



**2015 REPORT TO THE GOVERNOR
NEW MEXICO
BUREAU OF MINE SAFETY**

The State Mine Inspector's 2015 Report to the Governor

Cover Photo by Suzanne Barteau of BMS:

The New Mexico Mining Safety Board is shown at the operations of New Mexico Travertine near Belen, NM. The MSB takes yearly tours of various operations in New Mexico to educate members on mining methods and safety considerations in New Mexico's diverse types of mines.

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Overview

Introduction

The New Mexico Bureau of Mine Safety (BMS) is a department of the New Mexico Institute of Mining & Technology (NMT).

Directed by the State Mine Inspector, the department is a state and federal-funded organization providing services to New Mexico and its miners in numerous areas that include:

Mine Rescue and Emergency Response - Coordination of incident response, equipment and human resources.

Legislative Issues Relative to Miner Safety- Includes being the point of contact for the Governor's office on mine safety related issues and legislation.

Safety and Health Training - Providing safety and health training to mine workers, contractors, as well as federal and state organizations involved in mine-related activities.

The Bureau of Mine Safety and the State Mine Inspector are the representatives of New Mexico responsible for the safety of the State's miners, and accountable at state and federal levels including:

- The Mine Safety and Health Training Program and Coal Mine Official's Certification Program are mandated, certified and audited by the U.S. Department of Labor, Mine Safety & Health Administration.
- Activities including emergency response coordination and compliance with state mining law are State of New Mexico statutory duties of the State Mine Inspector.

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Excellent Miner Safety in New Mexico

Due to the concerted leadership of the governor, legislators, the mining industry, and state and federal officials at many levels, New Mexico has not only demonstrated a commitment to miner safety, but also fostered the necessary environment that upholds excellent mine safety standards.

In 2015 the U.S. mining industry recorded the lowest number of fatalities on record. Coal mining deaths were again at the lowest level ever recorded. New Mexico's 6,000 miners worked fatality free. Additionally, **New Mexico continues to have lower accidents per man hour worked than the national average.**

In the last year significant accomplishments have contributed to miner safety in New Mexico:

Emergency Preparedness

The New Mexico State Mine Inspector (SMI), in conjunction with the New Mexico Department of Homeland Security and Emergency Management (NMDHSEM), continues the process of initiating underground mine operators to the incident command system (ICS) and statewide response capabilities of NMDHSEM and other state, local and industry organizations.

This process will foster a relationship

between NMDHSEM, the State Mine Inspector, and the mining operators of New Mexico, so in the future we will be able to collaborate and operate in a seamless fashion if there is an emergency.

Immediate Application of New Information

Mining safety is an ever-evolving science. Regulatory and technological changes are tracked by the BMS in order to educate the NM mining industry. Educational methods include classroom instruction, newsletters, special bulletins, and conferences with BMS participation.

Training is the Keystone of Safety

The Bureau of Mine Safety exists to actively promote the safety of the miners of New Mexico. BMS trained over 1,900 miners during 2015. This includes over 100 miners trained in Spanish language classes.



BMS classes for the mining industry include classes on workplace examination

BMS training and initiatives have contributed to a superb safety record, including accident rates below the national average.

2015 Accomplishments

Mine Emergency Management

The major initiative in 2015 continued to be establishing an incident command system in response to the following statutory requirement of 69-5-7.A(2) NMSA 1978:

Upon notification of any explosion or other catastrophic event at a mine in which the lives of mine workers are jeopardized or in which fatalities have occurred, the State Mine Inspector shall allocate available resources within a twenty-four-hour time period to assist the mine operator in the rescue of persons and the subsequent accident investigation;

To meet this requirement, the State Mine Inspector has brought together industry, BMS and the Department of Homeland Security and Emergency Management (DHSEM) to create an incident command system. Major efforts have been made on Mine Emergency Response Development (MERD) exercises at our State's underground and surface mining operations. These exercises involve the mine's rescue team, state, federal, local EMS and mining industry groups.

An example exercise scenario was a mock loader roll over accident at Bartoo Sand and Gravel, Inc. It required extrication of a "victim" and transport by local EMS. Howard Bartoo, Presi-

dent of the operation stated "The purpose of training is so people don't make mistakes. But if there is a mistake, an injury or an accident, how prepared are you? I wanted everybody to go through the steps and know what to do. These exercises have been very successful and valuable learning experiences."

BHPBilliton's San Juan #1 underground mine experienced an underground mine ignition in September 2011. All workers safely evacuated the mine. Experience gained from past MERD exercises played a major role in the safe evacuation of the miners.

