REPORT TO GOVERNOR BOB WISE

ON MINE SAFETY AND HEALTH IN WEST VIRGINIA

AND

RECOMMENDATIONS TO MAKE WEST VIRGINIA MINES THE SAFEST AND
HEALTHIEST IN THE NATION

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EXECUTIVE SUMMARY

During the first ten months of 2001, thirteen miners have been killed in West Virginia mines. West Virginia mines are, and have been, among the most dangerous mines in the United States. In the spring, Governor Wise requested that we attack the problem of mine accidents from two vantage points. First to attempt to stem the current trend and second to come up with a plan to improve the State’s safety record over the long term. Upon receiving instruction from the Governor, we began an aggressive program of accident prevention and a more in depth effort seeking longer term solutions.

Education Outreach and Enforcement

We adopted a three-pronged approach of education, outreach and enforcement. We conducted public meetings in the mining communities. Secondly, we developed pamphlets concerning each fatal accident and had 20,000 such pamphlets distributed to every miner in every mine in the State.

In an effort to enlarge our effort, the Office of Miners Health Safety and Training (OMHST) director requested assistance from MSHA in addressing the immediate issue of the high number of fatal accidents and also developing long term solutions. Next, in order to reach the widest possible audience, we developed a 25-minute video, which included a message from the Governor. The West Virginia Coal Association, the United Mine Workers of America, and the West Virginia Public Television Broadcasting joined us in this effort. This video incorporated a unique concept in occupational safety and health training, the use of actual fatal accident scenes and narrations of fatal accidents that had occurred in West Virginia mines during the year. Through the efforts of the OMHST and the constituents from the mining community, the 25-minute video, which typically costs $1,500 per minute was produced at a fraction of the price and 100 copies were duplicated, distributed and shown at each mine throughout the State.

Then we began an outreach effort to contact each mine operator who had experienced one or more fatal accidents at a mine in the State and discussed with them their plans to ensure that other accidents did not occur again at any of their locations.

Roof Falls Still the Leading Killer

Based upon the fact that one-half of the fatals were roof falls, roof control plans at mines in southern West Virginia were reviewed, particularly in light of the pillar extraction problems which appeared to be related to a number of the accidents. Also, a series of meetings were held with MSHA officials, union officials, and
management representatives to discuss the causes of the accidents as well as long term remedies.

The OMHST also entered into an agreement with the West Virginia Office of Worker’s Compensation to share data on accident history at mining operations. This was done to ensure that accidents were being properly reported to the agencies and to assist in accurately determining the accident records of individual mine operators. This agreement has upgraded the quality of accident data available to state agencies.

Upgrading the Inspectorate

Next, in order to upgrade the quality of inspections by the State inspectors, each inspector was provided a trend analysis of the mines that they would be inspecting. Such analysis described accidents and injuries that had occurred at the mine during the preceding year. This information had not been available to inspectors prior to this undertaking and enhanced their inspection process. Also, to improve the State agency’s program, a training session for 8 West Virginia inspectors on ventilation and fire control was undertaken by the OMHST at the MSHA center in Dallas Pike, West Virginia.

State Federal Partnership

In addition, a unique first ever federal partnership was developed between the OMHST and MSHA. The purpose was two-fold: first was to upgrade the quality of the State inspectorate both from an enforcement and training standpoint and second to improve both agencies’ efforts by developing a data information link between MSHA and the State to facilitate the exchange of information on mining operations, accidents, injuries and illnesses. This partnership with West Virginia is the first of its kind between the Department of Labor and a state and other states are now developing similar schemes based upon this model.

One of the first steps of this partnership was the transfer of eighty lap top computers from MSHA to OMHST. These computers are valued at $3,000 per unit (originally costing nearly $6,000) and have resulted in a $240,000 gift to the State. These top of the line lap tops are being used to upgrade the quality and professionalism of the State inspectors and to improve the access to mine data and ultimately will allow inspectors to write citations using lap tops and printers at the mine site.

Additional transfers are in the pipeline and the transferred equipment value is expected to exceed $300,000 to $350,000. In addition, a training program is being developed to improve state inspections, including enhancements in citation writing and enforcement techniques. These classes will be conducted at the MSHA Academy in Beckley as part of the partnership program. Also, West Virginia accident
investigators have begun a course at the Beckley facility that will result in upgrading the accident investigations at West Virginia mines.

The overall impact of the partnership program with MSHA, the training and the data information exchange has been to improve the quality and expertise of the West Virginia State Inspection Staff, as well as the agency staff generally.

Sadly, during these efforts miners continued to perish in West Virginia mines, emphasizing the fact that long term safety problems continue to exist and that long term systematic solutions were needed.

**Accident Analysis**

Also during this time, we began an exhaustive analysis of accidents in West Virginia and the nation’s mines, examining first the most recent fatals and then going back five years, as well as taking a look at the State’s record as compared to experiences in other state mines. We also looked at historical data and studies to understand the experiences in West Virginia over the 100 years that mining has occurred. Data from both the State records, as well as from MSHA, was studied, as were the fatal accident reports from West Virginia and surrounding states.

As per charts in the body of the report, standard accident analyses were undertaken as were newly designed analysis. For the first time, contractor accident data was examined, coupled with operator data, and accidents were examined by mining type and method of mining.

The traditional accident breakdown and analysis produced little which was new information or data other than to reinforce the fact that roof falls continued to be the leading killer in underground mines, haulage and transportation second and so on. Nor did the occupations breakdown provide any clues; as they followed the typical patterns. Occupations which worked in the face areas were more likely to experience fatal accidents than workers outby.

However, two comparisons which did produce interesting results were reviews of the contractor accidents and a review of the accidents, specifically roof fall accidents, as they related to mining type. The overall accident data points to two leading contributors to the fatal patterns in West Virginia mines. First is that now 30% of all fatals are independent contractor employees, not mine operator employees. This is a relatively new phenomenon having only come about in the last 15 years.

Secondly, roof falls in West Virginia, always the leading killer of miners, appear to be more frequent in certain types of mining specifically retreat pillaring and operations utilizing the Christmas tree method of pillaring.
As was proposed, we also did not simply rely upon our own data review. We researched the literature for studies that might lend a hand in helping to uncover new understandings of the current accident trend.

Retreat Pillar Mining

In the case of the types of pillar extraction involved in fatal accidents, several NIOSH studies added greatly to our understanding of the relationship between falls and type of mining. The authors had examined roof fall fatalities and pillar mining fatalities between 1989 and 1999 and concluded: “Pillar recovery apparently accounts for about 10% of all underground production, but has been associated with about 25% of the roof falls and rib fatalities during 1989 and 1996”.

They further concluded that: “The largest numbers of retreat mines were found in southern Appalachia coal fields” and the number of fatalities that have occurred at these locations during pillar recovery operations seemed disproportionately high in relation to coal production.

In an effort to follow up on these findings, and as a result of our own earlier analysis, we reviewed fatalities as to methods of mining in use and concluded that retreat pillar mining particularly utilizing the Christmas tree method were involved in a disproportionately high percentage of accidents. We also noted that pillar retreat mining generally and the Christmas tree method have been gaining in popularity in West Virginia during recent years.

