believed that the proposed requirements would enhance communication between production-operators and independent contractors.

We continue to believe, as indicated in the preamble to the proposed rule, that it is appropriate to place primary responsibility for site-specific hazard awareness training on production-operators. Production-operators have overall responsibility for health and safety conditions at their mine sites and are in the best position to convey information about site-specific hazards to workers who come onto mine property. However, as we explained in the preamble to the proposed rule, final § 46.12(a)(1) does not require production-operators to personally provide site-specific hazard awareness training to the employees of an independent contractor. For these reasons, the language of the final rule varies slightly from the language in the proposal. The final rule provides that production-operators are primarily responsible for ''ensuring'' that independent contractor employees receive required site-specific hazard awareness training. This is intended to clarify that production-operators do not need to provide the training themselves but must ensure that the training has been given. For example, one commenter recommended that the production-operator and the independent contractor coordinate whether the production-operator will provide site-specific hazard awareness training information to independent contractor management, who would then train the contractor employees, or whether the production-operator will provide the information directly to the contractor employees. This is an acceptable approach under the final rule. Consistent with final § 46.4, production-operators may provide independent contractors with site-specific hazard awareness information or training materials and arrange for the contractors to provide the training to the contractors' employees. However, production-operators retain the primary responsibility of ensuring that everyone who comes onto mine sites has received the necessary site-specific hazard awareness training.

A few commenters appeared to misunderstand the requirements of proposed § 46.12(a). For example, one commenter observed that production-operators often hire contractors because production-operators often do not have the equipment or knowledge to do the job. In that instance, the commenter maintained, it would be wrong to expect the production-operator to provide comprehensive training to contractor employees when the production-operator may not be familiar with their work and the associated hazards. In response to this comment, we would like to clarify that the final rule, like the proposal, places primary responsibility on production-operators to ensure training for contractor employees only with regard to site-specific hazard awareness training. Final § 46.12(b)(1), discussed below, explicitly provides that independent contractors are primarily responsible for providing their miner employees with any other training required under this part.

Final § 46.12(a)(2) adopts the proposed requirement that production-operators inform independent contractors of site-specific hazards associated with the mine and the obligation of the contractor to comply with our regulations, including part 46. This aspect of the proposal received little comment, and we have adopted it unchanged into the final rule.

Final § 46.12(b)(1) provides that independent contractors who employ ''miners'' are primarily responsible for providing comprehensive training to their employees (i.e., training under §§ 46.5 through 46.8). Virtually all commenters agreed with this aspect of the proposal. We would point out that this provision does not preclude independent contractors from arranging for the production-operator to provide comprehensive training to the contractors' employees. However, the primary responsibility for comprehensive training for contractor employees continues to rest on the independent contractor.

A few commenters suggested that the final rule require production-operators to verify that independent contractor employees have received all training required under part 46. As we indicated in the preamble to the proposal, the requirements of this section are consistent with our current policy on independent contractors, which provides that production-operators have overall compliance responsibility at their mines, which includes ensuring compliance by independent contractors with the Mine Act and regulations. Independent contractors are responsible for compliance with the Act and regulations with respect to their activities at a particular mine. We also cite independent contractors for violations committed by them and their employees. However, neither this policy nor the provisions of this section change the production-operators' basic responsibilities for compliance with the Act. Production-operators are subject to all provisions of the Act and to all standards and regulations applicable to their mining operations. One way for production-operators to address this responsibility is to confirm when contracting with independent contractors that the contractors' employees will receive health and safety training and to include this as a provision in the contract. It may also be prudent for them to request and maintain evidence of independent contractors' compliance with training requirements.

Under final § 46.12(b)(2), as under the proposal, an independent contractor must inform the production-operator of any hazards of which the contractor is aware that may be created by the performance of the contractor's work at the mine. We did not receive any comments specifically addressing the provisions of this paragraph, and we have adopted it without change into the final rule.

XIV. References

Conference Rep. No. 95–461, 95th Cong., 1st Sess., (1977).

Federal Metal and Nonmetallic Mine Safety Act, September 16, 1966.

Federal Coal Mine Health and Safety Act, December 30, 1969.

Federal Mine Safety and Health Act, November 9, 1977.

H.R. Rep. No. 105–825 for H.R. 4328, 105th Cong., 2d Sess. (1998).

Joint Industry and Labor draft proposed rule for Training and Retraining of Miners Engaged in Shell Dredging or Employed at Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines, February 1, 1999.

MSHA, Health and Safety Training and Retraining of Miners, Final Rule, October 13, 1978 [43 FR 47454–47468].

MSHA, Notice of Public Meetings, November 3, 1998 [63 FR 59258].

MSHA, Notice of Public Hearings, April 14, 1999 [63 FR 18528].

MSHA, Experienced Miner and Supervisor Training, Final Rule, October 6, 1998 [63 FR 53750].

MSHA, Training and Retraining of Miners Engaged in Shell Dredging or Employed at

Sand, Gravel, Surface Stone, Surface Clay, Colloidal Phosphate, or Surface Limestone Mines, Proposed Rule, April 14, 1999, [64 FR 18498–18528].

Omnibus Appropriations Act for 1999, P.L. 105–277, October 21, 1998.

S. Rep. No. 105–300 for S. 2440, 105th Cong., 2d Sess., (1998).

Transportation Equity Act ''TEA–21'' (P.L. 105–178), June 9, 1998.

U.S. Geological Survey, U.S. Department of the Interior, Mineral Industry Surveys, Crushed Stone and Sand and Gravel in the Third Quarter of 1998, December 1998, pp. 1–5.

U.S. Geological Survey, U.S. Department of the Interior, Mineral Industry Surveys, Crushed Stone and Sand and Gravel in the First Quarter of 1999, June 1999, pp. 1–6.

U.S. Geological Survey, Mineral Commodity Summaries, Stone (Crushed), Valentin V. Tepordei, January 1996, pp. 1–2.

U.S. Geological Survey, Mineral Commodity Summaries, Stone (Crushed), Valentin V. Tepordei, February 1997, pp. 1–2.

U.S. Geological Survey, Mineral Commodity Summaries, Stone (Crushed), Valentin V. Tepordei, January 1998, pp. 1–2.

U.S. Geological Survey, Mineral Commodity Summaries, Stone (Crushed), Valentin V. Tepordei, January 1999, pp. 1–2.

U.S. Geological Survey, Mineral Commodity Summaries, Sand and Gravel (Construction), Wallace P. Bolen, January 1996, pp. 1–2.

U.S. Geological Survey, Mineral Commodity Summaries, Sand and Gravel (Construction), Wallace P. Bolen, February 1997, pp. 1–2.

U.S. Geological Survey, Mineral Commodity Summaries, Sand and Gravel (Construction), Wallace P. Bolen, January 1998, pp. 1–2.

U.S. Geological Survey, Mineral Commodity Summaries, Sand and Gravel (Construction), Wallace P. Bolen, January 1999, pp. 1–2.

List of Subjects

30 CFR Part 46

Mine safety and health, Reporting and recordkeeping requirements, Surface mining, Training programs.

30 CFR Part 48

Mine safety and health, Reporting and recordkeeping requirements, Training programs.

Dated: September 23, 1999.

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