BMS also supports mine rescue competitions that hone teams' skills in emergency response. BMS's Chris Hefner has judged competitions at regional levels as well as the MSHA national competition. He also prepares the first aid scenario for the yearly SW Mine Rescue Competition.



Chris Hefner of BMS judges miners competing in the Southwest Regional Mine Rescue Competition

Legislative Issues

The SMI worked with the legislature during 2015 to revise the emergency notification statute. Requirements for surface mines that did not enhance miner safety were recommended to be removed. In addition, the SMI was involved with safety issues at the national level through participation in the Interstate Mining Compact Commission (IMCC).

Compliance Assessment

NM Statutes impose strict requirements on the mining industry that must be assessed for compliance by the SMI. Actions completed in 2015 included:

- Review Emergency Notification Plans from approximately 200 mining operations throughout the state. Current status indicates that over 84% of the operators have complied with this requirement. We continue to request information from the remaining operators, although there are no statutory criteria, either through notice of violation or cease-and-desist orders, to require compliance.
- Review underground mine operators' implementation plans to ensure compliance with mining regulations. Review and approval by the State Mine Inspector included constant communications and frequent site visits during 2015.

One violation was issued by the SMI during 2015. Several other incidents were investigated by the SMI for possible violations but more importantly to gather information utilized to education our mining industry of hazards. Special inspections were also conducted at operations.



Compliance assistance was given to Bartoo Sand and Gravel during 2015 at their T or C, NM operation

Compliance assistance continues to be a major responsibility for BMS. The Statutes require the State Mine Inspector (SMI) to provide compliance assistance including on-site audits to any mine requesting such service. This service is particularly valuable to small mining businesses in NM. As the economy improves and aggregate operations begin to recover from the recession, this service will be utilized to a greater degree. Also, as MSHA requires greater compliance on health issues such as dust sampling, diesel particulate matter and noise abatement, more effort will be required assisting operators in health related areas.

Safety and Health Training

Engaging miners, through safety training is one of the primary missions of the BMS. In uncertain economic times, the mining industry in New Mexico has increased the number of miners and contractors seeking training from BMS. This trend is expected to continue into the future and be intensified as industry contracts more activities. Safety & health training was delivered to over 1,900 miners, contractors and other personnel from diverse mining environments. BMS is particularly proud of its miner training program delivered in Spanish.

Coal Mine Officials Certification Program

During 2015, a review of re-certification requirements and testing criteria for coal mining officials was conducted. This has been a collaborative process with the coal mining industry in New Mexico. The data base of questions continues to be reviewed by the BMS to keep testing relevant.

BMS has been working with coal mining companies in New Mexico on the re-certification process for certified coal mine officials in the State. Certifications are valid for five years and then officials



Candidates for Underground Coal Mine Certification during testing at San Juan Coal Company

As the our mines have suffered economic uncertainty, we have enjoyed a period of extremely safe operations, evidenced by accident and fatality statistics. Nationally, 2015 was the safest year on record for mining fatalities. New Mexico continues to have lower accidents per man hour worked than the national average. BMS training and programs were a significant contributor to this success

must be recertified. The SMI has worked with organizations most affected to enact a recertification program that reeducates officials to perform Safely. The SMI recertified 88 coal mine officials in 2015.

BMS also provided testing and certification for 74 miners in 2015.

Mine Safety Awards

BMS was instrumental in arranging the mine safety awards at the annual New Mexico Mining Association meeting in September. There were over 150 attendees at this convention, including representatives of mining companies, contractors, legislators, Governor's cabinet and government agencies. Awards were presented for:

- Safety and Health Innovator Award. This award was given to operators who best implemented innovative safety processes. In 2015, the award was presented to San Juan Coal Company.
- Safe operator of the year award was presented to five operations representing different mine categories. Two of these operators worked for a year with no reportable accidents. These operations prove that "zero" accidents at mines is a very obtainable goal. The other award winners are listed in the table below.
- 174 zero-frequency certificates were awarded to mining organizations throughout New Mexico. These

certificates were given to individual organizations or different departments within larger companies that were accident-free for a year.

We continue to recognize groups and individuals who perform emergency response activities through our Lifesaving Response Award. The mining industry invests many hours in first aid training and mine rescue training. These individuals and groups not only respond at the mines where they work, but also within their communities. Many volunteer as EMTs, first responders, and firefighters where they live, and are often leaders within these organizations. Recognition was given to individuals and the mining organizations that employ and train them. The Lifesaving Response Award was given to an individual or group who responded to a lifesaving situation, either at the mine where they work, or within the community.

