Issue 1 ▪ 2013

coal ENERGY

From the Mine to the Utility

REMEMBERING OUR MINERS LOST IN 2012

COAL HITS RECORD HIGH

WORLD NEWS: SOUTH AFRICA

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letter from THE PUBLISHER

MARCH 2013

Dear readers,

Welcome to Issue 1, 2013.

COAL HAS HIT A RECORD HIGH IN THE WORLDS ENERGY MIX!

With that, comes the topic of carbon sequestration… so we take a minute to look at China's 2013 Mission for Carbon Sequestration.

How does the USA measure up? What are your opinions on the future of carbon capture in the US?

Mr. Siegels article regarding coal's record high has been included and we hope to obtain your feedback in this sound off article.

We have been very busy lately preparing for the launch of our new website www.coalenergyonline.com, preparing an online buyers guide, and updating our e journal delivery database. With the ongoing trend and convenience of electronic publications, we are pleased to inform you our online readership is increasing daily. If you wish to switch from print edition to digital delivery please email info@martonickpublications.com with your subject line as Digital Delivery.

I am pleased to announce the additional launching of our new facebook page. Stay tuned to our website for more information.

You will always find a section of Coal Energy dedicated to remembering the lives sacrificed every year for our industry. In this issue we remember each of our miners lost in 2012. A special thank you to our sponsors for their continued support. If you are interested in helping to support the memorials please contact me directly at maria@martonickpublications.com.

From time to time, we are including recently released membership lists for the coal associations. Use this information to help you decide which association(s) best fit your networking, sales, and marketing needs.

In World Coal we take a look at South Africa.

We extend a warm appreciation to our supporting advertisers, please support them as they make the publication you are reading possible.

And again, thank you for picking up, or clicking on, another edition of Coal Energy.

If you have any questions, editorial submissions, advertising interest or just comments about Coal Energy please feel free to email me directly at maria@martonickpublications.com.

Warmest regards,

Maria Martonick

President

Martonick Publications, Inc.

ASSOCIATION COMPARISONS

AMERICAN SOCIETY OF MINING AND RECLAMATION

Mission
ASMR, American Society of Mining and Reclamation, was established in 1983 to serve the mining and reclamation community as an outlet for scientific research and demonstration papers through annual National meetings. These reclamation projects include activities associated with all kinds of drastically disturbed lands.

Originated in: 1983
Dues: $50 - $1000

For more information:
http://fp1.ca.uky.edu/asmr/

NATIONAL COAL TRANSPORTATION ASSOCIATION

Mission
The Mission of the NCTA is to provide education and facilitation for the resolution of coal transportation issues in order to serve the needs of the general public, industry, and all modes of transportation.

This is accomplished through the sponsoring of educational forums and providing opportunities for the lawful exchange of ideas and knowledge with all elements of the coal transportation infrastructure.

Originated in: Not listed
Dues: $1250

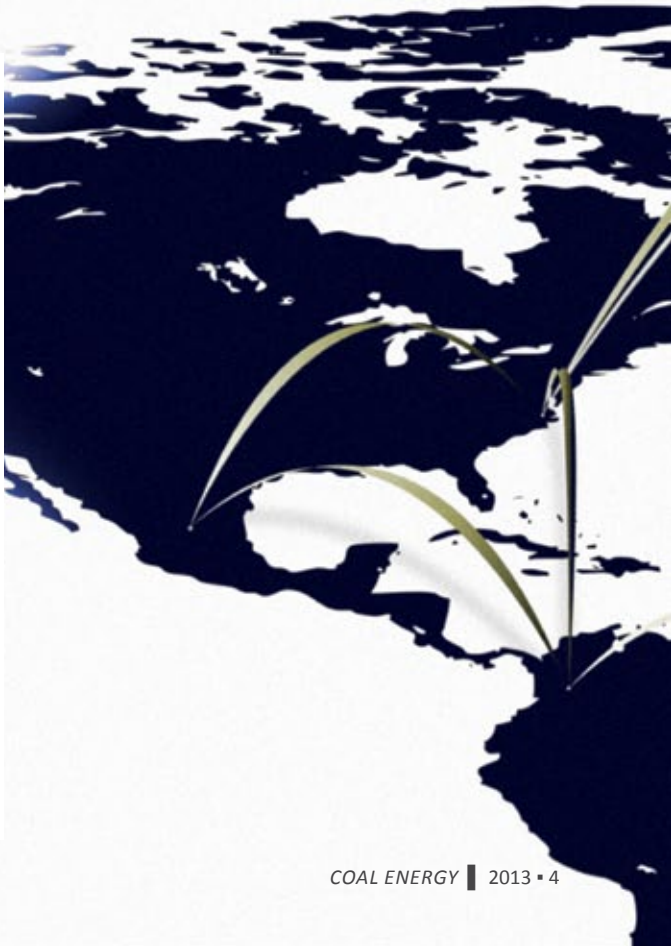
For more information:
www.nationalcoaltransportation.org

NATIONAL MINING ASSOCIATION

Mission
NMA is the public policy voice of one of America's great basic industries whose primary mission is helping the nation realize the contribution made to our economic well-being and quality of life by resources derived from mining.

Originated in: Not listed
Dues: Not listed

For more information:
www.nma.org

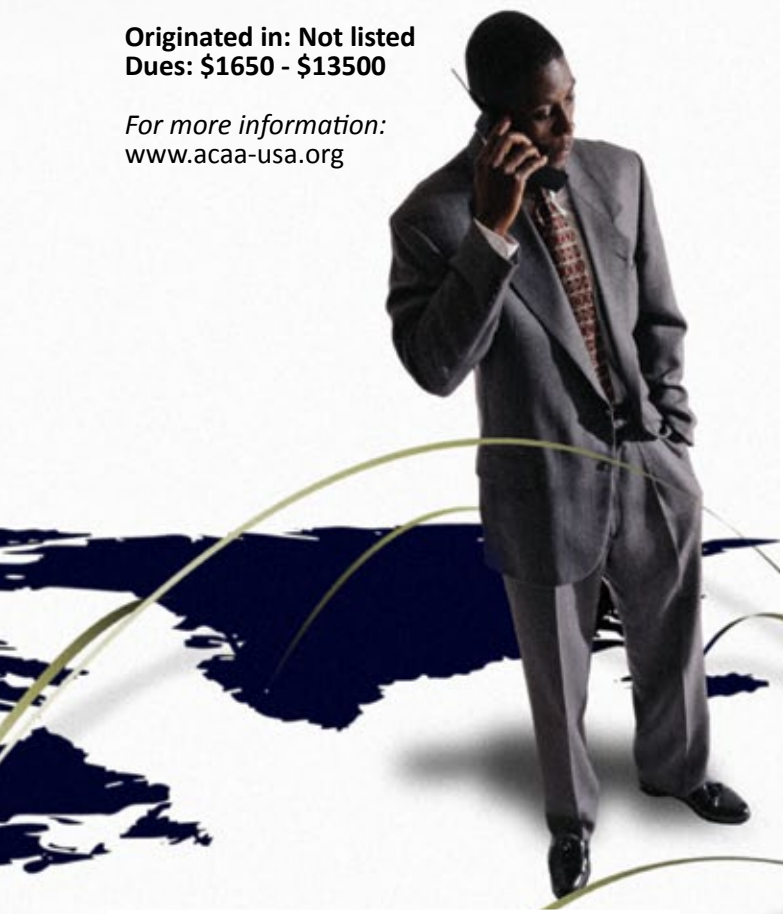


AMERICAN COAL ASH ASSOCIATION

Mission
The ACAA advances the management and use of coal combustion products in ways that are environmentally responsible, technically sound, commercially
competitive and more supportive of a sustainable global community.