A second factor which we believe is quite significant in understanding the current level of fatal accidents is that the conditions under which mining occurs in West Virginia have changed. Yet, the standards or criteria which is used to judge or approve the mining methods are sometimes out of date or not always reflective of the current coal seam or rock formation conditions.

The approval standards were drawn up in an era when virgin coal seams and the rock formations above them were untouched by previous mining. That is no longer the case. Virtually all new mining is being conducted in areas where mining has previously occurred. Thus the data and understandings of the rock formation responses to mining are being strained and new data and analysis needs to be applied to these new conditions.

When these factors are combined mining in previously mined areas and the use of techniques like Christmas Tree pillaring that are high risk have produced conditions which results in placing miners at risk levels which are exceedingly high. As one miner stated, “We are always pushing the edge of safety; we are right up against it.”
Thus, the report recommends that certain presently approved mining methods be very carefully reviewed and critically examined to determine whether their approval should be continued, especially in those coal fields where previous mining has occurred changing the conditions and forces impacting the new mine. In addition, certain practices such as utilizing short bolts (three-foot lengths) be abolished because of the fact that they have been associated with a number of fatalities and the fact that virtually every other state has by practice, if not by law, outlawed their use. As a result of these findings, MSHA and the OMHST have initiated a review of their approval process.

**Independent Contractors**

The recommendations with respect to the independent contractors came about as a result of both the accident analysis as well as the public hearings.

Contractor accidents are not attributable to the mine operation under the current state and federal data collection systems. This has several significant impacts. First, it tends to allow some companies to claim a better safety record than the number of fatal or nonfatal accidents that have occurred on their property would suggest. For example, this year Massey Energy has on its official record two fatal accidents because only two of the six or eight men who have died on Massey property were Massey employees. The other miners were independent contractor employees who died on Massey property and in Massey mines doing the work of miners but were not officially attributed to Massey Energy because they were contractor employees. Thus, as is the case here, the company can claim that its safety record is much better than it actually is.

Secondly, the contractors, while officially “operators” under the West Virginia statute have not been held to as high a standard as traditional mine operators. Contractor accident numbers have been increasing over the years as the number of contractors used in the mines has increased. In West Virginia, the use of such contractors has increased dramatically and has expanded from traditional contract jobs such as explosives detonator to virtually every job. Now shuttle car operators, continuous miner operators, and roof bolt operators frequently are independent contractors.

Presently on an annual basis, independent contractor employees account for roughly 30% of all fatalities and it is estimated that same percentage of nonfatal accidents in West Virginia mines. The problem of understanding the impact of contracting or determining the number of such employees that are at work on any given day or how many injuries they suffer is made much more difficult by the fact that the data systems - neither state or federal - identify these employees. The mine operators do not list these employees and many contractor companies do not provide accurate information either as to the number of employees at any one mine, the
number of accidents, nor the production and/or man-hours. Therefore, contractors have not traditionally been looked at as an accident group nor has their role been examined from the standpoint of a system of accident prevention.

As part of this study for the first time on a systematic basis, five major WV contractors’ accident records were examined. A larger population of contractors was not available because some companies do not report accidents, as they are required to do. In addition, neither the state nor federal agencies typically take enforcement actions against such failure to report. Through a newly created file, we were able to combine state and federal data and, review the accident records of five major contractors, some of whom, provide Massey Energy with contract employees. The findings were troubling as the charts indicate that these contractors had accident rates much higher than the mine operators and at multiples above the national average.

In addition, several commentators at the public meetings spoke of the new reality at mines that used independent contractors. They discussed how you did not even know the names of the men on your crew, much less their work habits or their safety practices. As one miner described, “You might meet one person once and another guy would replace him in a day or two”.

Coupling this independent contractor data with the accident reports, we determined that a significant number of these accidents were occurring to miners who had several years of experience in the industry, but only a very short amount of experience at the mine.

Thus, the approach taken by the regulatory agencies needs to be dramatically changed if we are to gain control of the accidents that are occurring to these contract employees. As the recommendations state, a three-pronged approach to deal with this problem is needed. First, a better accounting of contractor accidents is needed, including attribution of each accident to both the contractor as well as mine operator and owner of the mine. In addition the establishment of an enforcement system to address independent contractors as a group and an enforcement mechanism to deal with the mine setting as a whole so that prevention, education and training and enforcement mechanisms are effective in bringing about remedies to safety and health risks. If by virtue of this new employment system mine operators are not responsible for accidents on mine property to persons who are performing the work of miners, then new models of education and training and enforcement need to be developed for both the independent contractor and the mine operator. Thus, the recommendations that entirely new systems be designed for education and training and enforcement for contracting companies.
Office of Miners Health, Safety and Training

The Office of Miners Health Safety and Training is the agency responsible for the health and safety of the State’s miners. During the period 1996 - 2000, a number of steps were taken which diminished the agencies authority, manpower, and capacity to effectively address health and safety problems. The legal staff position became vacant and has not been filled; the number of inspectors was curtailed, even while the number of inspectable operations was increasing in large part due to the increased use of independent contractors. Also, during this period the numbers of penalty citations declined and the amount of dollars assessed and collected was halved. In addition, the lack of an attorney meant that there was no one to handle de-certification actions against supervisors who violated the law and the number of cases dropped to virtually nothing.

The limitations on the elevated dollar penalties also meant that the average mine inspector’s citation was $60, about the same as a parking ticket; but in the mines, the violations are typically a matter of life or death.

The shortage of manpower also has meant that little upgrading or training has been occurring among the State inspectors. As the recommendations point out, the project has taken a number of steps to immediately rectify the shortcomings where possible and we also propose an increase in the agency’s funding, a filling of the attorney position, a reduction of the level of intent, that inspectors need in order to use elevated penalties, bringing it to the federal standard.

West Virginia Mine Safety in the 21st Century

The final recommendation is the adoption of a campaign for the 21st century by the mining community, especially those mine operators who have experienced multiple fatalities, to publicly commit to an undertaking to make West Virginia mines among the most safe operators in the country.

For more than a century, West Virginia miners have experienced high numbers of deaths and injuries. We have an opportunity to change that history and to become one of the safest mining communities in the world. Every major mine operator has committed to join in such a campaign as have the United Mine Workers of America. We must not fail in this challenge to protect the State’s most precious natural resource “the miner”.

VII
A NOTE ON METHOD AND THANKS

Little is learned by a singular focused study, at least as it relates to mine safety. As described in our proposal, our undertaking looked at earlier studies, examined exhaustive amounts of data, on both a national and state level, visited mines, visited fatal accident scenes, interviewed or more accurately talked with miners, union representatives, mine supervisors, corporate presidents and association officials, and studied accident reports and records at both the national level and state level. We also spoke with West Virginia University officials, state and federal inspectors and officials. To all these people we offer thanks.