Two awards were given in 2015 to Mosaic Potash Carlsbad, Inc. and to Intrepid Potash NM LLC employees.

Mosaic's surface mine rescue team

Safe Operator of the Year

2015 Safe Operator Of the Year		
Category	Company Name	Mine Name
Surface Coal	BHP Mine Management Co	Navajo Mine
UG Metal and Non-Metal	Mosaic Potash Carlsbad Inc	Mosaic Potash Carlsbad
Surface M/NM Mining	Freeport McMoRan	Tyrone Mine
M/NM Mills	Intrepid Potash - New Mexico LLC	Intrepid Potash North
Non-Producing Operations	Freeport McMoRan	Cobre Mine



SMI with Mosaic's Oscar Colorado—Mosaic was a Lifesaver Award Recipient

responded to a serious traffic accident near the mine. They analyzed and managed the scene, stabilized a seriously injured motorist, and secured him until the ambulance arrived.

Intrepid's surface response team responded to a wildfire next to the main highway near the mine site. Intrepid personnel fought the fire, helping to control it until professional fire crews arrived.

The awards were particularly gratifying because of the excellent safety record that New Mexico operations have registered during 2015. We have changed a generation of thinking that said zero accidents was not an obtainable goal, to one that says it is the only acceptable goal.

Communications

In an effort to communicate more effectively and cohesively with the mining industry, our website continues to expand and is updated to insure that information is readily available to the industry as well as the public.

The website address is:

www.bmi.state.nm.us.

During 2015, numerous meetings were held with mining operators throughout the state. These meetings informed industry of BMS's direction and addressed concerns of the operators. A significant effort was also extended to keep information flowing to the Office of the Governor, the NMMA, the Cabinet Secretary of the Energy Minerals and Natural Resources Department, the Director of the New Mexico Mining and Minerals Division and the NMT community.

New Mexico Mine Health and Safety Conference

During 2015 BMS personnel, along with the NM mining industry contributed to bring the eighth annual New Mexico Mine Health and Safety Conference to our State. This event is well attended by representatives of labor, management, contractors, regulators and safety professionals. The event is one of the premier conferences in the country. New Mexico Tech again hosted the function with events held on the campus in Socorro. The conference is approaching 100 attendees along with product exhibitors. These are some of the images of the 2015 event.

Dr. Lowell Catlett from NMSU was the Wenesday Keynote and is pictured with the ever smiling conference committee person Lorraine Archuleta



A conference highlight was the keynote session and extended classroom session with Nationally known safety speaker John Drebinger



MSHA's Camille Holcomb discussed mine health issues



Dr. Eileen Ryan from MRO discussed safety at the the observatory and with their projects



NMT Regent and NM MSB member Deborah Peacock, Mac Burris of MSHA, and Randy Logsdon- Conference Chair

Mining Safety Board (MSB)

The New Mexico Mining Safety Board continues to be a vibrant organization working to ensure the safety of our State's miners. The SMI worked with the MSB during 2015 and continued a program to educate members on various aspects of mining. Meetings were held across the state so mining operations could be toured and experts in technical subject matter were invited to speak at meetings. This will contribute to better decision making by the MSB and better public policy.

During 2015, MSB members' attendance at our meetings was excellent. This is an indicator that MSB members consider the membership rewarding and worthwhile. The MSB lost the services of long time member Larry Bush of United Nuclear Corp. who retired in 2015. Larry's commitment and mining knowledge will be greatly missed.

Federal Grants

The BMS worked on its major grant application during 2015. This application was for renewing the FY 2015 grant agreement between the Mine Safety and Health Administration (MSHA) and New Mexico Institute of Mining and Technology. The grant has been utilized by BMS to train New Mexico miners to meet the training requirements of MSHA as required in 30CFR parts 46 and 48. The grant application and award of the funding continues to be further delayed due to Federal budget issues. We received the Federal FY 2015 grant 7 months into the fiscal year. MSHA continues to offer grants well into the fiscal year making budgeting a difficult process. State allocation has helped with managing our commitments to New Mexico's miners and our small businesses that rely on the BMS training to meet their MSHA regulatory requirements.



MSB members at Bartoo Sand and Gravel, Inc. during January meeting

The MSHA grant is vital to BMS who would have to increase fees for training by a factor of 5 causing a major expense to the operators of small mining operations. It should be noted that BMS does not charge county and state organizations for training. If our grant funding is cut, we will be unable to train these groups.

Counsel from Attorney General

Counsel provided by the Attorney General's Office was utilized in hearings, rulemaking, consideration of violations and other areas of decision making. This service has been invaluable in support of such actions as violations, settlement agreements, statutory issues and other legal issues.