Originated in: Not listed
Dues: $1650 - $13500

For more information:
www.acaa-usa.org



AMERICAN COAL COUNCIL

Mission
The American Coal Council (ACC) is dedicated to advancing the development and utilization of coal as an economic, abundant/secure and environmentally sound energy fuel source.

The Association promotes the lawful exchange of ideas and information regarding the coal industry. It serves as an essential resource for companies that mine, sell, trade, transport or consume coal. The ACC provides educational programs, advocacy support, peer-to-peer networking forums and market intelligence that allow members to advance their marketing and management capabilities.

Originated in: 1982
Dues: $2500

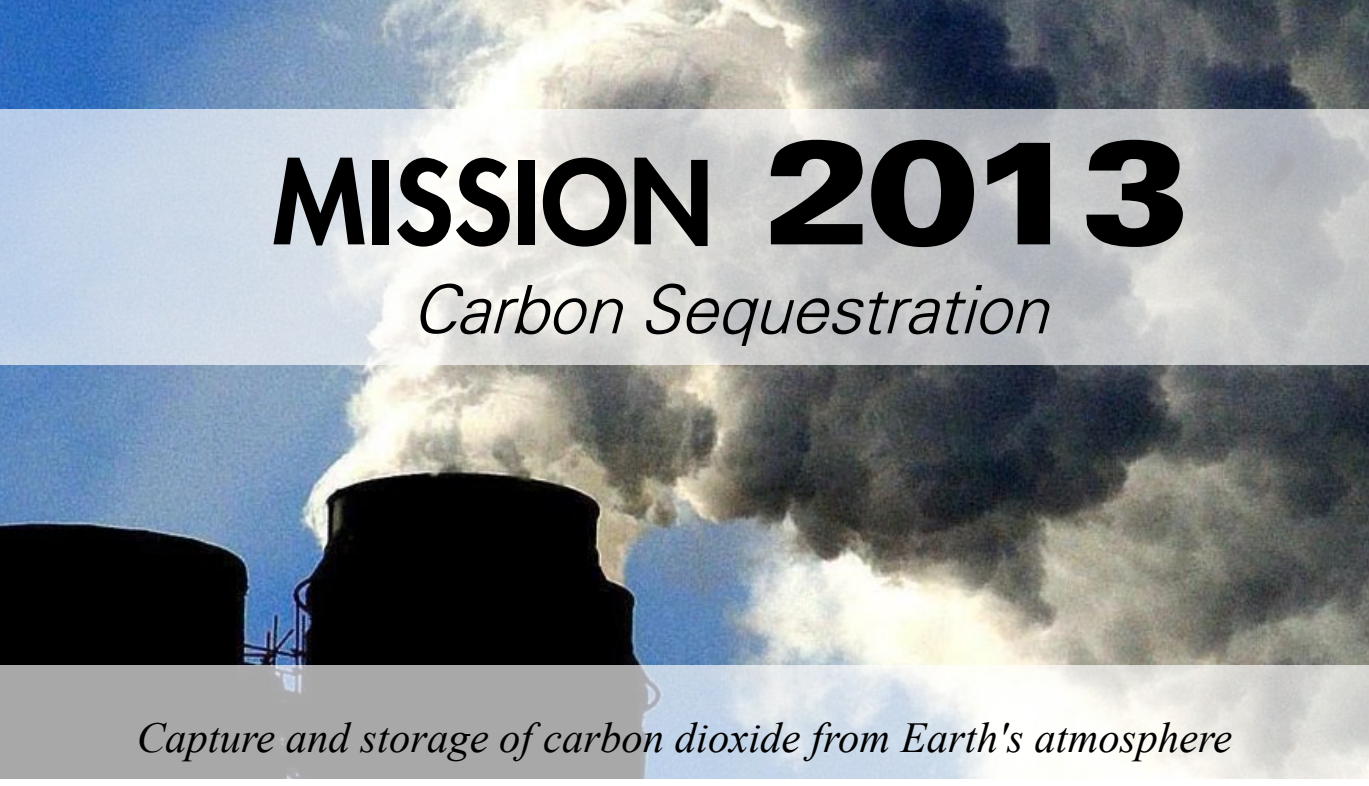
For more information:
www.americancoalcouncil.org

RMEL

Mission
It is RMEL's mission to provide a forum for education and the sharing of ideas to better serve the electric energy industry and its customers.

Originated in: 1903
Dues: $200 - $3250

For more information:
www.rmel.org



MISSION 2013

Carbon Sequestration

Capture and storage of carbon dioxide from Earth's atmosphere

CASE STUDY - CHINA

(New Europe, 2009)

Background

As of 2006, China became the world's biggest producer of CO2 with 6200 metric tons of CO2 produced that year (Vidal & Adam, 2007). Now, China emits the greatest amount if greenhouse gases worldwide (Hilton, 2009). As China's economy continues to develop, its emissions are expected to increase even more during the next several decades. Even with the most optimistic outlook, the country's CO2 emissions are still expected to increase by 80% by 2030 (Mrasek, 2009). The most optimistic outlook includes immediately equipping all new coal power plants with carbon capture and storage (CCS) technology (Mrasek, 2009). Prior to the realization of its position as the leading CO2 producer, China was reluctant to adopt policies that would reduce its emissions, despite its increasing CO2 emissions. Instead, it adopted a stance that placed most of the responsibility and blame for high global levels of CO2 on already developed countries such as the US, and called for stricter limits on those countries, thus placing them at odds with other nations (Bradsher, 2006). Such a stance is partly justified since "about a third of all Chinese carbon emissions are the result of producing goods for export," mostly to the US and Europe (Clark, 2009).

Fortunately, China has recently adopted a less defensive stance. As of right now, China is much more receptive to limitations on their CO2 emissions. In fact, China is now the world's leading investor in renewable technologies, and Beijing aims to stabilize emissions by 2020. Also, China has increased its goal of 15% renewable energy by 2020 to 20% (Hilton, 2009). They have also looked into other options, such as CCS technology. All of this is being done despite the fact that the Kyoto Protocol, the first significant international agreement on climate change mitigation, exempted developing nations like China from having to take on reduction targets (Hilton, 2009). China may be able reduce its emissions alone, but will do so with more success in collaboration with other countries, especially the US (Hilton, 2009) (Qian, Peridas, Chen, Qiu, Friedmann, Li, ... Zhao, 2009). Serious discussions have already taken place, such as the talks between President Obama and President Hu Jintao on November 17, 2009, and more cooperation is expected in the future (Schmidt, 2009)(The White House Office of the Press Secretary, 2009a).

