

PRELIMINARY REGULATORY ECONOMIC ANALYSIS  
FOR

ALCOHOL- AND DRUG-FREE MINES: POLICY, PROHIBITIONS, TESTING,  
AND ASSISTANCE

PROPOSED RULE

RIN 1219-AB41

U.S. Department of Labor  
Mine Safety and Health Administration  
Office of Standards, Regulations, and Variances

September 2008

## Table of Contents

Executive Summary .....	3
Introduction.....	3
Mine Sector Affected .....	3
Benefits.....	3
Compliance Cost.....	4
Regulatory Flexibility Certification and Analysis.....	4
Industry Profile.....	5
Introduction.....	5
Structure of the Mining Industry .....	5
Benefits.....	9
Benefits of Proposed Provisions .....	9
Cost of Compliance .....	12
Summary of Total Cost of Proposed Rule.....	12
Scope.....	12
Section-by-Section Discussion .....	13
Subpart C - Alcohol- and Drug-Free Mine Program.....	13
Section 66.201 - Written Policy.....	13
Section 66.202- Education and Awareness Program for Nonsupervisory Miners. ....	16
Section 66.203- Training Program for Supervisors.....	22
Subpart D - Alcohol- and Drug- Testing Requirements .....	27
Section 66.304 - Pre-employment Testing.....	28
Section 66.305 - Random Testing .....	31
Section 66.306 - Post-accident Testing.....	31
Section 66.307 - Reasonable Suspicion Testing .....	32
Subpart E - Operator Responsibilities, Actions, and Consequences .....	33
Section 66.406 - Return-to-duty and Follow-up Testing.....	33
Subpart F - Recordkeeping and Reporting .....	50
Compliance Cost Summary .....	53
Feasibility .....	53
Regulatory Flexibility Act and Small Business Regulatory Enforcement Fairness Act .....	60
Definition of a Small Mine.....	60
Factual Basis for Certification .....	60
Derivation of Costs and Revenues .....	60
Coal Mine Revenues .....	60
M/NM Mine Revenues.....	61
Results of Screening Analysis.....	61

## Executive Summary

### Introduction

This Preliminary Regulatory Economic Analysis (PREA) examines the costs and benefits of the proposed requirements for coal and metal/non metal (M/NM) mine operators to establish an alcohol- and drug-free mine program that includes a written policy, alcohol- and drug-testing and training for miners who perform safety-sensitive job duties and their supervisors, and recordkeeping provisions. General administrative and clerical personnel are not covered by these proposed requirements.

### Mine Sector Affected

The proposed rule establishes new standards for all mine operators. With respect to the coal mining industry, the proposed rule would apply to 2,013 coal mines employing 80,256 miners and to 2,966 coal contractors with an additional 36,227 non-office employees, using MSHA's Office of Program Evaluation and Information Resources (PEIR) data for 2007. With respect to the metal and non metal (M/NM) mines, the proposed rule would apply to 12,773 M/NM mines employing 159,644 miners and to 5,302 M/NM contractors with an additional 64,333 non-office employees, using PEIR data for 2007. Office workers who have only clerical or administrative duties are not covered by the proposed requirements for alcohol- and drug-testing or training. In total, this rule would apply to approximately 23,054 mine operators (i.e., mines and contractors) and 340,460 miners (i.e., miners and non-office employees of contractors).

### Benefits

This proposed rule would require mine operators to establish an alcohol- and drug-free mine program to prevent workplace accidents, injuries and fatalities in mines caused by the use or abuse of alcohol and/or drugs.

MSHA currently prohibits the use of intoxicating beverages and narcotics in or around M/NM mines; and persons under the influence of alcohol or narcotics are not permitted on the job site. However, since these requirements only apply to M/NM operators, MSHA believes that uniform policies and procedures are needed to prevent the use of alcohol and drugs that could impair the functioning of miners and result in the injury or death in both coal and M/NM mines.

A major benefit from this rulemaking would be the prevention of injuries and fatalities resulting from accidents caused by neglect or error on the part of individuals whose judgment or motor skills may be impaired by the use of alcohol and/or drugs.

### **Compliance Cost**

MSHA estimates the total cost for the initial year of the proposed rule would be approximately \$16,008,983 for all coal and M/NM mine operators and mine contractors. MSHA estimates annual recurring cost thereafter for all mine operators and contractors is \$13,008,951.

### **Regulatory Flexibility Certification and Analysis**

In accordance with of the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), MSHA has analyzed the impact of the proposed rule on small entities. Based on the analysis, MSHA certifies that the proposed rule does not have a significant economic impact on a substantial number of small entities.

## Industry Profile

### Introduction

This chapter provides information concerning the structure and economic characteristics of the mining industry, including the number of mines and employees by type and size of mine. The value of output of the coal and metal and non metal (M/NM) production was estimated to be approximately \$98.3 billion, or 0.5 percent of 2007 Gross Domestic Product (GDP). Coal mining contributed \$30.3 billion to the GDP,<sup>1</sup> while the M/NM mining sector contributed \$68 billion.<sup>2</sup>

### Structure of the Mining Industry

MSHA divides the mining industry into two sectors based on commodity: (1) coal mines and (2) metal and non metal (M/NM) mines. Each sector is further divided by type of operation (i.e., underground mines or surface mines). MSHA collects data on the number of mines and on mining employment by mine type and size. MSHA also collects data on the number of independent contractors and their employees.

Table 1 presents MSHA data on underground and surface coal mines, by employment size, excluding contractors. These data indicate that there were 2,013 coal mines that reported employment during some portion of calendar year 2007. Coal mines, excluding contractors, employed 80,256 miners that were covered by this rule in 2007. Coal production value is estimated to be \$30.33 billion, of which \$14.08 billion is for underground coal mines and \$16.25 billion is for surface coal mines.

Table 2 presents MSHA data on underground and surface M/NM mines, by employment size, excluding contractors. These data indicate that there were 12,773 M/NM mines that reported employment during some portion of calendar year 2007. M/NM mine employment in 2007 was 187,031, of which 159,644 were miners covered by this rule. The 27,387 office and administrative workers would not be covered by the proposed requirements for alcohol- and drug-testing and training because these workers do not perform job activities that are inherently dangerous on a regular or recurring basis. The estimated value of all M/NM mining output in 2007 was \$68 billion, with metal mine production accounting for \$24.8 billion and non metal mine production accounting for \$43.2 billion.<sup>3</sup>

Table 3 presents MSHA data on independent contractors that work in coal and M/NM mines. These data indicate that there were 8,268 contractor firms (2,966 in coal and 5,302 in M/NM) that reported employment during some

---

<sup>1</sup> Coal production data for 2007 are from the U.S. Department of Labor Mine Safety and Health Administration, Office of Program Evaluation and Information Resources.

<sup>2</sup> U.S. Department of the Interior, U.S. Geological Survey, Mineral Commodities Summaries 2008, January 2008, pg 8.

<sup>3</sup> Ibid, pg 7.

portion of calendar year 2007. Coal contractor employment in 2007 was 38,334, of which 36,227 were non-office employees. M/NM contractor employment in 2007 was 67,027, of which 64,333 were non-office employees.

Table 4 provides an aggregate summary of mine operations, including contractors, by mine type and size. These data indicate that the proposed rule would apply to 23,054 mine operators and 340,460 miners. General administrative and clerical personnel are not covered by these proposed requirements.

**Table 1: Distribution of Coal Operations and Employment by Mine Type and Size (Excluding Contractors), 2007**

Mine Type	Size of Coal Mine									All Coal Mines		
	1- 19 Employees			20 to 500 Employees			501+ Employees					
	Mines	Miners	Office Employment	Mines	Miners	Office Employment	Mines	Miners	Office Employment	Mines	Miners	Office Employment
Underground	223	2,266	64	391	33,512	1,034	10	6,429	159	624	42,207	1,257
Surface	904	5,822	408	481	29,088	2,022	4	3,139	51	1,389	38,049	2,481
<b>Total</b>	<b>1,127</b>	<b>8,088</b>	<b>472</b>	<b>872</b>	<b>62,600</b>	<b>3,056</b>	<b>14</b>	<b>9,568</b>	<b>210</b>	<b>2,013</b>	<b>80,256</b>	<b>3,738</b>

**Table 2: Distribution of M/NM Mine Operations and Employment by Size (Excluding Contractors), 2007**

Mine Type	Size of M/NM Mine									All M/NM Mines		
	1- 19 Employees			20 to 500 Employees			501+ Employees					
	Mines	Miners	Office Employment	Mines	Miners	Office Employment	Mines	Miners	Office Employment	Mines	Miners	Office Employment
Underground	109	810	111	138	10,843	1,421	6	3,628	240	253	15,281	1,772
Surface	10,855	53,645	10,377	1,646	76,008	13,443	19	14,710	1,795	12,520	144,363	25,615
<b>Total</b>	<b>10,964</b>	<b>54,455</b>	<b>10,488</b>	<b>1,784</b>	<b>86,851</b>	<b>14,864</b>	<b>25</b>	<b>18,338</b>	<b>2,035</b>	<b>12,773</b>	<b>159,644</b>	<b>27,387</b>

**Table 3: Distribution of Coal and M/NM Contractors by Mine Type and Size, 2007**

Contractor Type	Size of Coal M/NM Contractors									All Coal and M/NM Contractors		
	1- 19 Employees			20 to 500 Employees			501+ Employees					
	Firms	-Office Emplo	Office Employees	Firms	-Office Emplo	Office Employees	Firms	-Office Emplo	Office Employees	Firms	Non-Office Employees	Office Employees
Coal	2,537	11,411	617	428	24,463	1,338	1	353	152	2,966	36,227	2,107
M/NM	4,625	22,099	930	670	35,925	1,629	7	6,309	135	5,302	64,333	2,694
Total	7,162	33,510	1,547	1,098	60,388	2,967	8	6,662	287	8,268	100,560	4,801

**Table 4: Distribution of Coal and M/NM Operations (Including Contractors) by Mine Type and Size, 2007**

Mine Type	Size of Coal M/NM Contractors Including Contractors									Coal and M/NM		
	1- 19 Employees			20 to 500 Employees			501+ Employees					
	Firms	-Office Emplo	Office Employees	Firms	-Office Emplo	Office Employees	Firms	-Office Emplo	Office Employees	Mines	Miners	Office Employment
Coal	3,664	19,499	1,089	1,300	87,063	4,394	15	9,921	362	4,979	116,483	5,845
M/NM	15,589	76,554	11,418	2,454	122,776	16,493	32	24,647	2,170	18,075	223,977	30,081
Total	19,253	96,053	12,507	3,754	209,839	20,887	47	34,568	2,532	23,054	340,460	35,926



## Benefits

The use of alcohol and drugs in the workplace negatively affects U.S. industry through lost productivity, workplace accidents and injuries, employee absenteeism, low morale, and increased illness. The loss to U.S. companies due to employees' alcohol and drug use and related problems is estimated at billions of dollars per year. This proposed rule would require mine operators to establish an alcohol- and drug-free mine program to prevent workplace accidents, injuries and fatalities in mines caused by the use or abuse of alcohol and/or drugs.