2016 Goals

Mine Emergency Management

During 2016, the Mine Emergency Management process will continue. Our goal of providing for a seamless incident command structure between the mining operation, state officials, federal inspectors and local emergency response organizations in the event of a mine emergency will be enhanced by performing extensive drills at mine sites.

The 2016 goal is to complete another functional exercise. The State Mine Inspector in conjunction with DHSEM personnel will work with local, county, state emer-

gency managers, as well as federal and state mine safety personnel. Currently a table top exercise is planned at the WIPP project that will involve all these groups.

BMS will continue our efforts on mine rescue competitions in conjunction with industry and MSHA. Staff will be provided for the South West Regional Mine Rescue Competition and for the national competition.

Legislative Issues

The SMI will continue to act as a contact and informational source regarding any mining legislation involving mining safety. During 2016, the SMI will work with legislators, unions and industry representatives to implement changes in statutes that will enhance mining safety .

Mine Safety Inquiries from the Office of the Governor

The office of the New Mexico State Mine Inspector will continue to be the focus for the Office of the Governor for information and expert opinion regarding mine safety issues. Response to these inquiries will continue to be handled expeditiously. The SMI will also continue active involvement with the Interstate Mining Compact Commission on the IMCC safety committee giving New Mexico a voice on national mining safety issues.

Compliance Assessment

During 2016 compliance assessment will continue to be a priority for BMS. Compliance assessment consists of reviewing mine operations on a yearly basis. The emergency notification plans for all mine operators will be reviewed annually as well. BMS works with the operators on any unresolved issues or gaps in the plans.

Safety and Health Training

Safety and health training will continue as the keystone to continued accident reduction in New Mexico. We anticipate training 1,900 miners in 2016. It is anticipated



BMS trains contractors such as this drill crew from Daniel B. Stephens that work on large mining operations drilling for hydrologic monitoring

That cut backs in the mining industry will produce a need for greater training capabilities from the BMS due to mining companies utilizing more contractors. It is also anticipated that Spanish-language training will be a growing need in New Mexico. Currently this training is limited. The BMS

is one of the few organizations with a trainer who is both fluent in Spanish and a MSHA certified instructor. At current funding levels the BMS training program will continue to meet current demand into 2016 and can be modified for the needs of contractor expansion.

Certification of Coal Mine Officials

The coal officials' certification program will continue to be updated to remain relevant. Review of material required for recertification continues with operators regarding the recertification of officials and the continuing implementation of that process. It is anticipated that a cost savings can be realized by BMS without sacrificing miner safety due to the changed requirements for recertification from "testing" to a program of retraining and continuing education requiring SMI approval and monitoring. BMS will continue to recertify officials before yearly expiration dates of their certificates.

Mine Safety Awards

BMS will continue this critical tool to communicate successes of safety programs throughout New Mexico. In order to continue this program, it is important to maintain the partnership between BMS and NMMA. The BMS also plans to communicate the availability of the program to encourage participation by more of the New Mexico mining industry.

Communications

The BMS plans several initiatives in 2016 to increase our communications with the public and the mining industry. Our goal for 2016 is to utilize a revamped website as our primary communication tool. The site will be the primary source for training schedules, monthly newsletters, BMS reports, emergency mine notification and other mine safety issues. Effective communications with customers will continue to be a major goal of 2016. As in 2015, interaction with the mining community, the Office of the Governor, NMT staff and other governmental entities will continue to be a communications focus.

Mining Safety Board

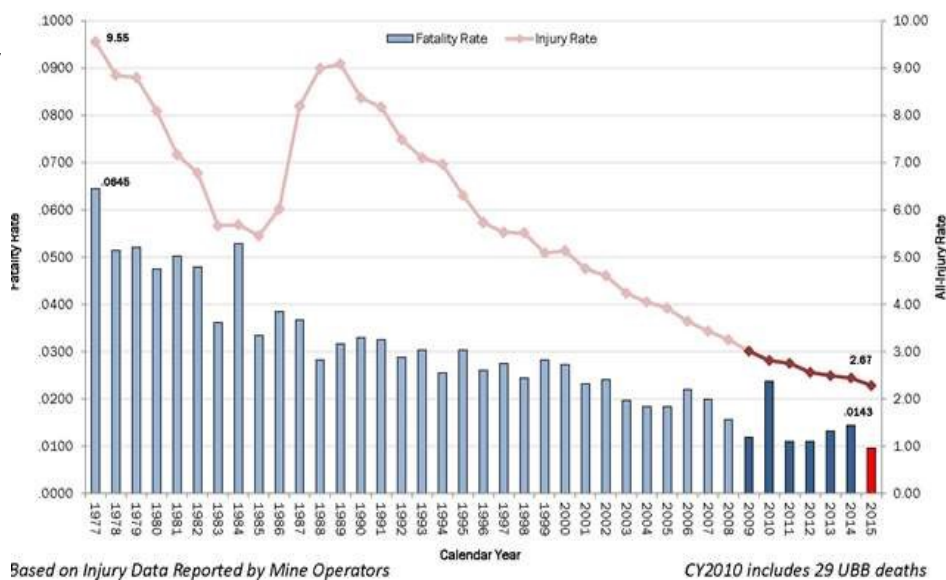
Education and regulatory policy will be a primary focus of the MSB. Contributing to the overall safety of NM miners and continuing our excellent safety performance will also be a priority of the MSB.