Finally, I wish to thank the staff at the OMHST headquarters for all of their efforts. They were a delight to work with and provided assistance above and beyond the call of duty. Also, the West Virginia University Mining Extension office and the MSHA offices in Arlington and throughout the state provided valuable assistance.
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The West Virginia Campaign for Safety and Health in the 21st Century

Recommendations
PREFACE

As a result of a high number of fatal accidents which occurred in West Virginia mines during the first months of 2001 Governor Bob Wise requested that efforts be undertaken to halt the accidents, to study their causes and to develop a plan for reducing and eliminating fatal accidents from the mines of the state. He further directed that we develop a plan to make West Virginia mines the safest and healthiest in the nation. The following is the report of what actions have been taken, what our analysis showed, and a plan of action for how to make West Virginia mines the safest and healthiest in the nation.
Summary

In order to address the immediate fatal accidents, working with the WV Office of Miners’ Health, Safety and Training (OMHST) immediate steps were taken to attempt to make the mining community aware of the accidents, to encourage actions on the part of all concerned to stop the fatalities and to develop a long term study and strategy.

**IMMEDIATE STEPS**

- A series of three public meetings were held to solicit input from miners and mine operators. Meetings were held in Morgantown, Beckley and Logan.

- Agency personnel distributed pamphlets that contained fatal information and then discussed accidents with miners during inspections.

- All state and MSHA personnel participated in a statewide walk and talk activities. Approximately 9,000 miners were contacted regarding reviewing mine plans and following safe work procedures.

- Accident prevention handouts were developed and distributed to every mine and miner on each shift at every mine in the state.

- The Office of Miners Health Safety and Training requested enforcement, education and training assistance from the Mine Safety and Health Administration’s Assistant Secretary as well as the two MSHA District Managers in WV.

- Training sessions were held at the MSHA Academy for 15 state personnel involved with accident investigations.

- Radio announcements or spots on mine safety topics were produced and aired featuring Marshall Coach Pruitt and WVU Coach Rodriguez.

- A 25-minute video “Fatal Gram” was developed to increase awareness of accidents and possible preventive measures. The video was distributed and shown at virtually every mine statewide.

- All roof control plans are being reviewed by OMHST and MSHA to reconsider some pillar mining methods.

- Meetings were held with MSHA officials, as well as miner representatives and mine operators.
LONG TERM

• Entered an agreement with Worker’s Compensation Office to initiate sharing information about accident and injury history at mining operations.

• Provided each inspector a trend analysis of their mines reflecting accidents and injuries that have occurred at that operation.

• Training sessions are planned at the MSHA Triadelphia Training Center for 8-10 inspectors covering Ventilation and Fire Control.

• Met with each mine owner/operator that has had a fatal accident to discuss implementation of their improvement plan.

• Increased inspections at all mines in Southern WV.

• Established a focused inspection program for problem mines and began using inspection staff to concentrate on Massey operations only.

• Established a data information link between MSHA and the state to exchange accident and injury statistics.

• As part of a first ever federal-state agreement developed a project to improve and enhance both the state and federal mine safety and health effort, by sharing of information, technology and equipment between the MSHA and the OMHST. The first phase was the reception by the OMHST of approximately 63 laptop computers, and training to provide inspectors with immediate mine information, the development of a training program to enable the state mine inspectors to use the computers during the issuance of citations.

• Initiated a roof control alert program by utilizing inspectors to distribute information and increase awareness of proper roof control practices.

SADLY DURING THIS TIME THE FATAL ACCIDENTS CONTINUED IN WEST VIRGINIA MORE MEN WERE KILLED WHILE AT WORK IN THE MINES
INTRODUCTION

During the first eleven months of 2001 thirteen citizens of West Virginia met their deaths while at work in the mines, had these men died together they would have qualified as a disaster and garnered national attention, but as they died one at a time their passing was considered routine. Each of the accidents was studied in depth; the causes of the deaths were not new, falling rock the age-old single largest killer of miners throughout the world killed six of these men.

In addition two miners died in haulage accidents and one man was electrocuted. Also two miners died as a result of being taken up by moving conveyor belts, and finally two miners were killed on the surface. (See chart on pages 8 and 9)

This number of fatal accidents means that in the first year of the twenty-first century West Virginia again leads the nation in fatal accidents and in the rate of fatal accidents which have befallen its miners. Sadly, West Virginia has led the nation in this category during much of the last century. (See chart on page 10)

And as production in West Virginia is expected to maintain at its current level or slightly increase over the next several years, safety problems can be expected to increase.

During the course of this study we have visited numerous mine sites, including fatal accident scenes, held discussions with miners, mine operators, foremen, supervisory personnel, company executives, federal officials both in WV and nationwide. Further we have participated in public meetings, reviewed accident data, reviewed studies and analysis and conducted interviews with state mine safety officials.
Summary of 2001 Fatal Mining Accidents
West Virginia Coal Production
1990-2000
(estimated 2000 Prod.)

- Surface
- Underground
- Total
HISTORY

Unfortunately West Virginia has often led the nation in both the number and rate of fatal and nonfatal accidents since mining began on a large scale in 1890. By 1907, when the nations largest mine disaster occurred at the Consolidation Coal Company mines at Monongah, causing the deaths of more than 500 men and boys, WV had gained a reputation for having the least protective law and the least aggressive regulatory agency in enforcing safety and health laws.

This record has continued during the decades and into the new century. In 1970 William Lawson and others of the WV Coal Research Bureau of West Virginia University concluded that in the 1960’s “the individual miner is not significantly safer now than he was ten or twenty years ago” and West Virginia underground mines “are less safe than those in the rest of the country”. “The frequency of fatalities according to production is about equal for West Virginia and the rest of the nation, while the frequency of fatalities on an exposure basis is greater for West Virginia.” This trend has unfortunately continued during recent decades.

The report from a 1996 Mine Safety and Health Administration study focusing on Southern West Virginia concludes that during the period 1991-1995 Southern WV miners suffered 70 fatalities or 28% to the nation’s fatalities in an area where only 13% of the nation’s miners work. That report also pointed out another disturbing trend that has continued to the present time, 29% of the victims were independent contractors. See chart on page 13

As part of this report, we updated the data to the year two thousand; unfortunately the situation has not improved. Between 1991 and 2000, 116 or 25% of the 458 fatalities nationwide have occurred in Southern WV that continues to account for only 13% of the nations miners, and independent contractors accounted for nearly 30% of the total.
IMMEDIATE ACTIONS

When this project began, we focused first on what steps could be taken immediately to halt and reverse the fatal accident trend that was occurring in West Virginia coal mines. While the nation as a whole was experiencing a record low number of accidents, West Virginia miners were suffering the highest number in the decade with six occurring in the first six months of the year. Secondly, the program focused on the long-standing problem of high levels and rates of accidents in West Virginia mines in general.

OUTREACH, EDUCATION AND ENFORCEMENT

We immediately began an analysis of the accidents in WV during the past five years as well as comparative review of the accidents in surrounding states. One purpose of this analysis was to attempt to uncover common elements that might be addressed by the mining community in developing preventative techniques.

Working with the OMHST a three-pronged approach was developed. The three steps are Outreach, Education and Enforcement. The first step outreach is to make the mining community at large aware of the problems and seek input from all sectors for developing solutions, the second step was the development of a program of education for the miners, the mine operators and the state enforcement personnel as well as the mining education community through out the state. The third step was a focused enforcement effort on the problems or areas where our analyses had suggested improvements could be made.