### Benefits of Proposed Provisions

MSHA currently prohibits the use of intoxicating beverages and narcotics in or around M/NM mines; and persons under the influence of alcohol or narcotics are not permitted on the job site. However, since these requirements only apply to M/NM operators, MSHA believes that uniform policies and procedures are needed to prevent the use of alcohol and drugs that could impair the functioning of miners and result in the injury or death in both coal and M/NM mines.

A major benefit from this rulemaking would be the prevention of injuries and fatalities resulting from accidents caused by neglect or error on the part of individuals whose judgment or motor skills may be impaired by the use of alcohol and/or drugs. MSHA's reporting process does routinely include inquiries into the use of alcohol or drugs as contributing factors in mine accidents. Consequently, there may have been accidents in which alcohol or drugs were involved but were not reported to inspectors or identified during MSHA investigations. A preliminary review by MSHA of fatal and non-fatal mine accident records revealed a number of instances in which alcohol, drugs or drug paraphernalia were found or reported at the scene, or where the post-accident toxicology screens of those involved in an accident revealed the presence of alcohol or drugs.

The U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration's (SAMHSA) *2006 National Survey on Drug Use and Health*<sup>4</sup> reports that in 2006, of the 17.9 million current illicit drug<sup>5</sup>

---

<sup>4</sup> The 2006 National Survey on Drug Use and Health (NSDUH) is the annual survey and primary source of information on the use of illicit drugs, alcohol, and tobacco in the civilian, non-institutionalized population of the United States aged 12 years old or older.

<sup>5</sup> The survey defined current illicit drug use as the non-medical use of marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants or prescription-type drugs. Non-medical use is defined as the use of prescription-type drugs not prescribed for the respondent by a physician or used only for the experience or feeling they caused. Non-medical use of any prescription-type pain reliever, sedative, stimulant, or tranquilizer does not include over-the counter drugs. Non-medical use of stimulants includes methamphetamine use.

users age 18 and over, 13.4 million (74.9 percent) were employed.<sup>6</sup> Similarly, among 54 million adult binge drinkers, 42.9 million (79.4 percent) were employed, and among 16.3 million persons reporting heavy alcohol use, 12.9 million (79.2 percent) were employed.<sup>7</sup> Also, in 2006, of the 20.6 million adults classified with substance dependence or abuse, 12.7 million (61.5 percent) were employed full-time.<sup>8</sup> Furthermore, among the U.S. working age population (ages 18-64) diagnosed with a substance use disorder, 62.7 percent were employed full-time.<sup>9</sup>

In a 1998 analysis of available toxicology reports across a variety of occupations and within different industries, the Bureau of Labor Statistics (BLS) estimated that as many as one in five workplace fatalities had a positive test for alcohol or drugs.<sup>10</sup> BLS reported that alcohol was the substance found most often, appearing in 48 percent of positive reports.<sup>11</sup>

SAMHSA's June 2007 *Worker Substance Use and Workplace Policies and Programs Report*<sup>12</sup> shows alcohol and drug use and abuse by standard occupational and industry classifications. Illicit drug use was reported at 15.1 percent and heavy alcohol use was 17.8 percent among full-time workers aged 18-64 in the construction, trade, and excavation occupational group.<sup>13</sup> The data also show that in the mining<sup>14</sup> industry, 13.3 percent of full-time miners were heavy alcohol users and 7.3 percent admitted that they used illicit drugs within the past month. This does not mean that those surveyed admitted to either being under the influence or having used alcohol or drugs at work or immediately prior to work. However, the statistics do suggest a cause for employer concern since there are no guarantees that those who drink heavily or use illicit drugs would constrain such behaviors, which have the potential to seriously jeopardize mine safety, to off-duty hours.

Many firms find that addressing alcohol and drug use is well worth the time and money involved in an alcohol- and drug-testing program. For

---

<sup>6</sup> Substance Abuse and Mental Health Services Administration. (2007). *Results from the 2006 National Survey on Drug Use and Health: National Findings* (Office of Applied Studies, NSDUH Series H-32, DHHS Publication No. SMA 07-4293). Rockville, MD.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Weber, W., and Cox, C. "Work-Related Fatal Injuries in 1998" *Compensations and Working Conditions*, Spring 2001, pp. 27- 29.

<sup>11</sup> Ibid.

<sup>12</sup> Substance Abuse and Mental Health Services Administration (2007). *The Worker Substance Use and Workplace Policies and Programs Report* presents findings on substance use among workers and on workplace drug policy and programs from the 2002, 2003, and 2004 National Surveys of Drug Use and Health. (Office of Applied Studies, Analytic Series: A-29).

<sup>13</sup> The Standard Occupation System categorizes occupations into 21 groups. The Construction Trades and Extraction Workers group includes mining.

<sup>14</sup> The NAICS, which replaced the Standard Industry Classification (SIC), categorizes all industries into 19 major groups and is used to classify industries in the *Report*.

example, after MSHA published the 2005 Advanced Notice of Proposed Rulemaking (ANPRM), an industry representative said, "The principle benefit is it's a safe workplace due to employees operating out of the influence of drugs or alcohol." A commenter from a trade association said, "The costs to a mine operation of substance abuse in worker health and safety, as well as production losses, are already a powerful incentive to maintain an effective substance abuse program."

The purpose of the requirements in the proposed rule is to establish alcohol- and drug-free programs in all mine operations. These programs are designed to help prevent accidents, injuries, and fatalities resulting from the misuse of alcohol and drugs by miners who perform safety-sensitive duties on mine property. An alcohol- and drug-free mine program that includes alcohol- and drug-testing and training would decrease injuries and fatalities. The number of fatalities associated with alcohol or drugs is difficult to quantify due to a lack of consistency in reporting the possibility of alcohol or drug involvement in injuries and fatalities.

MSHA's analysis of fatal accidents from 1975 to 2007 revealed that 24 of 978 reported deaths involved alcohol or drugs. From 1983 through 2007, there were 593,047 nonfatal accidents reported, with 56 possibly involving alcohol or drugs. MSHA believes these figures under-represent the negative effects of alcohol and drugs in the mines because of a current lack of uniformity in investigation and reporting procedures.

Current regulations prohibit the use of intoxicating beverages and narcotics on or around M/NM mines, and persons under the influence are not permitted on the job. Mine operators are not currently required to have an alcohol- and drug-free mine program for preventing the use of alcohol and drugs that could impair the function of miners and result in the injury or death of themselves or their coworkers. However, MSHA believes this proposed rule would benefit both mine operators and miners in the following ways:

(1) Mine operators would not have to hire new miners who cannot pass a pre-employment test, so all operators would benefit from not hiring persons shown to misuse alcohol or drugs. (2) Small mines in particular would benefit by implementing alcohol- and drug-testing procedures, since many small mines currently do not test for alcohol and drug use and hence employ those unable to pass pre-employment tests required by larger mines. (3) All mine operators across the country would be subject to consistent requirements. (4) Miners would benefit by having job security in the event that they self-disclose an alcohol or drug problem or seek treatment upon their first positive alcohol or drug test.

Not implementing this rule would allow accidents related to alcohol and drugs, including cases where innocent co-workers are harmed, to continue to be underreported and possibly allow accidents related to alcohol and drugs to go unabated.

## **Cost of Compliance**

### **Summary of Total Cost of Proposed Rule**

MSHA estimates that the total cost for the initial year of the proposed rule would be approximately \$16,008,983 for all coal and M/NM mine operators and M/NM mine contractors. The estimated annual cost recurring thereafter for all mine operators and contractors is \$13,008,951.

### **Scope**

The proposed rule would apply to all mine operators and mine contractors. This represents 14,786 mines and 8,268 mine contractors that employed 239,900 miners and 100,560 contractors in 2007. Office and administrative workers would not be covered by the proposed requirements for alcohol- and drug-testing and training because these workers do not perform job activities that are inherently dangerous on a regular or recurring basis. Therefore, the proposed rule is estimated to apply to a total of 340,460 miners and 23,054 mine operators and contractors.

MSHA assumes throughout the PREA that a majority of large mining establishments have an existing alcohol- and drug-free mine program in place that includes the components that MSHA is proposing, thereby making these operators in compliance with this rulemaking. MSHA made this determination from comments and testimony received from the ANPRM published in October 2005. From this information, MSHA estimates that 85 percent of the mining establishments with 501 or more employees; 30 percent of the mining establishments with 20- 500 employees; and 15 percent of mine operations with less than 20 employees have an alcohol- and drug-free mine policy that would meet the requirements of this proposed rule. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that would meet these proposed requirements.

## **Section-by-Section Discussion**

### **Subpart C – Alcohol- and Drug-Free Mine Program**

#### **Section 66.201 - Written Policy**

MSHA's proposed rule would require each mine operator to develop a written policy statement. Each mine operator's policy is required, at a minimum, to address the purpose of the rule and policy; a description of the prohibited behaviors under the rule; an outline of the means, including testing, for determining if the policy has been violated; an explanation of the consequences for violating the policy; and training. Commenters on the ANPRM agree with MSHA that a written policy is the most effective way to communicate to miners what is expected of them. Written policies are standard practice for safety policies in mining as well as other industries.

A mine operator must ensure that every miner has been provided a copy of the policy. Mine operators may also choose to provide a copy of the written policy to the miners' representative or post the policy on a bulletin board in a common area in the event that the miners do not have a representative.

MSHA estimates that for those operators without an alcohol-and drug-free mine program, it would take a mine supervisor one hour to modify the policy statement provided in these regulations by MSHA. MSHA used an hourly compensation rate of \$75.02 for a coal mine supervisor and a coal mine contractor supervisor; and \$60.34 for a M/NM mine supervisor and a M/NM contractor supervisor. The cost to distribute the policy statement to a miner representative or post on a bulletin board is based on the cost to photocopy a single copy of a 10-page policy statement at \$0.25 per page. Tables 5.1 and 5.2 present MSHA's estimates of the costs to develop a written policy by type of mine operation and size. Table 6 aggregates these estimates by size.