Sequestration Potential

Carbon capture and sequestration technologies hold great potential, and "CCS is estimated to be capable of contributing 15 to 55% of worldwide cumulative carbon emission reductions through 2100." China still relies heavily on coal for power despite great strides in the use of renewable energy, and is expected to still produce half of its energy through coal in the year 2020. Yet, China is in a good position to implement CCS technology. The "[c]osts for carbon capture are likely to be lower [in China] than in Western countries due to lower fuel, material, and labor costs." The proximity of relatively pure producers of large quantities of CO2 to possible sinks will reduce the costs of transport. 83% of all CO2 sources and 75% of high-purity CO2 sources are located within 80 km of a CO2 reservoir. It is thought that China has enough deep saline formation to sequester up to 3,066 GtCO2. The abundance of relatively pure sources of CO2, such as those from the production of ammonia, adds to the relative ease of CCS. Moreover, "[t]he cost of CCS for several of these sources [high purity CO2 streams] can be in the region of $10 to 20 per tCO2, lower than typical estimates for Western countries." China's geology also allows for great CO2-enhanced oil recovery (EOR) and enhanced gas recovery (EGR) opportunities which further reduce the net costs of carbon sequestration through increased oil and gas production (Qian, et al., 2009).

Sites of point source emissions in China (Li, et al., 2009)

Sites of CCS potential in China

Summary of China's Potential CO2 Storage Capacity (by type of storage option) (Qian, et al., 2009)

	Deep saline formations (MtCO2)	Oil fields by proved OOIP (MtCO2)	Gas fields by proved OGIP (MtCO2)	Unmineable coal seams (MtCO2)
Onshore	2,288,000	4,600	4,280	12,000
Total	3,066,000	4,800	5,180	12,000

However, to make CCS in China successful, additional funding from both the Chinese government and international sources is needed, as well as collaboration with other countries. Such cooperation can occur in the form of shared research ventures and recommendations on possible regulations for China based on the past experiences of other nations. Considering recent strides in China's relationship with the United States (The White House Office of the Press Secretary, 2009b), and China's own interest in reducing carbon emissions (Xinhua, 2009), plans for CCS have become much more feasible. Nevertheless, "CCS has yet to be proven feasible and cost effective on a large scale" (Schell, et al., 2009). Thus, CO2 sequestration projects in direct coal-to-liquid plants, such as the one at Ordos Basin, which was designated the first large scale CO2 sequestration project in China, will gain greater significance (Schell, et al., 2009). Overall, the three areas that need funding the most are projects to test technologies and regulation, research to discover offshore basins to sequester carbon from heavily-industrialized eastern and southern coastal regions, and assessments of China's onshore sedimentary basins. In terms of policy, there are no regulations that specifically prohibit CCS in China right now.

Sites of CCS potential in China (Qian et al., 2009)

Carbon sinks in China (Li et al., 2009)

Emissions Reduction (Qian, et al., 2009)

Many specific plans are being made to sequester CO2 in China. Some of these plans are presented in the "Identifying Near-Term Opportunities for Carbon Capture and Sequestration (CCS) in China" report by the Natural Resources Defense Council (NRDC), where the following projects are listed (Qian, et al., 2009).

Project	Location	Company	Status	Operational Date	Injection	Source
US-China	Nearby saline aquifer in Ordos Basin of Inner Mongolia	Shenhua Group	In Planning	2010/11	2.9 Mt pure CO2 per year	direct coal liquefaction facility
GreenGen	Bohai Basin in Tianjin	Huaneng Group	Under construction	2012/2013	25,000 to 30,000 tCO2 per year	250 MW IGCC plant
	Langfang (Beijing area)	China Power Investment Corporation	Awaiting approval by government	Unknown	8% of CO2 produced	two 488 MWe IGCC units
	Dongguan of Guangdong Province	Unknown	Awaiting approval by government	Unknown	Unknown	200 MW IGCC units
	Lianyungang of Jiangsu Province	Unknown	Awaiting approval by government	Unknown	Unknown	1200 MW IGCC capacity unit

Many of the projects above involve the use of plants that utilize IGCC (Integrated Coal Gasification Combined Cycle) technology, which can only be applied to new power plants. Over one hundred plants equipped with gasification technology already exist in China, though CCS has yet to be implemented (Schell, et al., 2009). The total cost for each project over a five-year period, including the cost of drilling,

compression, etc., will be approximately $50-$100 million (Schell, et al., 2009).

Relevance to Overall Solution

China meets many of the criteria necessary to reduce its CO2 levels. Great CCS potential exists (Qian, et al., 2009), and on a national level the Chinese government has taken other steps toward this goal. In a meeting between President Obama and President Hu Jintao on November 17, 2009 a group of organizations were brought into being. Those organizations were:

- U.S.-China Clean Energy Research Center
- U.S.-China Electric Vehicles Initiative
- U.S.-China Energy Efficiency Action Plan
- U.S.-China Renewable Energy Partnership
- 21st Century Coal focus on cleaner uses of coal
- U.S.-China Shale Gas Resource Initiative (The White House Office of the Press Secretary, 2009b)

In addition to these initiatives, there are ambitious renewable energy and energy efficiency targets announced by President Hu Jintao at a UN climate change summit (Xinhua, 2009). Despite these initiatives, the national Chinese government remains concerned that a strict approach to CO2 emissions reduction through methods such as CCS technology may stifle their economic growth. The economical burden on the national governments can be reduced by a market where part of the cost of CCS technologies was absorbed by the consumers.

Further collaboration with the United States, which is of utmost importance, depends on the state of obstacles in the United States as well. Challenges common to both countries include public skepticism of CCS due to the technology's high cost and relative lack of proven efficacy. CCS also "raises potential environmental concerns—such as leakage, earthquakes, and negative interactions with groundwater" (Schell, et al., 2009).

These negative perceptions will remain until successful large scale implementation of CCS finally occurs. Yet, some will stand to benefit from CCS, especially labor unions who will see more possibilities for coal-dependent jobs such as those in the coal mining and manufacturing sectors (Schell, et al. 2009).

On the other hand, rural leaders may feel threatened because the introduction of new technology may result in the closure of older, inefficient plants and a loss of jobs for local people (Environmental Leader, 2007).

However, due to the nature of the Chinese government, regulations are often difficult to enforce at the local level, making the implementation of policies and individual contribution China's biggest obstacles (NRDC & Wang, 2006).

For instance, local governments may benefit from the existence of large factories that produce large quantities of CO2, which would discourage those governments from actively penalizing offenders. Existing penalties may also be too light to entice compliance, and the individuals may be indifferent to the many environmental consequences.