The OMHST had along with the Board of Coal Mine Safety and Health begun a series of public meetings, and our efforts were directed toward expanding those meetings both in number and variety of topics.

In addition, each WV Inspector participated in a walk and talk to miners at every mine within the state. While it was recognized that the public meetings were meritorious, it was also recognized that the public’s participation was frequently limited given miners’ work schedules and travel distances, thus increased participation would be difficult if not impossible to attain. In order to address these concerns we developed a video that could be used at the mine site.

The concept was to produce a video that dealt with each of the accidents and to discuss the steps that should be taken at each mine to prevent further accidents. West Virginia Public Broadcasting provided technical and filming assistance. The video employed a novel training concept of using actual fatal accidents sites while narrators described the accident. This resulted in a production in which the situation was real, and miners and supervisors who watched would recognize the similarities at their mine and it hopefully would have real life impact.
The West Virginia Coal Association and the United Mine Workers of America joined with the agency and helped develop a 25-minute video that was reproduced and distributed throughout the state to each mine operator. The feedback received indicated that the video was positively received and viewed by a majority of the state’s mining community.

In addition, a review of every fatal accident which occurred in the state for the past five years was undertaken and each operator where there has been more than one fatal accident was contacted and asked to describe the steps taken to improve their health and safety performance. The OMHST staff then undertook an examination of these steps. Recommendations for improvements were made in a number of cases.

Each operator that had two or more fatal accidents was invited to meet and meetings were held with the principle corporate official to discuss implementation of the improvement plan.

Further the Office of Miners’ Safety Health and Training increased inspection presence and enforcement activity in areas of the state where the accidents are centered (Southern West Virginia), focusing inspection activity on those mines where fatal accidents and nonfatal accidents were occurring.

Accident prevention handouts were developed and distributed to every mine and to each miner on each shift. (Attachment A)

In addition, the Director of the Office or Miners Health Safety and Training wrote to the Assistant Secretary of the Mine Safety and Health Administration and the two District Managers in West Virginia requesting assistance with enforcement as well as education and training. (Attachment B)

Meetings were held with MSHA officials, as well as miner operators and miners representatives in order to coordinate the work of all the parties. Sadly during this time accidents continued with more fatals occurring in WV mines.
The problem of higher than acceptable fatal and nonfatal accidents in West Virginia is not new, over the years the state has been a leader in both categories, and therefore, a longer-term strategy was needed to deal with the systemic problems that the state faces in terms of mining safety. These long-term problems have developed over the several decades and involve the manner in which the industry conducts business within the state, the authority and structure of the state agency and the mining techniques allowed in the state. In order to address these systemic concerns, attention was focused on independent contractors, the agency itself and mining methods.

In the initial stages of our analysis we employed the traditional approaches for examining accident. Mining accidents were broken down by type, roof, machinery, haulage, electrical, etc. (Chart page 17). Also the months in which accidents occurred were examined (Chart page 18), and as well as accidents were examined by occupation (Chart page 19).

In addition in order to attempt to compare WV with the surrounding states we looked at accidents per tons mined, see Chart page 20. Also operator injuries per 200,000 man hours worked by state, and the fatalities which occurred underground in Kentucky and West Virginia from 1991-2000 (Chart page 22).
West Virginia Fatal Mining Accidents by Occupation 1995  2000
Operator Injuries per 200,000 Man Hours 1991 - 2000

- Kentucky
- West Virginia
- Penn.
Underground Fatalities per Million Tons Produced 1991 - 2000
As the preceding charts indicate, West Virginia’s accident pattern is not out of line with its neighbors or at variance from the norm as to causes. An initial review of the accident data would appear to indicate the record in WV is as good as or better than surrounding states, per hours worked and by tons produced. However, this data does not include the accidents experienced by independent contractors within the state’s mines. Presently there are nearly 15,000 miners in the mining industry. While no hard numbers are available, it is estimated that there are nearly an equal number of independent contract employees.

And because neither mine operators nor independent contractors keep records in the amount of coal the contract employees produce, the accident rates per tons produced at companies where a substantial number of contractors are employed is hopelessly skewed. If for example, a 50 person mine produced 5 million tons, the accident rate would be determined by looking both at production per miner, hours worked and accidents per ton, but if 25 of the 50 miners were contractors whose hours or accidents were omitted the rates are simply incorrect. Thus we are forced to examine accidents today in a completely new light. And since 30% of the accidents in Southern West Virginia are contractor employees, new methods of addressing this problem needed to be devised.
SYSTEMIC PROBLEMS OF MINE SAFETY IN WEST VIRGINIA

As part of the review of the states accident records, an examination was made of fatal and nonfatal accidents both in state and nation-wide in an effort to determine common causes and systemic problems in the mining industry in West Virginia. Two major areas were identified, which, are critical for addressing the continuing risk to WV miners. These system problems appear to be linked with several of the common causes of accidents such as roof falls. The first is the significant impact independent contractors have on safety and health in the mines. Second is the area of ground control specifically the problem of roof and rib falls in underground mines, especially in light of the changes in mining which have occurred over the past several years and the impact those changes, have had on the safety of miners.

WEST VIRGINIA MINING INDUSTRY AND THE USE OF INDEPENDENT CONTRACTORS

One of the single largest challenges facing the West Virginia mining community over the next decade is the increasing reliance on independent contractors. The use of independent contractors has grown in the mining industry throughout the nation but the practice is especially widespread in WV. The presence of contractor employees contributes significantly to the challenges state or federal regulatory agency’s face in attempting to ensure compliance with health and safety regulations, ensuring the adequacy of education and training programs and in determining the actual number and rate of nonfatal and fatal accidents that occur in the mines of the state.

Contractors now frequently perform the most dangerous jobs in mines with inadequate training, supervision or preparation. In addition, some mine operators, for legal or practical reasons, take the position that they are not responsible for the safety or health of contract employees. The state and federal programs in part encourage this position. Both the federal and WV record keeping requirements do not attribute fatal or nonfatal accidents that occur on their property but involve contract employees to the mine operator.

This omission has over the course of the past several years rendered the state and federal data systems useless for accurately calculating many company’s accident experience and rates. As contractor accidents are not attributed to the mine operators, a large operator who utilizes a large number of contract employees will be in a position of claiming that they have an excellent safety record. For example, Massey Energy has for several years publicly proclaimed that their accident record is among the lowest in the nation, which when the contractor accident data is omitted is true, however, if contractor accident data were included it would be among the highest.
This year alone at Massey mines six or eight miners have died, but only two were Massey employees. In four incidences the mines were clearly Massey operations. In two additional cases the AVS system connects the mine to Massey ownership. The others deaths were contractors who would not be registered in the computations. Thus for the first six months of 2001, Massey ranked 15th highest of the top twenty-five underground companies. If the actual number of fatalities (including contractors) that occurred on Massey property were included in the computations, Massey’s record would be among the highest accident records.

If however we were to include some of the limited independent contractor data which we developed for the first time for Massey Energy the picture changes substantially, pages 26 and 27 show the non-fatal disability rates and the fatal incidence rates for four of the state’s largest contractors. While these contractors do not work exclusively for Massey and thus their rates cannot be attributed to Massey entirely, they work a substantial percentage of time for Massey and thus the low rates ascribed to Massey on page 26 must be reviewed in conjunction with these contractor rates.