As noted previously, MSHA assumes that 85 percent of operators with 501 or more employees; 30 percent of operators with 20-500 employees; and 15 percent of operators with less than 20 employees have an alcohol- and drug-free mine program in place that includes a policy statement that would meet this proposed requirement. MSHA requests comments on its estimate of the number of mine operations with an existing alcohol- and drug-free mine program that have a written policy that would meet this proposed requirement. MSHA also requests comments on its cost assumptions related to the distribution of the written policy.

**Table 5.1: One-time Costs for Mine Operators to Develop an Alcohol- and Drug-Free Mine Policy and to Distribute the Plan to Miners, by Mine Type and Size**

Coal				
Size	Number of Mines	Cost to Develop Policy	Cost to Distribute/Post Policy	Total Cost
Small (<20)	1,127	\$75.02	\$2.50	\$74,260
Large(20-500)	872	\$75.02	\$2.50	\$47,318
Large (>500)	14	\$75.02	\$2.50	\$163
<b>Total</b>	<b>2,013</b>			<b>\$121,741</b>

  

M/NM				
Size	Number of Mines	Cost to Develop Policy	Cost to Distribute/Post Policy	Total Cost
Small (<20)	10,964	\$60.34	\$2.50	\$585,631
Large(20-500)	1,784	\$60.34	\$2.50	\$78,475
Large (>500)	25	\$60.34	\$2.50	\$236
<b>Total</b>	<b>12,773</b>			<b>\$664,341</b>

**Table 5.2: One-time Costs for Mine Contractors to Develop an Alcohol- and Drug-Free Mine Policy and to Distribute the Plan to Miners, by Mine Type and Size**

Coal Contractors				
Size	Number of Mines	Cost to Develop Policy	Cost to Distribute/Post Policy	Total Cost
Small (<20)	2,537	\$75.02	\$2.50	\$167,168
Large(20-500)	428	\$75.02	\$2.50	\$23,225
Large (>500)	1	\$75.02	\$2.50	\$12
<b>Total</b>	<b>2,966</b>			<b>\$190,405</b>

  

M/NM contractors				
Size	Number of Mines	Cost to Develop Policy	Cost to Distribute/Post Policy	Total Cost
Small (<20)	4,625	\$60.34	\$2.50	\$247,040
Large(20-500)	670	\$60.34	\$2.50	\$29,472
Large (>500)	7	\$60.34	\$2.50	\$66
<b>Total</b>	<b>5,302</b>			<b>\$276,578</b>

**Table 6: Aggregate One-time Costs for Mine Operators (Including Contractors) to Develop an Alcohol- and Drug-Free Mine Policy and to Distribute the Plan to Miners, by Size**

Size	Coal & M/NM (including contractors)	
	Number of Mines	Total Cost
Small (<20)	19,253	\$1,074,099
Large(20-500)	3,754	\$178,490
Large (>500)	47	\$476
<b>Total</b>	<b>23,054</b>	<b>\$1,253,065</b>

## **Section 66.202- Education and Awareness Program for Nonsupervisory Miners.**

Before being assigned to safety-sensitive job duties, each newly hired miner must receive a minimum of 60 minutes of training to inform them of the mine operator's alcohol- and drug-free mine policy. The training would also include topics on the dangers of alcohol and drug use and the impact of such use on the safety in the mine. New miners would also be informed of actions to take when they suspect that others are in violation of the policy and about any available alcohol and drug counseling and employee assistance programs. This training can be delivered with other new hire training offered by the mine operator.

MSHA estimates the cost for new miner training is related to the 60 minutes of nonproduction time to attend this training. MSHA used an hourly compensation rate of \$32.47 for newly hired coal miners and coal mine contractors and \$25.61 for newly hired M/NM miners and M/NM mine contractors. MSHA estimates annual new hires using a 7 percent turnover rate for all to determine the annual rate of new hires. MSHA projects that this rate would be constant in outlying years.

To mitigate training costs to operators, MSHA developed training materials for operators to use to meet the requirements for the new miner training, which are available from MSHA or on the web site at [www.msha.gov](http://www.msha.gov).

. These materials do not need to be modified by operators. Operators are permitted to use other training methods as long as the training content meets MSHA's informational requirements. Tables 7.1 and 7.2 report the annual recurring cost estimates for new miner training by mine type and size. Table 8 provides the aggregate cost estimates for this requirement.

MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that also have a new hire training that would meet this proposed requirement.

MSHA also proposes that all non-supervisory miners receive a minimum of 30 minutes of education annually to review the mine operator's alcohol- and drug-free mine policy. This training can be delivered as part of the annual refresher training of miners required in 30 CFR parts 46 and 48 but can not displace other required training. The time allotted to alcohol and drug training would be in addition to the total number of hours required under parts 46 and 48.

MSHA estimates the cost for a non-supervisory training is related to the 30 minutes of nonproduction time to attend this training. MSHA used an hourly compensation rate of \$32.47 for coal miners and coal mine contractors and \$25.61 for M/NM miners and M/NM mine contractors.



To mitigate training costs to operators, MSHA developed training materials for operators to use to meet the requirements for the annual training, which are available from MSHA or on the web site at [www.msha.gov](http://www.msha.gov).

. These materials do not need to be modified by operators. Operators are permitted to use other training methods as long as the training content meets MSHA's informational requirements. Tables 9.1 and 9.2 report the annual recurring cost estimates for annual training by mine type and size. Table 10 provides the aggregate cost estimates for this requirement.

MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that have an annual training that would meet this proposed requirement.

**Table 7.1: Annual Recurring Costs for Mine Operators to Train Newly Hired Miners by Mine Type and Size**

Coal				
Size	Number of Mines	Number of Miners	Number of New Miners	New Miner Training Cost
Small (<20)	1,127	8,088	566	\$15,626
Large(20-500)	872	62,600	4,382	\$99,598
Large (>500)	14	9,568	670	\$3,262
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>5,618</b>	<b>\$118,486</b>

  

M/NM				
Size	Number of Mines	Number of Miners	Number of New Miners	New Miner Training Cost
Small (<20)	10,964	54,455	3,812	\$82,978
Large(20-500)	1,784	86,851	6,080	\$108,988
Large (>500)	25	18,338	1,284	\$4,931
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>11,175</b>	<b>\$196,898</b>

**Table 7.2: Annual Recurring Costs for Mine Contractors to Train Newly Hired Miners by Mine Type and Size**

Coal Contractors				
Size	Number of Mines	Number of Miners	Number of New Miners	New Miner Training Cost
Small (<20)	2,537	11,411	799	\$22,046
Large(20-500)	428	24,463	1,712	\$38,921
Large (>500)	1	353	25	\$120
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>2,536</b>	<b>\$61,087</b>

  

M/NM Contractors				
Size	Number of Mines	Number of Miners	Number of New Miners	New Miner Training Cost
Small (<20)	4,625	22,099	1,547	\$33,674
Large(20-500)	670	35,925	2,515	\$45,082
Large (>500)	7	6,309	442	\$1,697
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>4,503</b>	<b>\$80,453</b>

**Table 8: Aggregate Annual Recurring Costs for Mine Operators, Including Contractors, to Train Newly Hired Miners, by Size**

	Coal and M/NM(including contractors)			
Size	Number of Mines	Number of Miners	Number of New Miners	New Miner Training Cost
Small (<20)	19,253	96,053	6,724	\$154,324
Large(20-500)	3,754	209,839	14,689	\$292,590
Large (>500)	47	34,568	2,420	\$10,010
Total	23,054	340,460	23,832	\$456,924

**Table 9.1: Annual Recurring Costs for Mine Operators  
Annual Non-Supervisor Miner Training  
by Mine Type and Size**

Coal					
Size	Number of Mines	Number of Miners	Number of Nonsupervisory miners	Number of Supervisors	Nonsupervisory Training Cost
Small (<20)	1,127	8,088	7,166	922	\$98,888
Large(20-500)	872	62,600	54,664	7,936	\$621,234
Large (>500)	14	9,568	8,290	1,278	\$20,188
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>70,120</b>	<b>10,136</b>	<b>\$740,309</b>

  

M/NM					
Size	Number of Mines	Number of Miners	Number of Nonsupervisory miners	Number of Supervisors	Nonsupervisory Training Cost
Small (<20)	10,964	54,455	47,937	6,518	\$521,754
Large(20-500)	1,784	86,851	76,646	10,205	\$687,014
Large (>500)	25	18,338	16,210	2,128	\$31,135
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>140,792</b>	<b>18,852</b>	<b>\$1,239,903</b>

**Table 9.2: Annual Recurring Costs for Mine Contractors  
Annual Non-Supervisor Miner Training,  
by Mine Type and Size**

Coal Contractors					
Size	Number of Mines	Number of Miners	Number of Nonsupervisory miners	Number of Supervisors	Nonsupervisory Training Cost
Small (<20)	2,537	11,411	10,270	1,141	\$141,722
Large(20-500)	428	24,463	22,017	2,446	\$250,209
Large (>500)	1	353	318	35	\$774
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>32,604</b>	<b>3,623</b>	<b>\$392,705</b>

  

M/NM Contractors					
Size	Number of Mines	Number of Miners	Number of Nonsupervisory miners	Number of Supervisors	Nonsupervisory Training Cost
Small (<20)	4,625	22,099	19,889	2,210	\$216,478
Large(20-500)	670	35,925	32,333	3,593	\$289,812
Large (>500)	7	6,309	5,678	631	\$10,906
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>57,900</b>	<b>6,433</b>	<b>\$517,197</b>

**Table 10: Aggregate Annual Recurring Costs for Mine Operators (Including Contractors)  
Annual Non-Supervisor Miner Training, by Size**

	Coal and M/NM (including contractors)				
Size	Number of Mines	Number of Miners	Number of Nonsupervisory miners	Number of Supervisors	Nonsupervisory Training Cost
Small (<20)	19,253	96,053	85,262	10,792	\$978,842
Large(20-500)	3,754	209,839	185,659	24,180	\$1,848,269
Large (>500)	47	34,568	30,496	4,072	\$63,003
<b>Total</b>	<b>23,054</b>	<b>340,460</b>	<b>301,416</b>	<b>39,044</b>	<b>\$2,890,113</b>

## **Section 66.203- Training Program for Supervisors**

MSHA's proposed rule would require each mine operator to implement a training program for supervisors to make them aware of their responsibilities in ensuring compliance with the rule; help them recognize and deal with miners who have performance problems that may be related to alcohol and other drugs; understand how to refer miners to available assistance; and know how to make determinations for requiring a reasonable suspicion or post-accident test.

