U.S. Department of Labor
Mine Safety and Health Administration
Protecting Miners' Safety and Health Since 1978

Northeast Newsletter

Winter 06/07 | **Northeast District; James R. Petrie, Manager** | **Warrendale, Pennsylvania**

NO FATALITIES IN THE NORTHEAST DISTRICT MNM FOR THE FIRST QUARTER FY07 OCTOBER - DECEMBER

2002	2003	2004	2005	2006
42	26	27	35	25

METAL AND NONMETAL MINES

HAD A TOTAL OF 25

FATALITIES FOR 2006,

THE LOWEST ON RECORD

NATIONAL MNM FATALITIES		2006	
		Under Ground	Surface
ELECTRICAL		0	5
FALL/SLIDE MATERIAL		0	5
FALL OF FACE/RIB/HIGHWALL		0	1
POWERED HAULAGE		1	6
MACHINERY		0	4
SLIP/FALL OF PERSON			3
YEAR END TOTALS		1	24

REMEMBER.....SAFETY IS NOT A GOAL, IT'S A WAY OF LIFE!

Best Practices

- **Take the TIME to work safely. Do not hurry.**
- **Plan work tasks to eliminate exposure to all possible hazards.**
- **Block machinery components against hazardous motion before performing maintenance work.**
- **Provide and maintain safe access to all working places.**
- **Persons experienced in examining ground conditions must conduct an inspection in the area prior to work commencing, after blasting, and as conditions warrant throughout the shift.**
- **All miners must be trained in and follow safe work procedures.**
- **When there is a danger of falling, wear safety belts and lines.**
- **Always wear your seatbelt.**
- **Stay alert to all of the work occurring around you.**

http://www.msha.gov/Alerts/2006MNMFatalities.pdf

Metal/Nonmetal Fatalities for 1900 Through 2005

Total Number of Metal/Nonmetal Mining Fatalities from 1900 through 2005: 23,513

Please Note:
Sand and gravel miners included starting in 1958.
Office workers at mine sites included starting in 1973.

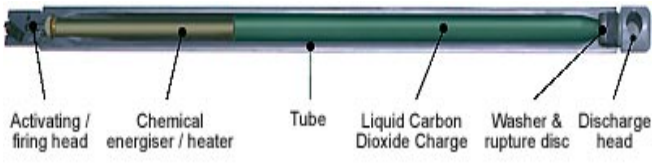
Year	Miners	Fatalities	Year	Miners	Fatalities	Year	Miners	Fatalities	Year	Miners	Fatalities
1900	N/A	N/A	1930	N/A	376	1960	289,001	185	1990	235,690	56
1901	N/A	N/A	1931	159,007	225	1961	279,178	127	1991	230,107	53
1902	N/A	N/A	1932	116,079	139	1962	269,927	216	1992	224,567	43
1903	N/A	N/A	1933	125,347	159	1963	259,926	173	1993	219,320	51
1904	N/A	N/A	1934	138,689	181	1964	260,939	179	1994	225,498	40
1905	N/A	N/A	1935	177,160	222	1965	263,072	180	1995	229,536	53
1906	N/A	N/A	1936	193,957	308	1966	261,993	195	1996	229,045	47
1907	N/A	N/A	1937	217,020	310	1967	255,999	181	1997	235,915	61
1908	**N/A**	**N/A**	**1938**	**192,567**	**247**	**1968**	**246,039**	**182**	**1998**	**235,561**	**51**
1909	**N/A**	**N/A**	**1939**	**203,843**	**232**	**1969**	**246,677**	**179**	**1999**	**238,852**	**55**
1910	**N/A**	**N/A**	**1940**	**213,619**	**307**	**1970**	**242,788**	**165**	**2000**	**240,450**	**47**
1911	**N/A**	**883**	**1941**	**226,220**	**322**	**1971**	**237,059**	**164**	**2001**	**232,770**	**30**
1912	**N/A**	**874**	**1942**	**210,409**	**361**	**1972**	**185,115**	**234**	**2002**	**218,148**	**42**
1913	**N/A**	**866**	**1943**	**183,726**	**314**	**1973**	**246,665**	**175**	**2003**	**215,325**	**26**
1914	**N/A**	**739**	**1944**	**158,282**	**237**	**1974**	**271,606**	**158**	**2004**	**220,274**	**27**
1915	**N/A**	**701**	**1945**	**145,637**	**174**	**1975**	**277,978**	**123**	**2005**	**233,044**	**35**
1916	**N/A**	**870**	**1946**	**162,408**	**181**	**1976**	**278,605**	**113**			
1917	**N/A**	**983**	**1947**	**174,586**	**220**	**1977**	**285,165**	**134**			
1918	**N/A**	**771**	**1948**	**176,364**	**203**	**1978**	**288,577**	**136**			
1919	**N/A**	**581**	**1949**	**182,638**	**152**	**1979**	**308,085**	**123**			
1920	**N/A**	**603**	**1950**	**180,955**	**164**	**1980**	**301,635**	**103**			
1921	**N/A**	**350**	**1951**	**185,244**	**175**	**1981**	**296,848**	**84**			
1922	**N/A**	**476**	**1952**	**186,463**	**209**	**1982**	**230,025**	**51**			
1923	**N/A**	**510**	**1953**	**188,692**	**161**	**1983**	**214,661**	**62**			
1924	**N/A**	**556**	**1954**	**177,425**	**139**	**1984**	**219,727**	**80**			
1925	**N/A**	**520**	**1955**	**184,239**	**157**	**1985**	**218,112**	**57**			
1926	**N/A**	**584**	**1956**	**200,807**	**172**	**1986**	**209,638**	**49**			
1927	**N/A**	**487**	**1957**	**219,151**	**152**	**1987**	**213,532**	**67**			
1928	**N/A**	**392**	**1958**	**269,076**	**167**	**1988**	**225,422**	**49**			
1929	**N/A**	**476**	**1959**	**288,560**	**173**	**1989**	**234,459**	**48**			