Accident data also points to the risk of using independent contractors. As the charts on page 35 and 36 indicate, roof fall accidents are occurring among mines who are new to the particular mine although they have had long experiences in the industry.

As one seasoned miner stated the workplace has changed dramatically, it used to be that you knew and understood every man on your crew, knowing his family, his children’s names, and his problems. Now you don’t know the man next to you, if you’re running a shuttle car you don’t even know the roof bolter, or the miner operator’s name.
**INTERMEDIATE INJURY RATES AND PRODUCTION OF THE**
**TWENTY FIVE**
**LARGEST UNDERGROUND COAL COMPANIES**
**JANUARY 2001 - JUNE 2001 (PRELIMINARY)**

<table>
<thead>
<tr>
<th>RANK</th>
<th>COMPANY CODE</th>
<th>COMPANY NAME</th>
<th>INTERMEDIATE RATES</th>
<th>UNDERGROUND PRODUCTION</th>
<th>RANK BY PRODUCTION</th>
<th>NUMBER OF MINES</th>
</tr>
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**# INCIDENCE RATES AND OTHER DATA PRESENTED FOR COMPANIES MENTIONED WITH "#" MAY HAVE BEEN AFFECTED BY THE ACQUISITION OR SALE OF MINES DURING THE REFERENCED TIME-PERIOD.**
Massey Energy Contractors Safety Performance

Year

Fatal Incidence Rate


— National Rate
— Mountain Energy
— Lightning Contract
— Oasis Contracting
One clearly critical recommendation is for the State and Federal government data basis to be modified to include contractor data in the compilation of accidents, production, employment, etc.

Not only are independent contractor accidents not attributable to the mining companies the data on independent contractor accidents is extremely poor or not existent. Contractors frequently do not fill out the necessary forms and neither the state nor federal enforcement agencies regularly bring enforcement actions against those contractors who fail to complete the required accident forms.

However, from the accident data that is available, a troubling picture emerges of five of the states largest contractors and their accident records, the data is drawn both from the federal reports and state reports. Contract data that is available shows that several large WV contractors experience accident rates at multiples of the national average for coal mine operators. (See charts on pages 30 and 31).

The contractors shown on page 30 are workers who do a wide variety of tasks from cleaning the offices to running the roof bolters and are among the largest contractors in West Virginia. What is troubling is that the accident rates among these mine contractors who, because of their size, might be expected to have a more sophisticated safety and health training program is much higher than the national average for mine operators.
Major WV Contractors Safety Performance

Fatal Incidence Rate

Year

- National Rate
- Island Fork Constr.
- Mountain Energy
- Lightning Contract
- Oasis Contracting
- Powell Construction
- Gunther-Nash Mining
Historically, the largest killer of miners has been falls of roof or ribs. That fact is true today, 6 of the states 13 fatalities in 2001 have been falls of roof or rib. During the course of the past five years, roof falls have accounted for the largest single cause of deaths in all states in underground mines. (See chart on page 33)

As part of our effort, five years of fatal accidents were examined to determine mining methods and whether those methods were contributing to the high number of fatal and nonfatal accidents. (See charts on pages 33-36)

The standards and criteria for determining what was or is an acceptable ground control method and or technique for dealing with roof control were drawn up in earlier decades and under conditions that for the most part no longer exist. Large unmined virgin coal seams were the standard or norm when room and pillar mining and pillar extraction techniques were developed and first approved. Those conditions no longer exist; mines are now frequently developed in areas where mining activity has previously been conducted either above, below or adjacent to the area to be mined. Such factors dramatically alter the conditions of the mining process and increase the risks which miners face.

Unfortunately, little has been done in the way of updating or changing methods of controlling the roof especially from a safety and health standpoint. What was acceptable in earlier times may or may not be acceptable now because of the change in conditions under which the mining is taking place. As a result of this study, initial steps incorporating changed conditions into the approval process have begun, but more extensive efforts should be undertaken.

In particular two practices were identified which appeared to have serious safety concerns in WV mines, retreat pillar mining especially utilizing Christmas Tree design and the use of short, three foot bolts. Currently WV is the only state to permit the use of 3 foot or 36-inch roof bolt, virtually every other state has either by statute, regulation or practice, has outlawed their use.

Retreat pillar mining especially employing the Christmas Tree Pillar Extraction method, is a technique which a number of studies have examined because of the disproportionate number of accidents which have been associated with this practice. Its’ popularity has increased in WV mines during the past several years, to the point that currently more than 100 mines employ this technique.

Given the large number of fatal roof fall accidents that have occurred over the past decades, it is incumbent on the state as well as federal government to thoroughly review the current roof control systems that are being approved for use in mines. This is particularly appropriate at mines where there have been earlier disturbances to the strata above, below, or adjacent to the mining operation. Such
FATALS FOR 1995-2001
ROOF FALL VS OTHER
other
Root Fall
OCCUPATION OF ROOF FALL FATALITIES IN WEST VIRGINIA 1996-2001

47% 7% 13% 33%

ROOF BOLTER CM OPERATOR FOREMAN SC OPERATOR
EXPERIENCE AT THE MINE OF MINERS INVOLVED IN WV ROOF FALL FATALITIES FROM 1994-2001
TOTAL MINING EXPERIENCE OF MINERS INVOLVED IN WV ROOF FALL FATALITIES 1994-2001
mining dramatically changes the geological pressures and makes reliance upon the previously accepted engineering studies and models problematic and unreliable.

In a recent study, A Statistical overview of Retreat Mining of Coal Pillars in the US, Christopher Mark, Frank E. McCall and Deno M. Pappas of NIOSH conclude “Pillar recovery apparently accounts for about 10% of all underground production, but has been associated with about 25% of the roof and rib fatalities during 1989 through 1996. In a related analysis, Montague concluded that of the pillaring fatalities 49% occurred during the mining of the final stump.” The stump is known among miners as the “suicide pillar”.

The authors further conclude, “The largest number of retreat mines were found in the Southern Appalachian coal fields”, and they found, “The number of fatalities that have occurred during pillar recovery operations seems disproportionately high relative to coal production”. While the authors point out that frequently the accidents were related to violations of existing mining laws, “nearly 50% of fatal incidents have occurred during the recovery of the final lift”.

As part of this effort the last five years of fatal accidents in pillar mining was examined specifically focusing on the Christmas Tree pillaring method. As shown on page 38 over two-thirds (2/3) of the fatals which occurred during retreat pillar mining occurred in mines using the Christmas Tree method of pillar extraction.

New standards of safety and health precautions need to be developed; including engineering criteria for mining in previously disturbed coal beds and seams, and these new standards must be applied before such methods are approved by state or federal regulations.

Christmas Tree Pillaring it turns out is a particularly dangerous extraction practice which should be critically reviewed and/or significantly revised, with adequate requirements and criteria drawn up to provide protection to the miners engaged in such techniques. (See chart on page 38)

In addition the use of three-foot bolts should be restricted to only those conditions that absolutely mandate their use and otherwise, the use should be prohibited.