The training requirements have two components: a first-year initial two-hour training; and an annual one-hour refresher training that is to include topics covered in the non-supervisory training course. MSHA believes that specific training requirements are necessary to assure competence in making determinations about reasonable suspicion of alcohol and drug misuse and post-accident testing. At a minimum, the initial two-hour training would include a review of the mine operator's alcohol- and drug-free mine policy; a review of the physical, behavioral, and performance indicators of alcohol or drug use or impairment; and how to detect and document the signs of alcohol or drug misuse. Training would also include post-accident determinations and procedures to follow when such determinations are made. To help mine operators with this training requirement, MSHA has developed training materials that mine operators may use to meet the requirements for the supervisory miner training. These materials are available from MSHA or on the web site at [www.msha.gov](http://www.msha.gov).

MSHA estimates the costs for the supervisor training is related to the nonproduction time devoted to training. MSHA used an hourly compensation rate of \$75.02 for a coal mine supervisor or a coal mine contractor supervisor, and \$60.34 for a M/NM mine supervisor or a M/NM contractor supervisor. The percentage of miners who are supervisors is approximately 15 percent for underground coal mines; 10 percent for surface coal mines; 10 percent for underground M/NM mines; 12 percent for surface M/NM mines; and 10 percent for all contractors.

Tables 11.1 and 11.2 present the first-year costs for the initial two-hour training by type of mine operation and size. Table 12 provides the aggregate cost estimate by size. Tables 13.1 and 13.2 report the annual recurring costs associated with the yearly required alcohol- and drug-free mine policy training for supervisory mine personnel. Table 14 provides the aggregate cost estimate by size.

MSHA requests comments on its estimate of the number of mine operations with existing alcohol and drug-free mine programs that have supervisory training that would meet this proposed requirement.

**Table 11.1: First-year Costs for Mine Operators  
Initial Two-Hour Education and Awareness Program for Miner Supervisors,  
by Mine Type and Size**

Coal			
Size	Number of Mines	Number of Supervisors	Initial Two-hour Supervisor Training Cost
Small (<20)	1,127	922	\$117,599
Large(20-500)	872	7,936	\$833,460
Large (>500)	14	1,278	\$28,768
<b>Total</b>	<b>2,013</b>	<b>10,136</b>	<b>\$979,828</b>

  

M/NM			
Size	Number of Mines	Number of Supervisors	Initial Two-hour Supervisor Training Cost
Small (<20)	10,964	6,518	\$668,644
Large(20-500)	1,784	10,205	\$862,100
Large (>500)	25	2,128	\$38,521
<b>Total</b>	<b>12,773</b>	<b>18,852</b>	<b>\$1,569,265</b>

**Table 11.2: First-year Costs for Mine Contractors  
Initial Two-Hour Education and Awareness Program for Miner Supervisors,  
by Mine Type and Size**

Coal Contractors			
Size	Number of Mines	Number of Supervisors	Initial Two-hour Supervisor Training Cost
Small (<20)	2,537	1,141	\$145,529
Large(20-500)	428	2,446	\$256,930
Large (>500)	1	35	\$794
<b>Total</b>	<b>2,966</b>	<b>3,623</b>	<b>\$403,254</b>

  

M/NM Contractors			
Size	Number of Mines	Number of Supervisors	Initial Two-hour Supervisor Training Cost
Small (<20)	4,625	2,210	\$226,687
Large(20-500)	670	3,593	\$303,480
Large (>500)	7	631	\$11,421
<b>Total</b>	<b>5,302</b>	<b>6,433</b>	<b>\$541,588</b>

**Table 12: Aggregate of First-Year Costs for Mine Operators, Including Contractors, Initial Two-Hour Education and Awareness Program for Miner Supervisors, by Size**

Coal and M/NM (including contractors)			
Size	Number of Mines	Number of Supervisors	Initial Two-hour Supervisor Training Cost
Small (<20)	19,253	10,792	\$1,158,460
Large(20-500)	3,754	24,180	\$2,255,970
Large (>500)	47	4,072	\$79,504
<b>Total</b>	<b>23,054</b>	<b>39,044</b>	<b>\$3,493,934</b>



**Table 13.1: Annual Recurring Costs for Mine Operators  
Annual Education and Awareness Program for Miner Supervisors,  
by Mine Type and Size**

Coal			
Size	Number of Mines	Number of Supervisors	Annual Supervisor Training Cost
Small (<20)	1,127	922	\$58,800
Large(20-500)	872	7,936	\$416,730
Large (>500)	14	1,278	\$14,384
<b>Total</b>	<b>2,013</b>	<b>10,136</b>	<b>\$489,914</b>

  

M/NM			
Size	Number of Mines	Number of Supervisors	Annual Supervisor Training Cost
Small (<20)	10,964	6,518	\$334,322
Large(20-500)	1,784	10,205	\$431,050
Large (>500)	25	2,128	\$19,261
<b>Total</b>	<b>12,773</b>	<b>18,852</b>	<b>\$784,633</b>

**Table 13.2: Annual Recurring Costs for Mine Contractors  
Annual Education and Awareness Program for Miner Supervisors,  
by Mine Type and Size**

Coal Contractors			
Size	Number of Mines	Number of Supervisors	Annual Supervisor Training Cost
Small (<20)	2,537	1,141	\$72,765
Large(20-500)	428	2,446	\$128,465
Large (>500)	1	35	\$397
<b>Total</b>	<b>2,966</b>	<b>3,623</b>	<b>\$201,627</b>

  

M/NM Contractors			
Size	Number of Mines	Number of Supervisors	Annual Supervisor Training Cost
Small (<20)	4,625	2,210	\$113,344
Large(20-500)	670	3,593	\$151,740
Large (>500)	7	631	\$5,710
<b>Total</b>	<b>5,302</b>	<b>6,433</b>	<b>\$270,794</b>

**Table 14: Aggregate Recurring Costs for Mine Operators, Including Contractors, Annual Education and Awareness Program for Miner Supervisors, by Size**

Coal and M/NM (including contractors)			
Size	Number of Mines	Number of Supervisors	Annual Supervisor Training Cost
Small (<20)	19,253	10,792	\$579,230
Large(20-500)	3,754	24,180	\$1,127,985
Large (>500)	47	4,072	\$39,752
<b>Total</b>	<b>23,054</b>	<b>39,044</b>	<b>\$1,746,967</b>

## **Subpart D – Alcohol – and Drug-Testing Requirements**

The purpose of this proposed rule is to help prevent accidents, injuries, and fatalities resulting from the use of prohibited substances by miners who perform safety-sensitive job duties that, if performed in an unsafe manner, could result in hazardous consequences.

The proposed rule would require alcohol- and drug-testing to be conducted on all miners who perform safety-sensitive job duties and their supervisors. For purposes of this rule, this includes all miners who are currently required to take comprehensive safety training under 30 CFR parts 46 and 48. Job duties that are strictly clerical or administrative would not be considered safety-sensitive and those who perform such duties would not be subject to testing.

In this PREA, MSHA assumes that mine operators would use service agents to fulfill all alcohol- and drug-testing requirements. Service agents typically provide a service for a fee that is billed at a bundled cost per test to include test collection, analysis, testing confirmation and Medical Review Officer (MRO) review. Internet-based sources report that service agents typically provide job site testing at an average cost of \$55 for a 10-panel urine drug screen and \$35 for an alcohol screen. For collection that occurs at the service agent's job site, a 10-panel urine drug screens costs an average \$35 and \$20 for an alcohol screen.

As noted previously, MSHA assumes that 85 percent of operators with 501 or more employees; 30 percent of operators with 20-500 employees; and 15 percent of operators with less than 20 employees have an existing alcohol- and drug-free mine program in place that would meet this proposed requirement. MSHA estimates the costs for the various types of alcohol and drug tests using these assumptions. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that include the various categories of alcohol- and drug-testing proposed in this rulemaking.

## **Section 66.304 – Pre-employment Testing**

This proposed rule requires applicants to receive pre-employment testing for alcohol and drug use and produce a negative result before performing safety-sensitive job duties. Pre-employment testing includes testing new applicants as well as incumbent miners prior to switching from positions that do not involve safety-sensitive job duties to positions that involve such duties.

MSHA estimates annual new hires using a 7 percent turnover rate for all to determine the annual rate that would require pre-employment testing. MSHA projects that this rate would be constant in outlying years. While not all of the new hires would perform safety-sensitive job duties, MSHA believes that a significant majority would perform safety-sensitive job duties. MSHA believes that the number of incumbent miners requiring testing would be insignificant; therefore, an estimate for this group was not calculated.

MSHA assumes that pre-employment testing would occur on the service agent's job site. MSHA estimates that the fee for an off-site drug test is \$35 for a drug test and \$20 for an alcohol screen.

Tables 15.1 and 15.2 present the annual recurring cost for pre-employment alcohol- and drug-testing by mine type and size. Table 16 provides the aggregate cost estimate by size. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that include pre-employment alcohol- and drug-testing; cost estimates for alcohol- and drug-testing; and assumptions made to calculate the annual new hire rate.

**Table 15.1: Annual Recurring Costs for Mine Operators  
Pre-employment Testing for New Hires,  
by Mine Type and Size**

Coal						
Size	Number of Mines	Number of Miners	Number of New Miners	Cost of Drug Test	Cost of Alcohol Test	Total Costs Pre-employment Test
Small (<20)	1,127	8,088	566	\$35	\$20	\$26,468
Large(20-500)	872	62,600	4,382	\$35	\$20	\$168,707
Large (>500)	14	9,568	670	\$35	\$20	\$5,526
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>5,618</b>			<b>\$200,701</b>

  

M/NM						
Size	Number of Mines	Number of Miners	Number of New Miners	Cost of Drug Test	Cost of Alcohol Test	Total Costs Pre-employment Test
Small (<20)	10,964	54,455	3,812	\$35	\$20	\$178,204
Large(20-500)	1,784	86,851	6,080	\$35	\$20	\$234,063
Large (>500)	25	18,338	1,284	\$35	\$20	\$10,590
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>11,175</b>			<b>\$422,858</b>

**Table 15.1: Annual Recurring Costs for Mine Contractors  
Pre-employment Testing for New Hires,  
by Mine Type and Size**

Coal Contractors						
Size	Number of Mines	Number of Miners	Number of New Miners	Cost of Drug Test	Cost of Alcohol Test	Total Costs Pre-employment Test
Small (<20)	2,537	11,411	799	\$35	\$20	\$37,342
Large(20-500)	428	24,463	1,712	\$35	\$20	\$65,928
Large (>500)	1	353	25	\$35	\$20	\$204
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>2,536</b>			<b>\$103,474</b>

  

M/NM Contractors						
Size	Number of Mines	Number of Miners	Number of New Miners	Cost of Drug Test	Cost of Alcohol Test	Total Costs Pre-employment Test
Small (<20)	4,625	22,099	1,547	\$35	\$20	\$72,319
Large(20-500)	670	35,925	2,515	\$35	\$20	\$96,818
Large (>500)	7	6,309	442	\$35	\$20	\$3,643
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>4,503</b>			<b>\$172,780</b>

**Table 16: Aggregate Annual Recurring Costs for Mine Operators, Including Contractors, Pre-employment Testing for New Hires, by Size**

	Coal and M/NM (including contractors)					
Size	Number of Mines	Number of Miners	Number of New Miners	Cost of Drug Test	Cost of Alcohol Test	Total Costs Pre-employment Test
Small (<20)	19,253	96,053	6,724	\$35	\$20	\$314,333
Large(20-500)	3,754	209,839	14,689	\$35	\$20	\$565,516
Large (>500)	47	34,568	2,420	\$35	\$20	\$19,963
Total	23,054	340,460	23,832			\$899,813

## **Section 66.305 – Random Testing**

Random, unannounced testing for the use of both alcohol and drugs is required annually for 10 percent of miners at each mine who perform safety-sensitive duties and their supervisors under this proposed rule. MSHA assumes that mine operators would use service agents to fulfill all alcohol- and drug-testing requirements. Service agents typically provide a service for a fee that is billed at a bundled cost per test to include test collection, analysis, testing confirmation and Medical Review Officer (MRO) review. These service agents typically provide job site testing at an average cost of \$55 for a 10-panel urine drug screen and \$35 for an alcohol screen.