Thus, China has considered producing the desired results by introducing detailed evaluation systems for government officials that relate to their achievement of national environmental targets and setting energy intensity targets for its top 1000 energy using enterprises (Wang, 2009). Whether these steps are effective remains to be seen.

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SUMMARY OF 2012 FATAL ACCIDENTS AT COAL MINES AND PREVENTATIVE RECOMMENDATIONS

During 2012, nineteen miners were killed in accidents in the coal mining industry.

Four miners were killed in **Powered Haulage** accidents. Three died from **Slip or Fall** accidents. Three miners were killed as a result of **Machinery** accidents. Two miners were fatally injured as a result of **Rib Fall** accidents, and two miners were killed in **Roof Fall** accidents. Three miners were killed in the following accident classifications: **Exploding Vessels Under Pressure**, **Handling Materials**, and **Electrical**. Lastly, two fatalities were classified as **Other**. Both of those miners drowned – one in a river and the other in an impoundment.

Of the nineteen fatalities, five occurred on five consecutive weekends. Two (11%) of the nineteen fatalities involved contractors; five (26%) were supervisory personnel.

Action is needed to prevent additional fatalities. When completed, a detailed investigation report on each fatality is posted on the MSHA website at: http://www.msha.gov/fatals/fab.htm.

Here are brief summaries of these accidents:

Four miners died in Powered Haulage accidents

A 25-year-old water truck driver with 31 weeks of experience was killed at a surface mine. The victim was driving a water truck down a grade in an active work area of the mine when he lost control of the truck. The truck struck a berm on the right side of the roadway, traveled across the roadway, struck an embankment on the left side of the roadway and overturned, facing opposite the original direction of travel. The victim was found ejected from the truck.

A 43-year-old scoop operator received fatal crushing injuries when he was caught between a battery powered scoop and the coal rib while attempting to change the scoop's batteries. The scoop was parked at a battery charging station located four crosscuts from the working section when it was impacted by another scoop which was traveling outby adjacent to the charging station.

A 28-year-old miner was killed moving longwall equipment when he was crushed between the coal rib and a large power center, weighing approximately 30 tons.

A 27-year-old electrician was killed when he was caught between a battery-powered maintenance scoop and the cutting head of a continuous mining machine. The accident occurred on a working section while the electrician was performing maintenance work on the cutting head of the continuous mining machine, which was parked in an entry.

Three miners died in Machinery accidents

A 55-year-old surface foreman with 19 years of mining experience was killed when he was caught between the frame of a highwall transportation dolly and a front-end loader with a forklift attachment.

A 35-year-old-move crew member with 5 years of mining experience received fatal crushing injuries when he was pinned between the conveyor boom of a remote controlled continuous mining machine and the outby rib of the No. 4 Right Crosscut. The continuous mining machine was moving to an adjacent entry in preparation for the oncoming day shift when the accident occurred.

A 30-year-old continuous mining machine operator was killed when he was pinned between the head of the remote controlled continuous mining machine and the coal rib. The victim had 3 years of mining experience, with 20 weeks of experience as a continuous mining machine operator. The victim had mined the left side of an entry and was repositioning the continuous mining machine to mine the right side when the accident occurred.

Three miners died in Slip or Fall of Person accidents

A 61-year-old demolition contractor with approximately 20 years of experience was killed from injuries received while dismantling a conveyor stacker belt from the surface area of an inactive underground coal mine. The victim had completed the final torch cut on an elevated, inclined stacker frame support beam containing the counter-weight, when the structure fell. The structure contacted the walkway (catwalk) where the victim was located. This section of the walkway, approximately 25 feet long, broke loose from the main structure, causing the victim to fall approximately 27 feet.

A 57-year-old mechanic was killed at a coal preparation plant. The victim was standing on a 14-foot fiberglass extension ladder when it became unstable and slid across an I-beam. He fell down an adjacent hoist well opening 39 feet to the concrete floor below. He was attempting to cut and remove a 12-inch hoist beam located above the third floor in the plant.

A 43-year-old shaft worker with 39 weeks of mining experience died from injuries he received when helping pour concrete in a 30-foot diameter shaft that was under construction. The victim and his coworkers were using a hose to direct concrete into forms that lined the shaft wall. The hose was overloaded as concrete came out of the hopper too fast, which caused the hose to surge. This sudden movement of the hose knocked the victim and his coworkers off their feet, resulting in a fracture to the left leg of the victim. The victim was treated at a local hospital and released. He passed away at his residence as a result of complications of this injury.

Two miners died in Rib Fall accidents

A 34-year-old section foreman with 11 years of experience was killed while operating a continuous mining machine in the No. 2 entry. He was struck by a section of rock that fell from the right-hand rib. The rock was approximately 10 feet and 6 inches long, 3 feet and 4 inches high, and 10 inches thick.

A 33-year-old outby foreman with 7 years of experience was killed while installing additional rib/roof support in the No. 5 belt/track entry. The victim was wedging a timber against the mine roof to support the rib when a section of the left hand rib rolled on top of him. The rock was approximately 14 feet long, 4 feet high, and 17 inches thick.

Two miners died in Roof Fall accidents

A 61-year-old general inside laborer with 38 years of mining experience was killed when he was struck by a section of mine roof. The victim was removing a roof bolt from an older area of the mine which was no longer in contact with the mine roof. A section of mine roof fell, striking the victim.

A 32-year-old section foreman with 12 years of experience was killed when a section of unsupported roof approximately 6 ½ feet long, by 6 feet wide, by up to 8 inches thick fell, pinning him to the mine floor. He was operating the continuous mining machine in preparation for the installation of a belt conveyor drive and was positioned approximately 8 feet inby the last row of permanent support.

One miner died in an Exploding Vessels Under Pressure accident

A 44-year-old utility/diesel tram operator with 1 year and 8 months mining experience, died from injuries he received when repairing a damaged water outlet (fire valve manifold). During the repair work, a 1.5 inch bronze ball valve (quarter turn valve) failed catastrophically, propelling the steel manifold into the miner's face/head. This fire valve manifold was originally damaged when an oversized load being transported on the adjacent mine track haulage system contacted the outlet, causing it to separate from the 6" mine water supply. The internal threaded body of the valve separated from the external threaded portion of the valve, causing the catastrophic failure.

One miner died in a Handling Materials accident

A 32-year-old foreman was killed while attempting to install a canopy on a Joy 21 SC Shuttle Car. The canopy was suspended from the mine roof by a cable and chain. The foreman was seated in the operator's compartment of the shuttle car beneath the suspended canopy. The canopy shifted and fell, striking the foreman in the head, causing fatal injuries. The victim had 11 years of mining experience, 2 years and 6 weeks experience at this mine, and 32 weeks of experience as a foreman.

One miner died in an Electrical accident

A 37-year-old electrician, with approximately 3½ years experience (approximately 1½ years as an electrician), was killed when he contacted the energized conductors of a shuttle car trailing cable. He was making the final electrical connections for a replacement cable reel when he was electrocuted.