From a broader vantage point much in the way of improved or advanced engineering methods need to be applied to ground control. There is presently little application of advances in rock engineering or motion detection being applied in WV mines or for that matter in the nation as a whole. Systems to detect movement or gaps in the overhead strata have advanced in other countries and indeed motion detectors and other devices which assist in predicting the earth’s movement are now common in other countries, unfortunately they are rare in U.S. mines.

It has been argued that such devices are not perfect and cannot predict falls with certainty, however it cannot be said that they do not contribute to our knowledge of the roof conditions and help us predict movement in many instances.
WEST VIRGINIA PILLAR MINING FATALS 1996-2001

- 67% - Christmas tree pillar fatalities
- 33% - Other pillar fatalities
Unfortunately, there has been insufficient work done in the pure scientific study of predicting falls, and too little done in the area applying what has been learned in other mining industries worldwide, or in applying techniques which have been developed in other industries. Sadly, for miners we are still trying to control the number one killer by sounding, listening and taking down what is thought to be unsafe roof with a bar. While production systems have taken gigantic steps forward, safety protections are locked in the dark ages.

This is not a problem unique to West Virginia but one that is so important to our miners because of the large number of underground mines operating in the state. Thus, West Virginia should take the lead in ensuring that safety advances are aggressively incorporated in the states mines.
Health and Safety Issues

The regulation of mining in West Virginia began in the 1890’s with the establishment of the Department of Mines. The law and the department were developed in large measure with significant input from the mine operators and thus, some argue, reflected the interest of these same mine operators.

As indicated earlier WV mines have frequently experienced accidents at among the highest rates in the nation. Some public comments have suggested that the mine operators’ influence in the development of the law and its application has been part of the reason for such a record.

Coal mines fall under the dual jurisdiction of the state and federal government, specifically the Office of Miners’ Health, Safety and Training, a division of the WV Department of Commerce, and the U. S. Department of Labor’s Mine Safety and Health Administration.

The OMHST is divided into 6 districts located in Fairmont, Buckhannon, Oak Hill, Welch, Danville, and Charleston with a total workforce of one hundred employees of which 41 are assigned to underground, 9 inspectors inspect surface, 35 inspectors actually carry out enforcement activity. The inspectors are typically ex-foremen or mid-level supervisors and a lesser percentage come directly from the ranks of the rank and file miners. The pay that they receive is modest even by state employee standards.

As a rule these inspectors have not received extensive training primarily because the agency is shorthanded and struggles to carry out the statutorily mandated four inspections for each of the states 223 underground mines and two mandatory inspections of the state’s 165 surface mines 123 tipples and load outs, as well as 82 quarries.

In contrast, on the federal level, the MSHA maintains two district offices covering WV, in Morgantown and Mt. Hope, with 300 inspectors and staff. In addition the National Mine Health and Safety Academy and the Approval and Certification Center are both located in West Virginia also provide support for the federal effort.

During the past decade several states have abandoned their enforcement responsibility in favor of the federal agency, and instead focused on education and training. Several industry comments within West Virginia have questioned why WV should not permit the federal government complete jurisdiction over safety and health inspections, given the resource limitations of the state agency and the availability of federal government assets. It is tempting to consider taking steps similar to those of other states who have withdrawn from inspecting parts or all of the
mines of their state. Virginia, for example, no longer inspects the metal and non-metal mines which operate within its’ boundaries; it focuses instead on the education and training role.

Such consideration should be viewed in the context of the reality of mining in WV. As one of the principal mining states of the nation it would not appear prudent or wise to relinquish the state’s authority. Indeed more critical is the positive role the state could play. If one examines accident data historically, the individual state role is significant in raising the safety level above the lowest common denominator, which is achieved by virtue of the federal government effort. While the federal presence has resulted in improvements over time nationwide, strong individual state programs have brought about improvement in the mining sector, in the individual state. Both Ohio and Pennsylvania have had strong state mining health and safety programs and both have seen their average number of accidents fall significantly below the national average.

Further, the possibility of the federal effort being curtailed either as a result of financial or political constraints argues strongly for continued state enforcement. Finally, state efforts to protect its’ citizens would seem to be among the most fundamental of a state government’s obligations.

Therefore, it is critical that the West Virginia continue with it’s enforcement effort including inspections, etc., but it is also be critical for the state to improve the quality and impact of such inspections and enforcement efforts.

Unfortunately, during the course of the past several years there has been a lessening of emphasis on mine safety and health on the part of the state government. Between 1996 and 2000 the state agency’s authority, management and enforcement capability has been severely curtailed. As the following charts indicate, the number of inspectors has declined, the amount of penalties collected in the state has dropped by almost one half, and the position of legal advisor has not been filled since the late 90’s. This has resulted in an overall decline in certain areas of enforcement. For example the number of disciplinary actions/de-certification requests for foreman and midlevel mangers requested by the agency has virtually ceased. As a result of these systemic efforts the State program has suffered, West Virginia currently spends less on safety and health per miner than any surrounding state, and the number of inspections has declined to a ten year low. (See charts on pages 42 and 45)
REQUESTS FOR DECERTIFICATION BY THE STATE
STATE DOLLARS BUDGETED PER MINER

- PA
- VA
- KY
- WV
Furthermore, the authority of the director and the inspectors has been curtailed by limitations placed on the ability to increase the amounts of citations or penalties that can be applied in appropriate circumstances. The result being that the average penalty per citation is $60.00.

One additional action was a change in the funding mechanism for the agency. Prior to 1996 fines collected by the agency were returned to the agency and were part of the budget. Since that time the fines become part of the general revenue rather than part of the agency budget.
IMPROVEMENTS IN THE STATE PROGRAM

The OMHST deals with life and death matters thus where it was determined that immediate steps to improve safety were available they were taken, particularly, concerning those matters that were under the director's control. Other items were identified which would require time or additional changes.

Currently a number of impediments exist which need to be addressed in order to improve the states program and its impact. During the course of the study steps were undertaken which attempted to address certain of these difficulties and also to identify what additional actions were necessary.
West Virginia Inspectable Operations (Contractors & Total Operations) 1990 - 2000 (2000 est.)

- Underground
- Surface
- Coal Handling
- Contractor ID's
- Total Operations


0 1000 2000 3000 4000 5000 6000
WV’s 100 mine safety and health staff members are a dedicated group, who are hampered by an absence of adequate training, by the demands on their time and also by statutory limitations on the enforcement powers including strict limits on the amount of fines which can be levied against a mine operator in particular one who repeatedly violate statutory provisions.

WV law limits the use of elevated or increased penalties by requiring that inspectors find deliberate intent by the operator to violate one of the statutory provisions. In contrast, the federal statute is much less restrictive permitting the federal agency much more latitude in the use of higher penalties.

Further, because of the limited number of inspectors, it is estimated that the state inspector spends only a limited amount of time at each mechanized mining unit - the actual face area of the mine. Given the limited number of inspectors, the number of mines and the requirement that each mine be visited four or two times each year it is estimated that each mechanized mining unit (mmu) is visited by a state inspector only minutes a year, and as the chart on page 52 indicates total inspection demands were doubled over the past ten years.