To estimate the collection costs, MSHA assumes 30 minutes of nonproduction time is needed for testing. For non-supervisory miners, MSHA used an hourly compensation rate of \$32.47 for coal miners and coal mine contractors, and \$25.61 for M/NM miners and M/NM mine contractors. For mine supervisors, cost estimates were calculated using an hourly compensation rate of \$75.02 for a coal mine supervisor and a coal mine contractor supervisor; and \$60.34 for a M/NM mine supervisor and a M/NM contractor supervisor. The percentage of miners who are supervisors is approximately 15 percent for underground coal mines; 10 percent for surface coal mines; 10 percent for underground M/NM mines; 12 percent for surface M/NM mines; and 10 percent for all contractors.

As noted previously, MSHA assumes that 85 percent of operators with 501 or more employees; 30 percent of operators with 20-500 employees; and 15 percent of operators with less than 20 employees have an alcohol- and drug-free program in place that includes random testing for both alcohol and drugs.

Tables 17.1 and 17.2 present the annual recurring cost for random alcohol- and drug-testing by mine type and size. Table 18 provides the aggregate cost estimate by size. Using these assumptions, MSHA estimates the costs for the various types of alcohol and drug tests. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that meet this proposed requirement.

## **Section 66.306 – Post-accident Testing**

Under the proposed rule, mine operators would be required to conduct alcohol- and drug-testing after certain accidents or workplace injuries occur. Accidents and injuries that would require post-accident testing are: (1) occupational injuries requiring medical treatment beyond first aid and (2) accidents that occur while a miner is operating a piece of equipment or performing a work activity that causes or contributes to an accident, injury or death.

MSHA proposes that all surviving miners involved in any work activity that could have contributed to the accident or occupational injury be tested for alcohol and drug use as soon as practical, but no later than eight hours after the incident for alcohol and 32 hours after the incident for drugs. MSHA assumes that mine operators would use service agents to conduct post-accident testing on the mine operator's job site. Post-accident testing would likely occur on the mine operator's job site at an average cost of \$55 for a 10-panel urine drug screen and \$35 for an alcohol screen.

To estimate the number of post-accident tests that would be required under the proposed rule, MSHA used recent injury and illness data from the Bureau of Labor Statistics (BLS). BLS reported 67 mining fatalities and 9,400 private sector injuries (excluding oil and gas) in 2006. Based on 2006 rates, MSHA assumes that 2.8 percent of all miners would be required to receive post-accident testing. MSHA assumes these rates would remain unchanged in future years.

As noted previously, MSHA assumes that 85 percent of operators with 501 or more employees; 30 percent of operators with 20-500 employees; and 15 percent of operators with less than 20 employees have an alcohol- and drug-free mine program in place that includes post-accident testing.

Tables 19.1 and 19.2 present the annual recurring cost for post-accident alcohol- and drug-testing by mine type and size and Table 20 provides the aggregate cost estimate by size. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that include post-accident testing.

### **Section 66.307 – Reasonable Suspicion Testing**

This proposed rule requires a mine operator to conduct an alcohol and drug test when a supervisor documents observable signs and symptoms that lead the supervisor to suspect alcohol and/or drug use. MSHA estimates reasonable suspicion testing would be infrequent, requiring mine operators to test less than half of one percent of miners performing safety-sensitive duties.

As with random and post-accident testing, MSHA assumes that mine operators would use service agents to fulfill all alcohol- and drug-testing requirements. These service agents typically provide job site testing at an average cost of \$55 for a 10-panel urine drug screen and \$35 for an alcohol screen.

To estimate the collection costs, MSHA also assumes 30 minutes of nonproduction time is needed for testing. For non-supervisory miners, MSHA used an hourly compensation rate of \$32.47 for coal miners and coal mine contractors, and \$25.61 for M/NM miners and M/NM mine contractors. For



mine supervisors, cost estimates were calculated using an hourly compensation rate of \$75.02 for a coal mine supervisor and a coal mine contractor supervisor and \$60.34 for a M/NM mine supervisor and a M/NM contractor supervisor. The percentage of miners who are supervisors is approximately 15 percent for underground coal mines; 10 percent for surface coal mines; 10 percent for underground M/NM mines; 12 percent for surface M/NM mines; and 10 percent for all contractors. As noted previously, MSHA assumes that 85 percent of operators with 501 or more employees; 30 percent of operators with 20-500 employees; and 15 percent of operators with less than 20 employees have an alcohol- and drug-free mine program in place that includes reasonable suspicion testing.

Tables 21.1 and 22.2 present the annual recurring cost for reasonable suspicion alcohol- and drug-testing by mine type and size. Table 22 provides the aggregate cost estimate by size. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that include reasonable suspicion testing.

## **Subpart E - Operator Responsibilities, Actions, and Consequences**

### **Section 66.406 - Return-to-duty and Follow-up Testing**

A return-to-duty test is a one-time announced test that is required when a miner who tested positive in the past has completed required treatment and is ready to return to a position that involves performing safety-sensitive job duties. Before resuming performance of safety-sensitive job duties, a miner must produce an alcohol test with a blood alcohol concentration (BAC) of less than 0.04 percent and a negative return-to-duty drug test.

Data from the 2006 *National Survey on Drug Use and Health* show that 7.3 percent of workers in mining used illicit drugs over the last month and 13.3 percent had heavy alcohol use in the past month; therefore, MSHA assumes that 10 percent of miners that received random, post-accident, or reasonable suspicion testing would produce a verified positive result. MSHA assumes that return-to-duty testing would occur on the service agent's job site with fees of \$35 for a urine drug screen and \$20 for an alcohol screen. Tables 23.1 and 23.2 present the annual recurring cost for return-to-duty alcohol- and drug-testing by mine type and size. Table 24 provides the aggregate cost estimate by size. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that include return-to-duty testing.

Follow-up testing would be conducted periodically after a miner returns to work after completing treatment. Follow-up testing would be conducted on

an unannounced, unpredictable basis for the first 12-months following a miner's return to duty. A minimum of six tests must be conducted.

As with random, post-accident, and reasonable suspicion testing, MSHA assumes that mine operators would use service agents to fulfill all alcohol- and drug-testing requirements at the mine operator's job site at an average cost of \$55 for a drug screen and \$35 for an alcohol screen.

MSHA also assumes 30 minutes of nonproduction time is needed for testing. For non-supervisory miners, MSHA used an hourly compensation rate of \$32.47 for coal miners and coal mine contractors and \$25.61 for M/NM miners and M/NM mine contractors. For mine supervisors, cost estimates were calculated using an hourly compensation rate of \$75.02 for a coal mine supervisor and a coal mine contractor supervisor and \$60.34 for a M/NM mine supervisor and a M/NM contractor supervisor.

Tables 25.1 and 25.2 present the annual recurring cost for follow-up alcohol- and drug-testing by mine type and size. Table 26 provides the aggregate cost estimate by size. MSHA requests comments on its estimate of the number of mine operations with existing alcohol- and drug-free mine programs that include follow-up testing.

**Table 17.1: Annual Recurring Costs for Mine Operators  
Random Testing, by Mine Type and Size**

Coal											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 10 percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Random Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs of Tests and Collection
Small (<20)	1,127	8,088	7,166	922	809	\$55	\$35	\$61,873	\$12,829	\$12,829	\$87,531
Large(20-500)	872	62,600	54,664	7,936	6,260	\$55	\$35	\$394,380	\$82,960	\$82,960	\$560,300
Large (>500)	14	9,568	8,290	1,278	957	\$55	\$35	\$12,917	\$2,738	\$2,738	\$18,393
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>70,120</b>	<b>10,136</b>	<b>8,026</b>			<b>\$469,170</b>	<b>\$98,527</b>	<b>\$98,527</b>	<b>\$666,223</b>
M/NM											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 10 percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Random Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs of Tests and Collection
Small (<20)	10,964	54,455	47,937	6,518	5,446	\$55	\$35	\$416,581	\$68,891	\$68,891	\$554,363
Large(20-500)	1,784	86,851	76,646	10,205	8,685	\$55	\$35	\$547,161	\$90,254	\$90,254	\$727,668
Large (>500)	25	18,338	16,210	2,128	1,834	\$55	\$35	\$24,756	\$4,077	\$4,077	\$32,909
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>140,793</b>	<b>18,851</b>	<b>15,964</b>			<b>\$988,498</b>	<b>\$163,221</b>	<b>\$163,221</b>	<b>\$1,314,940</b>