Two Miners Drowned in accidents classified as "Other"

A 52-year-old deckhand with 4 years of mining experience drowned when measuring the distance from the water surface to the bottom of a set of empty barges that were to be loaded. He had to cross from the dock to the first empty barge. He apparently fell from the barge into the water. The miner was wearing a flotation device, but the flotation device was not designed to keep an unconscious miner's face above water.

A 58-year-old bulldozer operator with 37 years of experience was killed when an upstream slope failure occurred at a coal slurry impoundment. The victim was grading the upstream slope at the time of the accident. The bulldozer was carried into the pool area during the slide and sank with the victim on board.

Best Practices

Deaths continue to occur needlessly in coal mining, but these fatalities can be prevented. They are not inevitable in mining. Effective safety and health management programs save lives. Workplace examinations for hazards can identify and eliminate hazards that kill and injure miners. Effective and appropriate training will help ensure that miners recognize and understand hazards and how to control or eliminate them.

While some of the specific circumstances of these accidents remain under investigation, here are best practices that we can identify at this time to prevent accidents like these in the future:

Powered Haulage Accidents

These types of deaths can be prevented by following well-known and accepted safety practices:

- Train all employees thoroughly on proper work procedures, hazard recognition and avoidance, and proper use of roadway berms.
- Conduct pre-operational checks of equipment to identify defects that may affect the safe operation of equipment before placing it into service.
- Never operate a truck or other mobile equipment without using a seat belt.
- Know the truck's capabilities, operating ranges, load-limits, and maintain the brakes and other safety features properly.
- Construct roadway berms to appropriate strengths and geometries. Ensure all grades and haulage roads are appropriate for the haulage equipment being used.
- Maintain control of equipment at all times, making allowances for the prevailing conditions (low visibility, inclement weather, etc).
- Observe all speed limits and traffic rules.
- Always select the proper gear and downshift well in advance of descending the grade.
- Maintain equipment braking and steering systems in good repair and adjustment. Never rely on engine brakes and transmission retarders as substitutes for keeping brakes properly maintained.
- Monitor work habits routinely and examine work areas to ensure that safe work procedures are followed.
- Do not attempt to exit or jump from a moving vehicle.

- Equipment operators should sound audible warnings when traveling around turns or blind spots, through ventilation curtains, and at any time the operator's visibility is obstructed.
- Always look in the direction of equipment movement and exercise caution in areas where clearance is tight and visibility is limited.
- Install warning signs to remind equipment operators of the hazards present in areas of limited visibility and clearance.
- Assure that the area where equipment is parked is conspicuously marked with reflective material and/or signs if there is a potential for other equipment to strike it.
- Install Proximity Detection Systems on continuous mining machines and haulage equipment to prevent pinning, crushing or striking injuries and fatalities. http://www.msha.gov/Accident%20Prevention/NewTechnologies/ProximityDetection/ProximitydetectionSingleSource.asp
- Ensure that equipment operators establish good communications between themselves and other miners that may be working around or near their equipment.
- STAY OUT of areas where clearance is tight (pinch points) and visibility is limited when haulage equipment is being operated to move large equipment and/or components.
- While moving equipment, ensure that all persons are located safely out of the route of travel, especially with limited visibility.
- Ensure that all large equipment and/or components are secured adequately to prevent unintended motion when being moved.
- Inspect the mine floor properly in areas where large equipment and/or components will be transported to identify any irregularities that may cause unexpected movement of the equipment and/or components being moved, or with the machinery being operated to move the equipment.
- Mark the area where equipment is parked for maintenance with conspicuous reflective material, flashing lights, or other warning signs on both sides of the entry or crosscut to warn mobile equipment operators of a parked machine or the presence of other miners.
- Use approved translucent or transparent ventilation curtains for better visibility.
- Never put extraneous material or supplies on mobile equipment where it can obstruct the visibility of the machine operator.

Slip and Fall
These types of deaths can be prevented by following well-known and accepted safety practices:

- Clear the area of tripping and stumbling hazards before starting any work.
- Secure structures against unexpected movement when performing demolition work.
- Use fall protection when working in an elevated position and securely tie-off where the danger of falling exists.

- Ensure all workers are adequately trained in the use of fall protection and restraint devices.
- Examine fall protection equipment and personal protective equipment before each use. Ensure that defective equipment is replaced.
- Properly position ladders to ensure that footing is secure, that the ladder is resting in a manner that prevents movement, and that the ladder is protected from being struck by moving objects.
- Provide a means to control water, air, concrete, etc., lines when they are pressurized to prevent surges and other unintended movement.

Machinery
These types of deaths can be prevented by following well-known and accepted safety practices:

- Never position yourself between equipment in motion and a stationary object. Always be aware of your location in relation to machine parts that have the ability to move.
- Ensure mobile equipment operators are aware of miners' locations at all times.
- Maintain communication with mobile equipment operators when working in confined areas. Ensure that line of sight, background noise, or other conditions do not interfere with communication.
- Ensure miners are adequately trained for the task they are performing.
- Use a tow bar with adequate length and proper rating when towing heavy equipment.
- Wear brightly-colored clothing or clothing that is distinguishable from surroundings to become more visible.
- Know and follow established communication procedures.
- Maintain control of equipment at all times.
- Conduct a risk analysis before beginning work.
- Ensure that all persons, including the continuous mining machine operator, are positioned outside the machine's turning radius before starting or moving the machine.
- Maintain clear visibility and communications with all personnel in the vicinity of the equipment, and minimize the number of miners working around or near continuous mining machines.
- Frequently review, retrain, and discuss the importance of staying out of any "RED ZONE" area while operating or working near a continuous mining machine. http://www.msha.gov/webcasts/coal2004/REDZONE2.pdf and http://www.msha.gov/Safety_Targets/Continuous%20Miner%20Package/RCCM.asp
- Position the conveyor boom away from the operator or other miners working in the area when tramming or moving the machine.
- Install Proximity Detection Systems on continuous mining machines and mobile equipment to prevent pinning, crushing or striking injuries and fatalities. http://www.msha.gov/Accident%20Prevention/NewTechnologies/ProximityDetection/ProximitydetectionSingleSource.asp

Rib Fall
These types of deaths can be prevented by following well-known and accepted safety practices:

- Conduct thorough pre-shift and on-shift examinations of the roof, face, and ribs. A thorough exam must be conducted before any work or travel is started in an area and thereafter as conditions warrant.
- Support any loose roof or rib material adequately or scale loose material before working or traveling in an area.
- Danger-off areas where hazardous roof or rib conditions are detected until they are made safe.
- Install rib bolts on cycle and in a consistent pattern to provide the best protection from rib falls.
- Ensure that the Approved Roof Control Plan is followed and is suitable for the geologic conditions encountered. If adverse conditions are encountered, the plan must be revised to provide adequate support for control of the roof, face, and ribs.