http://www.msha.gov/stats/centurystats/mnmstats.htm

Cardox in Mining

Originally developed for safe use in gassy coal seams, the Cardox System is now widely used for both coal and other mining applications. In addition to pits and quarries, it is used to clear build-ups and blockages in bins, silos, preheaters, cyclones, cooler areas, rotary kilns, and other vessels.

How Cardox works:



A small electrical charge is applied to a chemical heater (a potassium chlorate mixture) which vaporizes liquid carbon dioxide that has been placed in a Cardox tube. This conversion expands the CO2 volume and builds up pressure inside the tube until it causes the rupture disc at the end of the tube to burst. This releases the C02 - now 660 times the original volume - through a special discharge nozzle to create a powerful heaving force, at pressures up to 40,000 psi (3,000 bar). This all takes place in milliseconds.

Carbon dioxide gas is an inert gas that is commonly used in fire extinguishers, so it is safe to use without fear of generating secondary reaction with gases in the vessel, silo, or mine. In addition, the quick release of the gas refrigerates the discharge, bringing it to a temperature low enough to avoid ignition of any air-gas mixture inside the mine or blocked vessel.

Cardox shell shown in a surface blast pattern. (left)

Cardox sockets on a rotary kiln at a cement plant. (right)

Just two tubes used to excavate up to 70 tons of granite.

This article does not address all regulations relative to explosives. Please see Subpart E of 30 CFR for a complete listing of MSHA explosives. Please call the nearest MSHA office for additional information.

Safety with Cardox

Some of the chief safety concerns in a Cardox System used in metal and nonmetal mining applications are the storage, transportation, and handling of the chemical heaters.

Potassium chlorate is a crystalline salt that serves as an oxidizing agent in a Cardox System. It is defined as a low-grade explosive by both ATF and DOT regulations.

The chemical heaters containing potassium chlorate should be stored in a magazine. They cannot be stored in the same magazine with detonators.

Only person trained and experienced in the handling and use of explosive material shall direct blasting operations and related activities.

The chemical heaters shall be transported without undue delay to the storage area or blast site. They shall be carried to and from the blast site in closed, non-conductive containers (not in a container with detonators).

Chemical heaters may be stored in a day box as long as it is locked or attended and emptied at the end of each shift (or attended) with the contents returned to a magazine.

All access routes to the blast site shall be guarded or barricaded. Ample warning shall be given to allow persons to evacuate. Clear exit routes shall be provided for persons firing the round. No work shall resume in the area until a post-blast examination has been conducted.

More information on Cardox can be found on the internet.

For copies
http://www.msha.gov/DISTRICT/MNM/NEDIST/NEHOME.HTM
For comments: ***park.bret.@dol.gov*** .or call (724-772-2333

ONE CALL
DOES IT ALL!

Immediately Report Accidents to MSHA at

1-800-746-1553

24 Hours a Day, 7 Days a Week, 365 Days a Year

IT'S THE LAW!