**Table 17.2: Annual Recurring Costs for Mine Contractors  
Random Testing, by Mine Type and Size**

Coal Contractors											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 10 percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Random Drug Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs of Tests and Collection
Small (<20)	2,537	11,411	10,270	1,141	1,141	\$55	\$35	\$87,287	\$17,810	\$17,810	\$122,907
Large(20-500)	428	24,463	22,017	2,446	2,446	\$55	\$35	\$154,098	\$31,444	\$31,444	\$216,985
Large (>500)	1	353	318	35	35	\$55	\$35	\$473	\$97	\$97	\$667
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>32,605</b>	<b>3,622</b>	<b>3,622</b>			<b>\$241,857</b>	<b>\$49,351</b>	<b>\$49,351</b>	<b>\$340,559</b>
M/NM Contractors											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 10 percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Random Drug Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs of Tests and Collection
Small (<20)	4,625	22,099	19,889	2,210	2,210	\$55	\$35	\$169,057	\$27,315	\$27,315	\$223,687
Large(20-500)	670	35,925	32,333	3,593	3,593	\$55	\$35	\$226,328	\$36,568	\$36,568	\$299,464
Large (>500)	7	6,309	5,678	631	631	\$55	\$35	\$8,517	\$1,376	\$1,376	\$11,269
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>57,900</b>	<b>6,433</b>	<b>6,433</b>			<b>\$403,902</b>	<b>\$65,259</b>	<b>\$65,259</b>	<b>\$534,421</b>

**Table 18: Aggregate Annual Recurring Costs for Mine Operators, Including Contractors,  
Random Testing, by Size**

Size	Coal and M/NM (including contractors)										
	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 10 percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Random Drug Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs of Tests and Collection
Small (<20)	19,253	96,053	58,454	7,550	9,605	\$55	\$35	\$734,798	\$126,845	\$126,845	\$988,488
Large(20-500)	3,754	209,839	137,349	18,251	20,984	\$55	\$35	\$1,321,967	\$241,225	\$241,225	\$1,804,418
Large (>500)	47	34,568	25,166	3,516	3,457	\$55	\$35	\$46,663	\$8,288	\$8,288	\$63,238
<b>Total</b>	<b>23,054</b>	<b>340,460</b>	<b>220,968</b>	<b>29,317</b>	<b>34,045</b>			<b>\$2,103,427</b>	<b>\$376,358</b>	<b>\$376,358</b>	<b>\$2,856,143</b>

**Table 19.1: Annual Recurring Costs for Mine Operators  
Post-Accident Testing, by Mine Type and Size**

Coal											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 2.8 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Post-Accident Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	1,127	8,088	7,166	922	226	\$55	\$35	\$17,324	\$3,592	\$3,592	\$24,509
Large(20-500)	872	62,600	54,664	7,936	1,753	\$55	\$35	\$110,426	\$23,229	\$23,229	\$156,884
Large (>500)	14	9,568	8,290	1,278	268	\$55	\$35	\$3,617	\$767	\$767	\$5,150
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>70,120</b>	<b>10,136</b>	<b>2,247</b>			<b>\$131,368</b>	<b>\$27,587</b>	<b>\$27,587</b>	<b>\$186,542</b>
M/NM											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 2.8 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Post-Accident Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	10,964	54,455	47,937	6,518	1,525	\$55	\$35	\$116,643	\$19,289	\$19,289	\$155,222
Large(20-500)	1,784	86,851	76,646	10,205	2,432	\$55	\$35	\$153,205	\$25,271	\$25,271	\$203,747
Large (>500)	25	18,338	16,210	2,128	513	\$55	\$35	\$6,932	\$1,141	\$1,141	\$9,215
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>140,793</b>	<b>18,851</b>	<b>4,470</b>			<b>\$276,780</b>	<b>\$45,702</b>	<b>\$45,702</b>	<b>\$368,183</b>

**Table 19.2: Annual Recurring Costs for Mine Contractors  
Post-Accident Testing, by Mine Type and Size**

Coal Contractors											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 2.8 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Post-Accident Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	2,537	11,411	10,270	1,141	320	\$55	\$35	\$24,442	\$4,987	\$4,987	\$34,416
Large(20-500)	428	24,463	22,017	2,446	685	\$55	\$35	\$43,153	\$8,804	\$8,804	\$60,761
Large (>500)	1	353	318	35	10	\$55	\$35	\$133	\$27	\$27	\$188
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>32,605</b>	<b>3,622</b>	<b>1,014</b>			<b>\$67,729</b>	<b>\$13,818</b>	<b>\$13,818</b>	<b>\$95,365</b>

M/NM Contractors											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 2.8 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Post-Accident Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	4,625	22,099	19,889	2,210	619	\$55	\$35	\$47,336	\$7,648	\$7,648	\$62,632
Large(20-500)	670	35,925	32,333	3,593	1,006	\$55	\$35	\$63,372	\$10,239	\$10,239	\$83,850
Large (>500)	7	6,309	5,678	631	177	\$55	\$35	\$2,385	\$385	\$385	\$3,155
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>57,900</b>	<b>6,433</b>	<b>1,801</b>			<b>\$113,093</b>	<b>\$18,273</b>	<b>\$18,273</b>	<b>\$149,638</b>

**Table 20: Aggregate Annual Recurring Costs for Mine Operators, Including Contractors,  
Post-Accident Testing, by Size**

Coal and M/NM (including contractors)											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at 2.8 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Post-Accident Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	19,253	96,053	85,262	10,791	2,689	\$55	\$35	205,746	35,517	35,517	276,779
Large(20-500)	3,754	209,839	185,660	24,179	5,875	\$55	\$35	370,156	67,543	67,543	505,242
Large (>500)	47	34,568	30,496	4,072	968	\$55	\$35	13,067	2,321	2,321	17,708
<b>Total</b>	<b>23,054</b>	<b>340,460</b>	<b>301,418</b>	<b>39,042</b>	<b>9,533</b>			<b>\$588,968</b>	<b>\$105,380</b>	<b>\$105,380</b>	<b>\$799,729</b>



**Table 21.1: Annual Recurring Costs for Mine Operators  
Reasonable Suspicion Testing, by Mine Type and Size**

Coal											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at .5 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Reasonable Suspicion Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	1,127	8,088	7,166	922	40	\$55	\$35	\$3,094	\$567	\$567	\$4,228
Large(20-500)	872	62,600	54,664	7,936	313	\$55	\$35	\$19,719	\$3,216	\$3,216	\$26,151
Large (>500)	14	9,568	8,290	1,278	48	\$55	\$35	\$646	\$137	\$137	\$920
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>70,120</b>	<b>10,136</b>	<b>401</b>			<b>\$23,459</b>	<b>\$3,920</b>	<b>\$3,920</b>	<b>\$31,299</b>
M/NM											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at .5 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Reasonable Suspicion Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	10,964	54,455	47,937	6,518	272	\$55	\$35	\$20,829	\$3,445	\$3,445	\$27,718
Large(20-500)	1,784	86,851	76,646	10,205	434	\$55	\$35	\$27,358	\$4,513	\$4,513	\$36,383
Large (>500)	25	18,338	16,210	2,128	92	\$55	\$35	\$1,238	\$204	\$204	\$1,645
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>140,793</b>	<b>18,851</b>	<b>798</b>			<b>\$49,425</b>	<b>\$8,161</b>	<b>\$8,161</b>	<b>\$65,747</b>

**Table 21.2: Annual Recurring Costs for Mine Contractors  
Reasonable Suspicion Testing, by Mine Type and Size**

Coal Contractors											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at .5 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Reasonable Suspicion Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	2,537	11,411	10,270	1,141	57	\$55	\$35	\$4,365	\$891	\$891	\$6,146
Large(20-500)	428	24,463	22,017	2,446	122	\$55	\$35	\$7,706	\$1,572	\$1,572	\$10,850
Large (>500)	1	353	318	35	2	\$55	\$35	\$24	\$5	\$5	\$34
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>32,605</b>	<b>3,622</b>	<b>181</b>			<b>\$12,094</b>	<b>\$2,468</b>	<b>\$2,468</b>	<b>\$17,029</b>
M/NM Contractors											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at .5 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Reasonable Suspicion Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	4,625	22,099	19,889	2,210	110	\$55	\$35	\$8,453	\$1,366	\$1,366	\$11,184
Large(20-500)	670	35,925	32,333	3,593	180	\$55	\$35	\$11,316	\$1,828	\$1,828	\$14,973
Large (>500)	7	6,309	5,678	631	32	\$55	\$35	\$426	\$69	\$69	\$563
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>57,900</b>	<b>6,433</b>	<b>322</b>			<b>\$20,195</b>	<b>\$3,263</b>	<b>\$3,263</b>	<b>\$26,721</b>

**Table 22: Aggregate Annual Recurring Costs for Mine Operators, Including Contractors,  
Reasonable Suspicion Testing, by Mine Type and Size**

Coal and M/NM (including contractors)											
Size	Number of Mines	Number of Miners	Number of Nonsupervisory Miners	Number of Supervisory Miners	Number of Miners Tested at .5 Percent	Cost of Drug Test	Cost of Alcohol Test	Total Cost Reasonable Suspicion Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs of Tests and Collection
Small (<20)	19,253	96,053	85,262	10,791	480	\$55	\$35	36,740	6,268	6,268	49,276
Large(20-500)	3,754	209,839	185,660	24,179	1,049	\$55	\$35	66,099	11,129	11,129	88,358
Large (>500)	47	34,568	30,496	4,072	173	\$55	\$35	2,333	414	414	3,162
<b>Total</b>	<b>23,054</b>	<b>340,460</b>	<b>301,418</b>	<b>39,042</b>	<b>1,702</b>			<b>\$105,173</b>	<b>\$17,812</b>	<b>\$17,812</b>	<b>\$140,797</b>

**Table 23.1: Annual Recurring Costs for Mine Operators  
Return-to-duty Testing, by Mine Type and Size**

Coal									
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Total Miners Tested at 10 Percent Rate	Cost of Drug Test	Cost of Alcohol Test	Total Costs Return-to-Duty Tests and Collection
Small (<20)	1,127	8,088	81	23	4	108	\$35	\$20	\$5,029
Large(20-500)	872	62,600	626	175	31	833	\$35	\$20	\$32,054
Large (>500)	14	9,568	96	27	5	127	\$35	\$20	\$1,050
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>803</b>	<b>225</b>	<b>40</b>	<b>1,067</b>			<b>\$38,133</b>
M/NM									
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Total Miners Tested at 10 Percent Rate	Cost of Drug Test	Cost of Alcohol Test	Total Costs Return-to-Duty Tests and Collection
Small (<20)	10,964	54,455	545	152	27	724	\$35	\$20	\$33,859
Large(20-500)	1,784	86,851	869	243	43	1,155	\$35	\$20	\$44,472
Large (>500)	25	18,338	183	51	9	244	\$35	\$20	\$2,012
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>1,596</b>	<b>447</b>	<b>80</b>	<b>2,123</b>			<b>\$80,343</b>