Roof Falls
These types of deaths can be prevented by following well-known and accepted safety practices:

- Perform thorough pre-shift and onshift examinations.
- Post the end of permanent roof support with a readily visible warning or physical barrier to impede travel beyond permanent roof support. This serves to alert all miners of an approaching potential danger zone.
- Never travel beyond permanent roof support.
- Persons should never expose any portion of their body inby the last row of undisturbed permanent roof supports.
- Make frequent, thorough roof examinations and be keenly aware of changing roof conditions at all times. Give extra attention to the roof after activities occur that could cause roof disturbance.
- Do not mine extended cuts when adverse roof conditions are present. The cut depth should be limited to 20 feet or less. Before performing work in any area of the mine, observe the roof and ribs for hazardous conditions and correct hazards immediately.
- Install additional roof supports prior to removing old supports.
- Perform sound and vibration testing before installing or removing permanent roof supports.
- Only remove roof supports under the direction of a manager or foreman.
- Use roof screen (wire mesh) to control loose roof in long-term travel roads.
- Take extra precautions when working or traveling in older areas of the mine, paying particular attention to deteriorating roof conditions.

Exploding Vessels Under Pressure
These types of deaths can be prevented by following well-known and accepted safety practices:

- When performing work on pressurized water supply piping systems, STOP ALL water flow into the pipe being worked on; BLEED ALL residual pressure from the pipeline, and when possible, OPEN A VALVE at an alternate location to ensure constant pressure relief. LOCK OUT and TAG OUT these valves to ensure safety while repairs are made.
- NEVER REUSE components in a pressurized line that may have been damaged or compromised.
- Ensure that components, such as valves, couplings etc. used in a pressurized water system are compatible with the highest measured or expected STATIC pressure in the system.
- Implement a Standard Operating Procedure for the design, installation, testing, and maintenance of pressurized fluid systems that is consistent with National Fire Protection Association standards.
- Install slow closing indicating valves. When opening a valve to put water flow into a pressurized system, do it slowly and minimize exposure to pressurized components. See slow closing indicating valves on MSHA's Belt Fire Suppression Simulator at the National Mine Health and Safety Academy. http://www.msha.gov/alerts/SafetyFlyers/ScoreaTDMineFire2009.pdf
- Inspect, examine, and evaluate all materials used during installation, replacement, or repair of pressurized water systems to ensure suitability.
- Properly train all miners on the hazards associated with working on or around pressurized fluid piping systems.
- Maintain safe and adequate clearance to prevent mobile equipment and machinery from contacting pressurized lines, valves, etc.
- Install barriers to prevent equipment from damaging piping and valves.
- Ensure adequate supervision when moving oversized equipment in haulage entries

Handling Materials

These types of deaths can be prevented by following well-known and accepted safety practices:

- Consider all hazards and implement formal procedures that address possible hazards before performing a materials handling job.
- Devise safe methods to complete tasks involving large objects, massive weights, or the release of stored energy.
- Always de-energize equipment and block against motion.
- Never use permanent roof support as a mechanism for lifting heavy objects. Install lifting points that are designed and manufactured to support the intended load.
- Use only devices designed and rated for the suspension of heavy loads and do not exceed the rated capacity of hoisting, towing, or rigging tools.
- Use a positive means to prevent objects/materials from falling, or moving when working with or near extremely heavy objects/materials suspended overhead.
- Never work in the fall path of objects/materials or massive weights that can become off-balance while suspended.

- Train personnel to recognize hazardous work procedures, including working in pinch points where inadvertent movement could cause injury.

Electrical
These types of deaths can be prevented by following well-known and accepted safety practices:

- Develop a hazard analysis work plan before conducting repairs.
- Always lock and tag-out electrical equipment prior to electrical work.
- Perform your own lock and tag-out procedure. Never rely on others to de-energize or disconnect a circuit for you.
- Use proper Personal Protective Equipment (PPE) for all electrical work.
- Ensure that all electrical circuits and circuit breakers are identified properly before troubleshooting or performing electrical work.
- Use properly rated non-contact voltage testers to ensure that circuits are de-energized.
- Eliminate personal distractions when working on equipment.
- For more information related to Lock and Tag safety, click on the following link on the MSHA Web site: Lock and Tag Safety

Drowning
These types of deaths can be prevented by following well-known and accepted safety practices:

- Use electronic devices to determine the draft in barges.
- Install and use lifeline tie-off systems to provide fall protection over water.
- Use and maintain sufficient area lighting and personal lighting. Set up a look out and communications protocol. Do not work alone.
- Ensure safe access is provided where persons are required to work or travel. Watch footing and stay clear of ropes, cables, and other obstacles. Use de-icing material to clear ice from walkways. Maintain three points of contact where practicable.
- Wear properly fitted personal flotation devices that are designed to keep an unconscious miner's face above water.
- Utilize wearable electronic emergency warning systems to immediately notify others of a fall into water. These devices can be equipped with water activated strobe lights and global positioning system tracking.
- Provide hazard training to all personnel working on or near an impoundment for recognition of hazards associated with the impoundment and pushout work, such as surface cracks or bubbling in water/slurry.
- Review safety precautions for upstream construction with equipment operators, along with material handling safety policies and designated storage areas for safety equipment.
- Provide oversight by knowledgeable personnel at the work site. Assure that a person is present who is familiar with the mechanics of upstream construction and can recognize and have unsafe work practices and conditions corrected immediately.

- Remove all personnel to a safe location when unsafe impoundment conditions are present.
- Prior to initiating push-outs, expose the slurry delta by pumping excess surface water down to the maximum extent possible, and for as long as possible.
- Use two-way radios or similar devices on all equipment during impoundment related construction, so that potential hazards can be communicated quickly to equipment operators and personnel.
- Maintain a work skiff with oars and life jackets near the pushout area.

Violations of the priority standards identified as **Rules to Live By** continue to play key roles in mine fatalities. While not all of the fatality investigations have been completed, not all of the violations have been identified, and not all of the associated citations and orders have been issued, Rules to Live By standards have been and continue to be associated with several fatalities. MSHA's inspectors will be especially mindful of these issues while performing inspections. They will be talking to miners and mine supervisors in mines throughout the country to discuss these fatalities, and the ways to prevent them.

Contractors

Two contractors were killed in the coal mining sector in 2012. Contractors and mine operators should ensure that contractor employees are properly trained and follow the mine's safety policies and procedures. Contractors and mine operators should coordinate operations at the mine to ensure that safety and health management programs are in place and are effective, all workplace examinations are performed, and safe work procedures are followed.

Supervisors

In 2012, five supervisors were killed in accidents in coal mines, representing 26% of the fatalities in the coal mining sector. This percentage is much higher than in previous years. Mine operators must ensure that supervisors have adequate and effective training in the tasks they perform.