2015 Fatality Free in New Mexico

New Mexico's more than 6,000 miners worked 2015 fatality free. We are proud

Figure 1. Mining Industry Fatality and Injury Rates are at an all time low in 2015

US Mines - Fatality and All-Injury Rates CY 1977 – 2015



Based on Injury Data Reported by Mine Operators

CY2010 includes 29 UBB deaths

that every miner in our state returned home every day of the year to their families.

Across the nation for 2015, mining fatalities were at their lowest level ever reported (see figure 1).

The accident incident rate for all our mines in New Mexico was below the national average in 2015. In addition, mining at a national level enjoyed its best record in history in terms of fatalities and injury incident rates.

The trends in mining safety have been continually downward in terms of fatalities and reportable accidents, both nationally and in New Mexico. In these terms, mining ranks below the average of all industries in the US, contrary to its reputation as a dangerous occupation. The statistical improvements in safety have occurred for a variety of reasons. These have included better training of our miners, different approaches to risk management

by mining companies, technical advances in equipment and systems and laws and regulations.

New Mexico miners had a reportable incident rate that was 25% below the national average. While this is a significant accomplishment, we believe that New Mexico should have the lowest incident rate in the country and that will remain our goal.

Roster of State Mine Inspectors

NAME	DATES	ORDER	LENGTH OF SERVICE
Rees H. Beddow	1912 - 1916	1 st	4 yrs
W. W. Risdon	1916 - 1919	2 nd	3 yrs
Jo E. Sheridan	1919 - 1920	3 rd	<1 yr
W. W. Risdon	1920 - 1925	4 th	5 yrs
Warren Bracewell	1925 - 1927	5 th	2 yrs
W. W. Risdon	1927 - 1931	6 th	4 yrs
Warren Bracewell	1931 - 1947	7 th	16 yrs
John Anthony Garcia	1947 - 1959	8 th	12 yrs
John Grbac	1959	9 th	<1 yr
William H. Hays	1959 - 1973	10 th	14 yrs
Joe D. Longacre, Sr	1973 - 1981	11 th	8 yrs
Desi Apodaca	1981 - 1982	12 th	2 yrs
Manual Duran	1982 - 1986	13 th	4 yrs
Desi Apodaca	1986 - 1996	14 th	10 yrs
Gilbert Miera	1996 - 2002	15 th	6 yrs
Paul Pierce	2002 - 2005	16 th	3 yrs
Rebecca Boam	2005 - 2006	17 th	2 yrs
Terence Foreback	2007 -	18 th	8 yrs



Mining Safety Board members inspect back and wall conditions at Intrepid Potash underground mine near Carlsbad, NM

Right: MSB members visit dimension stone cutting building of NM Travertine in Belen, NM



Below: MSB members inspect solution mining facility of Intrepid Potash near Carlsbad, NM



MSB member Allen Norris of Dicaperl Minerals is shown during a MSB tour to Bartoo Sand and Gravel operations near T or C, NM



Afterword

The State Mine Inspector is proud to serve on the New Mexico Mining Safety Board (MSB). The MSB consists of dedicated miners representing management and non-management positions at diverse mining operations and geographic areas. The MSB is responsible for promulgating our safety regulations in New Mexico. Members serve with skill, dedication, and the high level of attention to their own safety, that of their co-workers and the safety of all miners in New Mexico. This commitment has resulted in New Mexico's accident rates being consistently below the national average. Throughout the years the MSB has scheduled meetings throughout the state in conjunction with tours of New Mexico's diverse mining operations. Photos from those tours are the feature of this year's Afterword section.



MSB members prepare to take the hoist into the underground Mosaic Potash mine near Carlsbad, NM