**Table 23.2: Annual Recurring Costs for Mine Contractors  
Return-to-duty Testing, by Mine Type and Size**

Coal Contractors									
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Total Miners Tested at 10 Percent Rate	Cost of Drug Test	Cost of Alcohol Test	Total Costs Return-to-Duty Tests and Collection
Small (<20)	2,537	11,411	114	32	6	152	\$35	\$20	\$7,095
Large(20-500)	428	24,463	245	68	12	325	\$35	\$20	\$12,526
Large (>500)	1	353	4	1	0	5	\$35	\$20	\$39
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>362</b>	<b>101</b>	<b>18</b>	<b>482</b>			<b>\$19,660</b>
M/NM Contractors									
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Total Miners Tested at 10 Percent Rate	Cost of Drug Test	Cost of Alcohol Test	Total Costs Return-to-Duty Tests and Collection
Small (<20)	4,625	22,099	221	62	11	294	\$35	\$20	\$13,741
Large(20-500)	670	35,925	359	101	18	478	\$35	\$20	\$18,395
Large (>500)	7	6,309	63	18	3	84	\$35	\$20	\$692
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>643</b>	<b>180</b>	<b>32</b>	<b>856</b>			<b>\$32,828</b>

**Table 24: Aggregate Annual Recurring Costs for Mine Operators  
Return-to-duty Testing, by Size**

Coal and M/NM (including contractors)									
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Total Miners Tested	Cost of Drug Test	Cost of Alcohol Test	Total Costs Return-to-Duty Tests and Collection
Small (<20)	19,253	96,053	961	269	48	1,278	\$35	\$20	\$59,723
Large(20-500)	3,754	209,839	2,098	588	105	2,791	\$35	\$20	\$107,448
Large (>500)	47	34,568	346	97	17	460	\$35	\$20	\$3,793
<b>Total</b>	<b>23,054</b>	<b>340,460</b>	<b>3,405</b>	<b>953</b>	<b>170</b>	<b>4,528</b>			<b>\$170,964</b>

**Table 25.1: Annual Recurring Costs for Mine Operators  
Follow-up Testing, by Mine Type and Size**

Coal												
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Number of miners tested	Cost of Drug Test	Cost of Alcohol Test	Total Costs Follow-up Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	1,127	8,088	81	23	4	645	\$55	\$35	\$49,375	\$10,307	\$10,307	\$69,989
Large(20-500)	872	62,600	626	175	31	4,995	\$55	\$35	\$314,715	\$65,699	\$65,699	\$446,112
Large (>500)	14	9,568	96	27	5	764	\$55	\$35	\$10,308	\$2,152	\$2,152	\$14,611
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>803</b>	<b>225</b>	<b>40</b>	<b>6,404</b>			<b>\$374,398</b>	<b>\$78,158</b>	<b>\$78,158</b>	<b>\$530,713</b>
M/NM												
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Number of miners tested	Cost of Drug Test	Cost of Alcohol Test	Total Costs Follow-up Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	10,964	54,455	545	152	27	4,346	\$55	\$35	\$332,431	\$54,995	\$54,995	\$442,420
Large(20-500)	1,784	86,851	869	243	43	6,931	\$55	\$35	\$436,635	\$72,233	\$72,233	\$581,101
Large (>500)	25	18,338	183	51	9	1,463	\$55	\$35	\$19,756	\$3,268	\$3,268	\$26,292
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>1,596</b>	<b>447</b>	<b>80</b>	<b>12,740</b>			<b>\$788,822</b>	<b>\$130,496</b>	<b>\$130,496</b>	<b>\$1,049,813</b>

**Table 25.2: Annual Recurring Costs for Mine Contractors  
Follow-up Testing, by Mine Type and Size**

Coal Contractors												
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Number of miners tested	Cost of Drug Test	Cost of Alcohol Test	Total Costs Follow-up Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	2,537	11,411	114	32	6	911	\$55	\$35	\$69,661	\$14,542	\$14,542	\$98,745
Large(20-500)	428	24,463	245	68	12	1,952	\$55	\$35	\$122,985	\$25,674	\$25,674	\$174,333
Large (>500)	1	353	4	1	0	28	\$55	\$35	\$380	\$79	\$79	\$539
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>362</b>	<b>101</b>	<b>18</b>	<b>2,891</b>			<b>\$193,026</b>	<b>\$40,295</b>	<b>\$40,295</b>	<b>\$273,617</b>
M/NM Contractors												
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Number of miners tested	Cost of Drug Test	Cost of Alcohol Test	Total Costs Follow-up Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	4,625	22,099	221	62	11	1,764	\$55	\$35	\$134,908	\$22,318	\$22,318	\$179,544
Large(20-500)	670	35,925	359	101	18	2,867	\$55	\$35	\$180,609	\$29,878	\$29,878	\$240,366
Large (>500)	7	6,309	63	18	3	503	\$55	\$35	\$6,797	\$1,124	\$1,124	\$9,045
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>643</b>	<b>180</b>	<b>32</b>	<b>5,134</b>			<b>\$322,314</b>	<b>\$53,321</b>	<b>\$53,321</b>	<b>\$428,955</b>



**Table 26: Aggregate Annual Recurring Costs for Mine Operators, Including Contractors,  
Follow-up Testing, by Size**

Coal and M/NM (including contractors)												
Size	Number of Mines	Number of Miners	Random	Post-accident	Reasonable suspicion	Number of miners tested	Cost of Drug Test	Cost of Alcohol Test	Total Costs Follow-up Tests	Drug Collection Cost (30 minutes)	Alcohol Collection Cost (30 minutes)	Total Costs Tests and Collection
Small (<20)	19,253	96,053	961	269	48	7,665	\$35	\$20	\$586,375	\$102,162	\$102,162	\$790,698
Large(20-500)	3,754	209,839	2,098	588	105	16,745	\$35	\$20	\$1,054,945	\$193,484	\$193,484	\$1,441,912
Large (>500)	47	34,568	346	97	17	2,759	\$35	\$20	\$37,240	\$6,624	\$6,624	\$50,488
<b>Total</b>	<b>23,054</b>	<b>340,460</b>	<b>3,405</b>	<b>953</b>	<b>170</b>	<b>27,169</b>			<b>\$1,678,559</b>	<b>\$302,269</b>	<b>\$302,269</b>	<b>\$2,283,098</b>

## Subpart F - Recordkeeping and Reporting

This proposed rule requires mine operators to maintain records of the following information: the number of workers in safety-sensitive positions; the total number of miners tested; the number of verified positive alcohol and drug tests for each substance; which miners were tested; testing dates; and test results. Mine operators are also required to maintain records of instances in which post-accident or reasonable suspicion testing is not conducted within the timeframes required by the rule. Such records should include an explanation of the reasons why testing was not conducted as required. Mine operators would be required to retain these records for at least three years.

In addition, the proposed rule would require each mine operator to develop a written policy statement. The first-year cost analysis associated with this requirement is found in section 66.201. However, MSHA believes there may be other costs related to the annual maintenance of the written policy.

MSHA based its recordkeeping costs on the following:

1. The completion of 201,618 Alcohol Testing Forms and federal Custody and Control Forms (CCF) each year.

For the alcohol testing forms, MSHA estimated it would take 0.167 hours per test to review instructions and record the information on the form as well as gather and maintain the records. MSHA used a composite hourly compensation rate of \$50 to estimate burden costs.

For the CCF forms used in drug testing, MSHA estimated it would take 0.25 hours per test to review instructions and record the information on the form as well as gather and maintain the records. MSHA used a composite hourly compensation rate of \$50 to estimate burden costs.

2. The annual maintenance for non-substantive changes of the written policy. MSHA estimated it would take 0.167 hours annually to maintain the policy. MSHA used an hourly compensation rate of \$25 for a clerical staff person to estimate burden costs.
3. The annual recordkeeping to maintain alcohol- and drug-testing records is estimated at 0.167 burden hours per mine as a majority of the information will be reported on the alcohol- and drug-testing forms. MSHA used an hourly compensation rate of \$25 for a clerical staff person to estimate burden costs.

Tables 27, 28 and 29 report the burden to mine operators.

**Table 27: Annual Recurring Paperwork Costs  
Alcohol- and Drug-Testing Form, by Size**

Coal and M/NM (including contractors) Burden Hours and Total Costs Chain-of-Custody Form				
Size	Total Number Tests	Number of Hours Per Test	Total Number of Burden Hours	Total Costs
Small (<20)	28,441	0.25	7,110	\$88,879
Large(20-500)	62,133	0.25	15,533	\$194,165
Large (>500)	10,235	0.25	2,559	\$31,985
<b>Total</b>	<b>100,809</b>		<b>25,202</b>	<b>\$315,028</b>

  

Coal and M/NM (including contractors) Burden Hours and Total Costs Alcohol Testing Form				
Size	Total Number Tests	Number of Hours Per Test	Total Number of Burden Hours	Total Costs
Small (<20)	28,441	0.167	4,750	\$59,371
Large(20-500)	62,133	0.167	10,376	\$129,702
Large (>500)	10,235	0.167	1,709	\$21,366
<b>Total</b>	<b>100,809</b>		<b>16,835</b>	<b>\$210,439</b>

**Table 28: Annual Recurring Paperwork Cost for Written Policy, by Size**

Coal & M/NM (including contractors) Burden Hours and Total Costs Written Policy		
Size	Number of Mines	Total Cost
Small (<20)	19,253	\$80,381
Large(20-500)	3,754	\$38,722
Large (>500)	47	\$364
Total	23,054	\$119,468

**Table 29: Annual Recurring Paperwork Cost for Record Retention, by Size**

Coal & M/NM (including contractors) Burden Hours and Total Costs Record Retention		
Size	Number of Mines	Total Cost
Small (<20)	19,253	\$80,381
Large(20-500)	3,754	\$38,722
Large (>500)	47	\$364
Total	23,054	\$119,468

## **Compliance Cost Summary**

Tables 30.1, 30.2, and 31 provide the aggregate costs for the first year. Tables 32.1, 32.2 and 33 present the aggregate annual recurring costs for ongoing years.

## **Feasibility**

MSHA has concluded that the requirements of the proposed rule are technologically and economically feasible within the coal and M/NM mining sector.

This proposed rule is not a technology-forcing standard and does not involve activities on the frontier of scientific knowledge. In addition, the proposed rule would not require the purchase of any machinery or equipment to implement these standards. Therefore, we have concluded that this proposed rule is technologically feasible.

The estimated compliance cost of the proposed rule for the all mines in the first year is \$16.0 million and in subsequent years the annual recurring cost is approximately \$13.0 million, which is 0.00016 percent and 0.00013 percent, respectively, of its annual revenue of \$99.4 billion. MSHA concludes that the final rule would be economically feasible for both the coal and M/NM industry because the annual recurring compliance costs are well below one percent of the estimated annual revenue for all mines.