In addition, the limitation on the inspector’s ability to enhance the penalty level because of repeat violation or disregard of standards has left the inspector with little in the way of enforcement tools with which to ensure meaningful compliance and an accident preventative attitude on the part of the operator. In 2000 the average WV penalty was just $60.00 per violation.
Comparison of Total Inspections 1990 and 1999

- **Total**: 1990 is higher than 1999.
- **Contractors**: 1990 is higher than 1999.
- **Coal Handling**: 1990 is higher than 1999.
- **Quarry**: 1990 is lower than 1999.
- **Surface**: 1990 is higher than 1999.
- **Underground**: 1990 is lower than 1999.
The current level of funding barely permits the agency to complete its mandated twos and fours inspections each year. In order for the OMHST to improve its enforcement efforts an increase in funding is essential. In addition the office operations has been cut back in two ways, first the failure to refill the attorney position and second, the reduction in funding available to the office by the discontinuation of earmarking assessments and collections of penalty dollars for the office use. New funding sources should be considered; a tax of 2 cents per ton of coal produced within the state could provide sufficient funds to develop an improved program.

Until 1997 the OMHST had an attorney on staff that handled the legal affairs of the agency. These matters included de-certification of individuals who had violated the state statute, etc. When that position was allowed to lapse in 1997 that activity as well as other legal activities lapsed. (See chart on page 43). And while the resources available to the agency were being reduced, responsibilities increased, the number of inspectable units nearly doubled between 1990 and 2000. (See page 52).

The OMHST enforcement could be enhanced by the re-establishment of a legal position in the agency that would work directly with the director in developing the agency program.
FEDERAL AND STATE COOPORATION

Training

While West Virginia inspectors, investigators and trainers are among the most committed in the country, improvements in the quality of inspections could be obtained by the development of a continuing education and training program. The presence of the Academy in Beckley provides an opportunity, which should be exploited by several state agencies.

Currently a pilot project involving a modest number of inspectors and investigators has been established to enable the Office to determine how an overall program for all state inspectors could be established. Ultimately, every inspector would go through training every three to four years. Presently, a curriculum for state inspectors is being developed. A more formalized proposal could be put forth as a pilot for other states.

It is contemplated that the state - federal cooperative program, which has begun under this project, will serve as a model for other states in improving the efforts on a state-by-state level.

Miner Education and Training

We examined the education and training resources available in the state and found the following training providers in addition to OMHST: West Virginia University Mining Extension, Bluefield State, Southern Community College, MSHA Educational Field Service, in-house mine trainers, and contract trainers. Based on discussions with OMHST personnel, the majority of the work conducted by in-house mine trainers and private contract trainers is mandated annual retraining, although recently, many private trainers are offering a great deal of Apprentice Miner Training. The MSHA Mine Academy is also an excellent resource for some types of training materials and can be utilized as a distribution point of relevant training materials to trainers in WV.

The OMHST has a close working relationship with West Virginia University Mining Extension Program. This program began in 1913 by offering short courses to miners and has continued through the years, although the number of personnel has decreased in recent years. The Mining Extension Program has recently worked with the OMHST to create a computer based training (CBT) program on electrical substations, safety video and CBT on highwall mining, and has revised and updated the 40-hour Surface Apprentice class materials. This effort will provide a PowerPoint presentation and a CBT on CDs that can be distributed at no cost to mine trainers. The Mining Extension Program contributes a great deal to the OMHST performance on the State Grant from MSHA.
Information Technology

As part of the project the OMHST entered into an agreement with the Mine Safety and Health Administration to share information and to share surplus equipment. As mentioned above MSHA has transferred 63 lap top computers to the OMHST with an additional 17 in the pipeline, valued at $3,000 per unit; these computers will enable the agency to train its inspectors in the use of such devices during inspections and for writing citations.

In addition, a pilot program incorporating the OMHST as part of the Common Platform project of the federal agency has been initiated. This program will improve the states use of and participation in IT. Additional efforts include the sharing of information and data, and the development of compatible software is currently underway.

Training of state inspectors and investigators at the MSHA academy has begun and involves IT and equipment training. Inspectors from the state agency as well as the federal agency also will be trained on new mining equipment. This training is directed at addressing a long-standing shortcoming on a national level as well as the state level.

Both inspection agencies lag behind the industry in their knowledge of new production equipment and electrical systems. Unfortunately, at both the national as well state level inspection forces are playing catch up with the manufacturers and mine operators.

Training at a facility where hands-on experience is available would improve significantly the safety and health impact of such training would have especially among new miners. The experience of the Operating Engineers at the Academy could be used as a model for such a program.

The WV experience in the area of training as well as information technology could serve as a model for other states. This concept of using the federal equipment and facilities, indeed as a training ground for state agencies, was part of the original justification for the Mine Safety and Health Academy but an aspect of the program that has been neglected.

IMPROVING EFFICIENCY OF THE STATE PROGRAM

As part of the project the OMHST filing requirements for operators, trainers and miners were reviewed with an eye toward making these requirements more user friendly, less burdensome and efficient. A number of potential items were identified which it is believed could improve the efficiency and effectiveness of the requirements.
Electronic Filing

The development of electronic filing by state agencies would allow mine operators to complete their required forms electronically, this program could be enhanced by involvement of the MSHA agency which has initiated such a program. At the State level a special program could be introduced to develop an option for a completely paper free filing system for all requirements and forms for the mining industry. A cross agency task force could be established to develop, a model that would include all required filings including applications, permits, etc. for the mining industry generally.

Equipment Certification

While the federal agency has the lead role in the area of certification the state agency shares responsibilities for certification and approval of equipment before it is introduced into the mines. This role could be enhanced by closer coordination with the federal facility, located in West Virginia. The Approval and Certification Center could be tapped for training of inspectors on new equipment as well as specialized equipment.

The Triadelphia office has extensive experience with diesel equipment and testing for diesel exhaust. Since this type of equipment is just now being introduced into WV it makes a great deal of sense to have specialized inspectors, trainers and technical personnel train in that facility at no cost and have the federal agency provide the necessary testing equipment. Perhaps a joint inspection manual could be developed as a pilot project.

Investigations

Accident investigations and investigators could benefit from training at the Academy and also exposure to other federal programs such as the FBI and Police Enforcement Agencies. The cost of such efforts can be prohibitive, however, as a project at the academy with the emphasis on the computer, video and other equipment, such an effort might be done at minimal cost. Contacts with other federal and state agencies could also led to sharing of information and training.

IMPROVING THE OHMST OVERALL EFFORTS

In addition to enforcement and education and training the agency has a number of important responsibilities that were reviewed in regard to improvements in safety and health.
Mine Rescue

The OMHST is the lead agency in the state with regard to Mine Rescue. It maintains a state mine rescue team and is responsible for ensuring that company teams are adequately prepared and in compliance with training requirements and equipment needs. In addition agency personnel participate in the national contest, regional events and organizational efforts. During the course of the past three decades, a severe strain has been put on the mine rescue system across the country.

Changes in lifestyles, distances from the home to the mine and external demands on miners and their families have led to a reduction in the number of persons volunteering for mine rescue.