The importance and value of effective **safety and health management programs** cannot be overstated. A thorough, systematic review of all tasks and equipment to identify hazards is the foundation of a well-designed safety and health management program. As necessary, modify equipment, processes, work procedures and management systems to eliminate or control identified hazards. Operators and contractors should create effective safety and health management programs, ensure that they are implemented, and periodically review, evaluate, and update them.

If an accident or "near miss" occurs, determine the root causes and take necessary actions to prevent a recurrence. If changes to equipment, materials, or work processes introduce new risks into the mine environment, they must be addressed immediately.

Conducting **workplace examinations** before and during each shift can prevent deaths by finding and fixing hazards. All required workplace examinations must be performed, and identified hazards eliminated to protect miners.

From the Assistant Secretary's Desk
2012 Fatality Analysis

Our top priority is to reduce fatalities, injuries and illnesses in our nation's mines. As we reported last year, mining fatality and injury rates[1] were the lowest ever in history in 2011. Preliminary data show that we are continuing to move mine safety in the right direction with the fatality rates in 2012 for all mining reaching an all-time low for the second straight year. This means if the preliminary data for mining deaths for 2012 hold more miners than ever before are going home to their family and friends safe and healthy at the end of their shifts. We know it has taken the efforts of all of us in the mining industry to reach these new milestones. We also know that while mining deaths and injuries have reached historic lows, more action is needed by all to prevent mining injuries, illnesses and deaths.

Preliminary data for 2012 show that 36 miners died in work-related accidents at the nation's mines in 2012 - the second-lowest number of fatalities on record, one more than the 2009 historic low of 35. From January 1 to December 31, 2012, 19 coal miners and 17 metal/nonmetal miners died in work-related accidents.

Seven miners died in West Virginia, five in Kentucky, three each in New York and Alabama, two each in Montana and Florida, and one each in Arizona, California, Colorado, Georgia, Illinois, Indiana, Maryland, North Carolina, Nebraska, Nevada, Ohio, Oklahoma, Tennessee and Virginia.

The leading cause of fatalities in the U.S. mining industry during 2012 was powered haulage, which claimed the lives of 10 miners. Other leading causes included machinery accidents, which killed six, slip or fall of person accidents, which also claimed six lives, and rib falls, which killed three miners.

Still, one death is too many and several issues of concern stand out among the deaths that occurred in 2012. Most notable was the number of supervisor deaths. Supervisors accounted for 9 fatalities out of a total of 36, or 25% of the total – a much higher percentage than in previous years. In September, MSHA issued an alert on the importance of supervisor training, noting the alarming number of fatalities in coal and metal in which mine owners or supervisors were killed while performing tasks for which they were not appropriately trained.

Pinning, crushing and striking accidents in underground coal mines continue to cause significant numbers of injuries and fatalities. From 1984 through 2012, 73 deaths occurred from these types of accidents – including 33 which were associated with continuous mining machines and which could have been prevented by a proximity detection system. In addition, MSHA estimates that with underground mining machines. In 2012, MSHA believes three deaths at underground coal mines could have been prevented by proximity detection systems. Some in the mining community have already invested in this technology. Alliance Resource Partners is installing proximity detection equipment on continuous mining machines. Consol Energy and Peabody

[1] In 2011, fatality and injury rates were the lowest ever recorded. The fatal injury rate for mining as a whole was .0114 per 200,000 hours worked, and the all-injury rate was 2.73 per 200,000 hours worked, down from .0234 and 2.81, respectively, in 2010. In the metal/nonmetal mining sector, the fatal injury rate was .0084 per 200,000 hours worked, and the all-injury rate was 2.28 per 200,000 hours worked, down from .0129 and 2.37, respectively, in 2010. In the coal mining sector, the fatal injury rate was .0156 per 200,000 hours worked, and the all-injury rate was 3.38 per 200,000 hours worked, down from .0384 and 3.43, respectively, in 2010.

Energy are working on the application of proximity detection protections to section mining equipment, and we look forward to hearing from other companies who may be following suit.

Training for miners at all levels of experience continues to be an issue. In 2012, 8 deaths involved miners with one year or less experience at the mine and 13 of the deaths involved miners with one year or less at the job or task. Three of the miners killed at metal and nonmetal mines had less than one year of experience at the mine. Five miners had less than one year of experience at the job or task they were performing. This is also an issue in coal. At coal mines, 5 miners who died had one year or less experience at the mine. Eight miners who were killed had one year or less experience at the job or task they were performing. Miners need effective and appropriate task training before they perform a new task.

MSHA has placed an analysis of the mining fatalities during 2012 on its website at http://www.msha.gov/fatals/summaries/summaries.asp along with best practices to help mining operations, miners and contractors avoid fatalities, and for trainers to include in miner training. Much more information on preventing mine injuries, illnesses and deaths is available on the MSHA web site for use by the mining community.

Mining deaths are preventable. The year that the Federal Mine Safety and Health Act of 1977 passed, 273 miners died, and since that time, fatality numbers have steadily declined. In order to prevent mine deaths, operators must have in place effective safety and health management programs that are constantly evaluated, find-and-fix programs to identify and eliminate mine hazards, and training for all mining personnel.

MSHA has undertaken a number of measures to prevent mining deaths, injuries and illnesses: increased surveillance and strategic enforcement through impact inspections at mines with troubling compliance histories; enhanced pattern of violations actions; special initiatives such as "Rules to Live By," which focuses attention on the most common causes of mining deaths; and outreach efforts such as "Safety Pro in a Box," which provides guidance to the metal/nonmetal mining industry on best practices and compliance responsibilities.

MSHA also has issued two new final regulations that will contribute to reduced injuries and deaths in mining. The final rule for Examinations of Work Areas in Underground Coal Mines for Violations of Mandatory Health or Safety Standards became effective on August 6, 2012. The rule enhances miners' health and safety by requiring coal mine operators to identify and correct hazardous conditions and violations of nine health and safety standards that pose the greatest risk to miners, including the kinds of conditions that led to the explosion at the Upper Big Branch Mine. The recent final rule on Pattern of Violations will go into effect on March 25, 2013 and will simplify the existing POV criteria, improve consistency in applying the POV criteria, and more effectively achieve the statutory intent. It will also encourage chronic violators to comply with the Mine Act and MSHA's safety and health standards.

It takes all of us in the mining community, working together, to improve mining health and safety. Actions by many in the mining industry have contributed to the overall mining safety improvements.

Miners deserve a safe and healthful workplace, and assurances they can return home safe and healthy each day.

To see data on mining fatalities by state in 2012 and as far back as 2001, visit http://www.msha.gov/stats/charts/Allstates.pdf.

PLEASE TAKE A MOMENT OF SILENCE TO REMEMBER EACH OF OUR MINERS LOST IN 2012

STAY TUNED FOR OUR MEMORIAL TO HONOR EACH OF THEIR LIVES.