**Table 30.1: Aggregate First Year Costs for Mine Operators, by Mine Type and Size**

Coal								
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Policy Costs	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Costs First Year
Small (<20)	1,127	8,088	2,395	74,260	217,754	232,112	\$21,894	\$546,020
Large(20-500)	872	62,600	18,536	47,318	1,390,209	1,554,292	\$103,899	\$3,095,718
Large (>500)	14	9,568	2,833	163	45,649	52,218	\$14,884	\$112,914
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>23,764</b>	<b>121,741</b>	<b>1,653,611</b>	<b>1,838,623</b>	<b>\$140,677</b>	<b>\$3,754,653</b>
M/NM								
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Policy Costs	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Costs First Year
Small (<20)	10,964	54,455	16,124	\$585,631	\$1,391,785	\$1,273,377	\$175,596	\$3,426,390
Large(20-500)	1,784	86,851	25,717	\$78,475	\$1,827,435	\$1,658,102	\$148,944	\$3,712,956
Large (>500)	25	18,338	5,430	\$236	\$82,664	\$74,588	\$28,512	\$185,999
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>47,271</b>	<b>\$664,341</b>	<b>\$3,301,884</b>	<b>\$3,006,066</b>	<b>\$353,052</b>	<b>\$7,325,345</b>

**Table 30.2: Aggregate First Year Costs for Mine Contractors, by Mine Type and Size**

Coal Contractors								
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Policy Costs	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Costs First Year
Small (<20)	2,537	11,411	3,379	\$167,168	\$306,651	\$309,297	\$38,795	\$821,911
Large(20-500)	428	24,463	7,243	\$23,225	\$541,384	\$546,060	\$59,297	\$1,169,966
Large (>500)	1	353	104	\$12	\$1,670	\$1,688	\$593	\$3,962
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>10,726</b>	<b>\$190,405</b>	<b>\$849,705</b>	<b>\$857,045</b>	<b>\$98,685</b>	<b>\$1,995,839</b>
M/NM Contractors								
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Policy Costs	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Costs First Year
Small (<20)	4,625	22,099	6,544	\$247,040	\$563,107	\$476,839	\$72,727	\$1,359,713
Large(20-500)	670	35,925	10,637	\$29,472	\$753,867	\$638,374	\$89,171	\$1,510,884
Large (>500)	7	6,309	1,868	\$66	\$28,369	\$24,023	\$10,090	\$62,549
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>19,049</b>	<b>\$276,578</b>	<b>\$1,345,343</b>	<b>\$1,139,237</b>	<b>\$171,988</b>	<b>\$2,933,146</b>

**Table 31: Aggregate First Year Costs for Mine Operators, Including Contractors, by Mine Type and Size**

	Coal and M/NM (including contractors)							
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Policy Costs	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Costs First Year
Small (<20)	19,253	96,053	28,441	1,074,099	2,479,298	2,291,625	\$309,012	\$6,154,034
Large(20-500)	3,754	209,839	62,133	178,490	4,512,894	4,396,829	\$401,312	\$9,489,524
Large (>500)	47	34,568	10,235	476	158,352	152,517	\$54,079	\$365,424
<b>Total</b>	<b>23,054</b>	<b>340,460</b>	<b>100,809</b>	<b>\$1,253,065</b>	<b>\$7,150,544</b>	<b>\$6,840,971</b>	<b>\$764,402</b>	<b>\$16,008,982</b>



**Table 32.1: Aggregate Annual Recurring Costs for Mine Operators, by Mine Type and Size**

Coal							
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Annual-Recurring Costs
Small (<20)	1,127	8,088	2,395	\$217,754	\$173,313	\$21,894	\$412,960
Large(20-500)	872	62,600	18,536	\$1,390,209	\$1,137,562	\$103,899	\$2,631,670
Large (>500)	14	9,568	2,833	\$45,649	\$37,834	\$14,884	\$98,367
<b>Total</b>	<b>2,013</b>	<b>80,256</b>	<b>23,764</b>	<b>\$1,653,611</b>	<b>\$1,348,709</b>	<b>\$140,677</b>	<b>\$3,142,997</b>
M/NM							
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Annual-Recurring Costs
Small (<20)	10,964	54,455	16,124	\$1,391,785	\$939,054	\$175,596	\$2,506,436
Large(20-500)	1,784	86,851	25,717	\$1,827,435	\$1,227,052	\$148,944	\$3,203,432
Large (>500)	25	18,338	5,430	\$82,664	\$55,327	\$28,512	\$166,503
<b>Total</b>	<b>12,773</b>	<b>159,644</b>	<b>47,271</b>	<b>\$3,301,884</b>	<b>\$2,221,434</b>	<b>\$353,052</b>	<b>\$5,876,371</b>

**Table 32.2: Aggregate Annual Recurring Costs for Mine Contractors, by Mine Type and Size**

Coal Contractors							
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Annual Recurring Costs
Small (<20)	2,537	11,411	3,379	\$306,651	\$236,532	\$38,795	\$581,979
Large(20-500)	428	24,463	7,243	\$541,384	\$417,595	\$59,297	\$1,018,276
Large (>500)	1	353	104	\$1,670	\$1,291	\$593	\$3,554
<b>Total</b>	<b>2,966</b>	<b>36,227</b>	<b>10,726</b>	<b>\$849,705</b>	<b>\$655,419</b>	<b>\$98,685</b>	<b>\$1,603,808</b>

  

M/NM Contractors							
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Annual Recurring Costs
Small (<20)	4,625	22,099	6,544	\$563,107	\$363,496	\$72,727	\$999,330
Large(20-500)	670	35,925	10,637	\$753,867	\$486,634	\$89,171	\$1,329,672
Large (>500)	7	6,309	1,868	\$28,369	\$18,313	\$10,090	\$56,772
<b>Total</b>	<b>5,302</b>	<b>64,333</b>	<b>19,049</b>	<b>\$1,345,343</b>	<b>\$868,443</b>	<b>\$171,988</b>	<b>\$2,385,774</b>

**Table 33: Aggregate Annual Recurring Costs for Mine Operators, Including Contractors, by Mine Type and Size**

	Coal and M/NM (including contractors)						
Size	Number of Mines	Number of Miners	Total Additional Miners Tested	Drug & Alcohol Testing Costs	Training Costs	Recordkeeping Costs	Total Annual-Recurring Costs
Small (<20)	19,253	96,053	28,441	\$2,479,298	\$1,712,395	\$309,012	\$4,500,705
Large(20-500)	3,754	209,839	62,133	\$4,512,894	\$3,268,844	\$401,312	\$8,183,050
Large (>500)	47	34,568	10,235	\$158,352	\$112,765	\$54,079	\$325,196
Total	23,054	340,460	100,809	\$7,150,544	\$5,094,004	\$764,402	\$13,008,950

## **Regulatory Flexibility Act and Small Business Regulatory Enforcement Fairness Act**

In accordance with section 605 of the Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), MSHA has analyzed the impact of the proposed rule on small entities. Based on the analysis, MSHA certifies that the proposed rule does not have a significant economic impact on a substantial number of small entities. The factual basis for this certification is presented in the PREA and summarized below.

### **Definition of a Small Mine**

Under the RFA, in analyzing the impact of a rule on small entities, MSHA must use the Small Business Administration's (SBA) definition for a small entity 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. MSHA has not established an alternative definition, and hence is required to use the SBA's definition. The SBA defines a small entity in the mining industry as an establishment with 500 or fewer employees (13 CFR 121.201). This analysis complies with the legal requirements of the RFA for an analysis of the impacts on "small entities." MSHA concludes that it can certify that the final rule does not have a significant economic impact on a substantial number of small entities.

### **Factual Basis for Certification**

MSHA's analysis of the economic impact on "small entities" begins with a "screening" analysis. The screening compares the estimated cost of a rule for small entities to the estimated revenue. When the estimated cost is less than one percent of estimated revenue (for the size categories considered), MSHA believes it is generally appropriate to conclude that the proposed rule does not have a significant economic impact on a substantial number of small entities. If estimated costs are equal to or exceed one percent of revenues, MSHA would investigate whether further analysis is required.

### **Derivation of Costs and Revenues**

The compliance costs noted in this chapter were previously presented in the compliance cost section of this document along with an explanation of how they were derived.

### **Coal Mine Revenues**

Revenues for coal mines are derived from data on underground and surface coal prices and tonnage. Total underground coal production in 2007 was approximately 349 million tons. The 2006 price of underground coal was \$38.28 per ton.<sup>15</sup> To estimate the 2007 price, the 2006 price was increased by 5.5 percent to \$40.37, using the Bureau of

---

<sup>15</sup> U.S. DOE, EIA, "Annual Coal Report 2006," Table 28, October 2007.

Labor Statistics producer price index for underground bituminous coal. Total estimated revenue in 2007 for underground coal production was \$14.1 billion. Multiplying tons by the 2007 price per ton, 2007 underground coal revenue, by mine size, is \$11.2 billion for mines with 1-500 employees.

Total surface coal production in 2007 was approximately 792 million tons. The 2006 price of surface coal was \$18.88 per ton.<sup>16</sup> To estimate the 2007 price, the 2006 price was increased by 8.7 percent to \$20.52, using the Bureau of Labor Statistics producer price index for surface bituminous coal. Total estimated revenue in 2007 for surface coal production was \$16.2 billion. Multiplying tons by the 2007 price per ton, 2007 surface coal revenue, by mine size, is \$11 billion for mines with 1-500 employees.

Underground and surface coal revenue is estimated to be approximately \$22.2 billion for mines with 1-500 employees. Underground and surface coal revenues for all mines are estimated to be \$30.3 billion.

### **M/NM Mine Revenues**

Total 2007 revenues for M/NM mines are estimated to be \$68 billion. Total M/NM 2007 employment hours is 362,707,747. Estimated revenues were divided by employment hours to arrive at an average of \$187.48 revenue per hour. Revenue for surface M/NM mines with 1-500 employees is approximately \$54.8 billion (292.6 million employment hours x \$187.48). Revenue for underground M/NM mines with 1-500 employees is approximately \$5.1 billion (27.2 million employment hours x \$187.48). Thus, revenues for surface and underground mines with 1-500 employees are estimated to be \$59.9 billion.

### **Results of Screening Analysis**

The compliance cost of the proposed rule for coal mines and M/NM with 1-500 employees as a percent of revenues is 0.0192 percent for the first year and 0.0156 percent for ongoing years. This suggests that the proposed rule would not have a significant economic impact on a substantial number of small entities.

---

<sup>16</sup> U.S. DOE, EIA, "Annual Coal Report 2006," Table 28, October 2007.