Beginning December 8, 2006, mine operators are required by the Emergency Mine Evacuation Final Rule to call the MSHA Call Center at 1-800-746-1553 to notify MSHA of immediately reportable accidents. Mine operators are required to notify MSHA immediately, but in no case later than 15 minutes after they know or should know an accident has occurred. For more information, visit www.msha.gov.

United States Department of Labor
MSHA
Mine Safety and Health Administration

Immediately Reportable Accidents and Injuries

ONE CALL DOES IT ALL!

Mine operators are required to immediately call ***MSHA's toll-free number*** at 1-800-746-1553 to notify MSHA of an immediately reportable accident. This single toll-free phone call is required by the **Emergency Mine Evacuation Final Rule** published in the Federal Register on December 8, 2006, and is the **only call that mine operators will need to make to notify MSHA**.

Mine operators must call immediately, but no later than 15 minutes from the time they know or should know that an accident has occurred.

Immediately Reportable Accidents and Injuries are:

1. A death of an individual at a mine;
2. An injury to an individual at a mine which has a reasonable potential to cause death;
3. An entrapment of an individual for more than thirty minutes or which has a reasonable potential to cause death;
4. An unplanned inundation of a mine by a liquid or gas;
5. An unplanned ignition or explosion of gas or dust;
6. In underground mines, an unplanned fire not extinguished within 10 minutes of discovery; in surface mines and surface areas of underground mines, an unplanned fire not extinguished within 30 minutes of discovery;
7. An unplanned ignition or explosion of a blasting agent or an explosive;
8. An unplanned roof fall at or above the anchorage zone in active workings where roof bolts are in use; or, an unplanned roof or rib fall in active workings that impairs ventilation or impedes passage;
9. A coal or rock outburst that causes withdrawal of miners or which disrupts regular mining activity for more than one hour;
10. An unstable condition at an impoundment, refuse pile, or culm bank which requires emergency action in order to prevent failure, or which causes individuals to evacuate an area; or, failure of an impoundment, refuse pile, or culm bank;
11. Damage to hoisting equipment in a shaft or slope which endangers an individual or which interferes with use of the equipment for more than thirty minutes; and
12. An event at a mine which causes death or bodily injury to an individual not at the mine at the time the event occurs.

http://www.msha.gov/codeaphone/ReportableInjury.asp

2007 MSHA/NSSGA
Spring Thaw Safety Workshop's
Take Time For Safety!

WHO SHOULD ATTEND? Owners, Mine Managers, Supervisors, Foremen, Miners (laborers) and Independent Contractors who do work at mine/quarry properties.

Workshop's will run 9:00 a.m. - 4:00 p.m. Registration opens at 8:30 a.m.
Workshop's are provided at no cost with food and refreshments provided at most locations!!

WORKSHOP LOCATIONS

DATE	LOCATION	CITY	COORDINATOR
February 8th Albany Field Office 518-489-0573	**Albany Airport Inn (Best Western Hotel)** Wolf Road Albany, NY 12205 518-459-2181	Albany,NY	Scott McKenna 518-623-2352
February 27th Manchester Field Office 603-666-7691	**Royal Plaza** 181 Boston Post Road Marlborough, MA 01752 508-460-0700	Marlborough, MA	Vic Goulet 978-805-9740
March 1st Geneva Field Office 315-789-0523	**RRM Safety Center** 304 West Second Street East Syracuse, NY 315-474-3374	Syracuse, NY	Dave Kurz 315-469-5501
March 6th Wyomissing Field Office 610-372-2761	**The Inn at Reading** 1040 Park Road Wyomissing, PA 19610 610-372-7811	Reading,PA	Ron Witt 610-222-3142
March 13th Charlottesville Field Office 434-975-2366	**The Cultural Arts Center in Glen Allen** 2880 Mountain Road Glen Allen, Virginia 23060 804-261-2787	Glen Allen, VA	Jeff Black 703-581-7086
March 21st Warrendale Field Office 724-772-2333	**Celebration Hall** 2280 Commercial Drive State College, PA 16823 814-238-0824	State College, PA	Sam Scribe 814-236-1113

Don't miss the opportunity to hear from MSHA Management and some of the top Safety Trainers and Professionals of the Northeast!

Topics to be Presented:

Health and Safety topics presented will be to provide Mine Operators with timely and current accident prevention information as well as training tools to bring back to your operation. Topics will include hazard assessments and safe work procedures regarding mobile equipment, maintenance, plant, workplace examinations just to name a few.
Regulatory up-dates and initiatives from MSHA will also be provided

RSVP

Please RSVP with your local MSHA field office.