In addition there is a crying need to enhance the mine rescue capabilities on all levels - federal, state, local, and international, in addition to making improvements in equipment, technology and detection of fires, etc. The participation level among miners, particular new entry miners is quite low. Increasing the public understanding of the crucial role of mine rescue as well as working to increase the participation levels are immediate needs of the mine rescue system. The development of a video program for use on Television is a first step. Improvements in public understanding of mine safety should be undertaken with the University.

Further the role of mine rescue teams should be evaluated in light of the events of September 11, 2001. Mine rescue teams could provide a trained resource group whose knowledge and training could be enhanced through training efforts.

The National HAZMAT Emergency Response Unit of the International Union of Operating Engineers is headquartered at the MSHA facility in Beckley. Currently, the Emergency Response unit is on site at the World Trade Center in New York City providing on the ground training to rescue and recovery workers and security personnel. We have discussed with the unit cross training for the state mine rescue team on chemical, biological and terrorist attacks.

Coordination Within the State

In addition to the OMHST there are numerous offices, agencies, and divisions at both the State government level and at the University level which deal with the mining industry. An overview of these operations could be undertaken to determine potential areas of improvement, overlap and redundancy. Modest, limited pilot projects such as the one filing system for the mining industry mentioned above could be considered. Other states including Washington state and Wisconsin have undertaken similar projects with much success and could provide models for this projects.
Improved coordination and cooperation between the University and other Colleges (Southern West Virginia Community College foreman training program for example) could increase the impact of state dollars as well as improve the opportunities for federal dollars.

Relationship with other Federal Agencies

The relationship between the state and federal mine safety and health office has been previously discussed, there are however several opportunities for improvements in state federal relationships with other related agencies.

The state and federal relationship should be enhanced to take advantage of the resources and experiences within each office. Cooperation with the IT Section, Assessments, Education including the Academy, and Tech. Support should be increased and the pilot program begun with the laptop computers and the special state web site should be built upon to improve the overall state efforts.

The Current Coal Boom

The current coal boom has created increases in the demand for the Office’s services; this in turn has resulted in an increased demand on the staff. Requests for training have increased and stories are circulating that miners from overseas are being recruited. OMHST should assist in the development of a statewide scheme to address the real increase in demand.

The Proposal for A Task Force

During the course of the public hearings it was suggested that a task force of industry and labor representatives as well as state agency personnel be developed to assist in carrying out solutions to the various safety problems. It is one of the recommendations of this report that such a body be impaneled to assist the Director in carrying out the report’s recommendations. It is proposed that such a body be constituted for a term of one year and be charged with assisting the director in carrying out the recommendations of this report.
THE WEST VIRGINIA CAMPAIGN FOR SAFETY AND HEALTH IN THE 21ST CENTURY

As part of the project conversation were held with the principle officials of the major coal producers in WV and also with a number of midsize mine operators from throughout the state. Discussions centered around the development of an aggressive campaign to change the safety and health pattern within the mining community of the state and to lead the state to a position of leadership in safety and health in the country. Further discussions were held with labor officials, MSHA officials, and miners themselves.

What emerged was a consensus that the WV mining community was troubled with the current safety record and was anxious to see that improvements were made. Each major mining company agreed to make a general commitment to address the current safety issues in the state and to take actions that seemed appropriate to ensure that their safety record improved.

At organizations where mine fatal accidents had occurred a more concerted effort was organized and included the development of a comprehensive education and training program for supervisory personnel, the commitment to an independent audit system to review their program over a multiple year process and a public commitment to improve the accident records at their facilities.
RECOMMENDATIONS

1. DEVELOP A NEW SYSTEM FOR DEALING WITH INDEPENDENT CONTRACTORS HEALTH AND SAFETY PROGRAMS, AND MINE OPERATORS RESPONSIBILITIES RELATED TO INDEPENDENT CONTRACTOR EMPLOYEES.

A. Contractor Responsibilities

The extensive use of Independent Contractors has dramatically altered the way mining is conducted in West Virginia. The use of contract employees has changed the employer-employee relationship especially as it relates to safety and health. This change has impacted employer accountability for accidents, education and training of contract employees, the state enforcement scheme, and responsibility for penalties.

There is a need for the development of an entirely new system that addresses Independent Contractors. Independent Contractors are by WV law considered “operators” and they therefore must comply with every aspect of the mining statute. Because of the unique role such contractors are now playing there is a need to develop new standards for such organizations, including the requirement of the development of a mining plan for each mine where there contract employees will be utilized. Comprehensive education and training programs which go beyond the traditional training need to be developed to reflect that these men and women will be in a variety of locations and circumstances and therefore will need additional training, specifically directed toward each mines conditions.

Independent Contractors must maintain complete and up to date record keeping including accidents records and such contractors must specifically address the conditions and accident history for each mine where contractors are assigned,

Each independent contractor will be required as part of their yearly filing requirement to provide a copy of the overall contractor plan, as well as an annual audit of their program in order to ensure compliance with the various requirements.

B. Mine Operators - Responsibilities for Independent Contractors

Each mine operator should be accountable for each accident that occurs on his mine property, whether the victim is his employee or a contractor.

Each operator shall develop a plan to provide appropriate training to deal with the conditions found in the mine when the contract employees arrive. Specifically the safety and health conditions in the location where the contract employee will be located, an orientation for each employee and an orientation to the communications systems at use in the particular mine and finally orientatating the contract employee and crew with respect to safety and health issues.
C. The OMSHT and the WVU Extension Program should develop a new training program that deals with independent contractor issues and the new relationship between mine operators, contractors and contract employees.

2. IMPROVE AND UPDATE REQUIREMENTS RELATED TO ROOF AND GROUND CONTROL METHODS AND CRITERIA

Current criteria for approving roof control plans should be critically reviewed and modified to incorporate the present mining seam conditions, for example whether mining has occurred previously at or near the area to be mined.

Restrictions should be placed on mining techniques or practices where miners have experienced accidents or which have resulted in fatal or nonfatal accidents. For example the use of three-foot bolts should be restricted to only exceptional circumstances.

Pillar mining extraction methods shall only be permitted after a review of current mining conditions to ensure that such the techniques applied take into account the present condition of the mine seam and strata to be mined. Also such mining methods should be critically reviewed in light of the accident experience encountered at other locations and should not be approved unless steps are incorporated which ensure the safety of the miners.

The method of pillar extraction using a Christmas Tree model should be reviewed by both the state and mining industry to determine whether its continued use is appropriate given the number and frequency of fatal and nonfatal accidents which have occurred while this method is being utilized. If an operator wishes to use such methods he should incorporate additional safety precautions that ensure that the miners are adequately protected.

3. THE STATE PROGRAM SHOULD BE STRENGTHENED

A. Funding for the Office of Miners Health, Safety and Training should be increased in order to improve the state effort and to address the issues of independent contractors, increased coal production, and the continuing death and injuries which cause West Virginia to be among the leaders in accidents and injuries annually. Education and Training for state inspectors should be increased.

B. Increase the training of Mine Rescue Teams in order to prepare for additional risks to both the mining industry and to locations outside of the mine property.