1. Joe E Saunders, 44, January 18th 2012, CONSOL Energy, Inc.
2. Kevin Meyers, 52, Feb 26th 2012, SCH Terminal Co. Inc.
3. James A Bailey, 32, March 3rd 2012, Parton Bros. Contracting Inc.
4. Jeremy Sigler, 34, March 10th 2012, Alpha Natural Resources Inc.
5. Walter R McAfee, 55, March 17th 2012, Ohio American Energy Inc.
6. Harold E Ennis, 37, March 23rd 2012, Drummond Company Inc.
7. Delmer Miller, 61, April 25th 2012, James River Coal Company
8. Clyde W Dolin, 57, May 17th 2012, Alpha Natural Resources, Inc.
9. James A Palmer, 43, May 24th 2012, Alliance Resource Partners, LP
10. Farley Sargent, 33, June 25th 2012, James River Coal Company
11. Jason A Kawcak, 25, July 14th 2012, Western Fuels Association Inc.
12. Johnny M Bryant II, 35, July 27th 2012, James O Bunn Coal River Mining LLC
13. Greg A Byers, 43, July 31st 2012, International Coal Group Inc (ICG)
14. Julius Walker III, 28, September 11th 2012, Drummond Company Inc.
15. William E Mock, 61, September 13th 2012, CONSOL Energy Inc.
16. Jeremy Perkins, 32, September 26th 2012, Quintana Energy Partners LP
17. Chad W Myers, 30, November 17th 2012, Peabody Energy
18. Steven A O'Dell, 27, November 30th 2012, Alpha Natural Resources, Inc.
19. Markel J Koon, 58, November 30th 2012, CONSOL Energy Inc.

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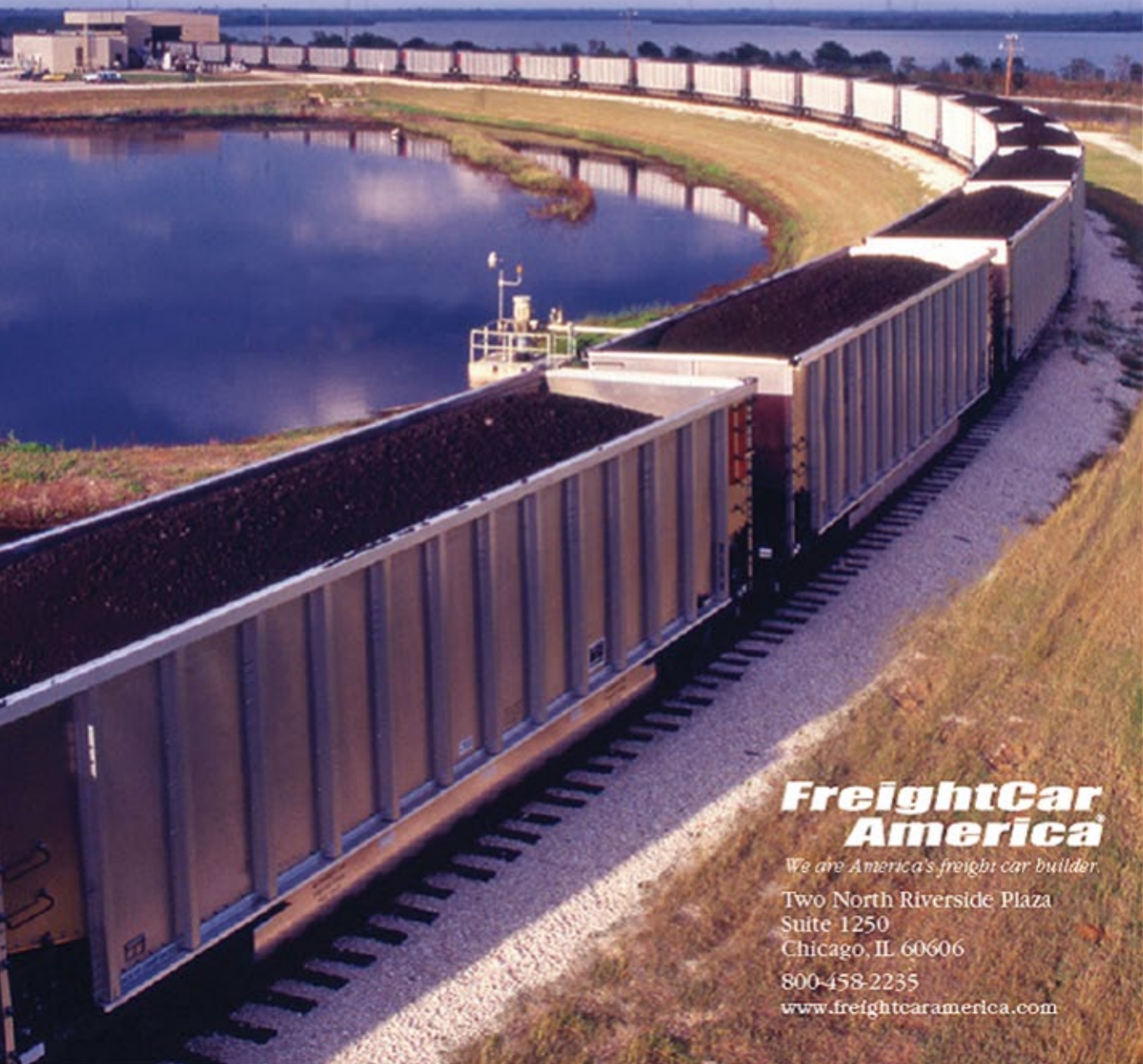

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PRESS RELEASES

Global Outlook is Positive for U.S. Coal and Minerals Mining, Says NMA CEO / MONDAY, 28 Jan. 2013 18:01

The following points were made today by National Mining Association (NMA) President & CEO Hal Quinn at a press briefing held at NMA's Washington, D.C., headquarters:

"The outlook for U.S. coal and minerals mining in 2013 is positive due to clear improvements in key sectors of the U.S. economy and the global demand for mined products, particularly in developing economies. While we see continued slow growth in the overall U.S. GDP and another slight contraction in Europe, projected increases in domestic new-home construction and automobile sales forecast to reach 15.3 million in 2013 are buoying demand for copper, palladium, molybdenum and other metals that are vital to these sectors. U.S. copper production, alone, is expected to be up by more than 10 percent in 2013, according to mineral commodity specialists at the U.S. Geological Survey (USGS).

"Iron ore production will benefit from infrastructure projects and stimulus spending in China, the world's biggest buyer and the purchaser of 40 percent of worldwide production of all base metals.

"Gold demand is expected to remain relatively strong, according to GFMS and USGS analyses, driven by continued financial uncertainty, central bank purchases of gold to diversify reserve assets and the continuation of current monetary policies here and abroad. At this point, the USGS expects a slight uptick in 2013 U.S. gold production. Silver tends to run in tandem with gold, based on investor demand, but has a variety of industrial applications that will be strong in China, in particular.

"Coal is on track to become the world's primary energy source—surpassing oil—by 2015, according to Wood McKenzie, two years ahead of the International Energy Agency's current estimate. Here at home, coal's contribution to meeting electricity demand will increase by nearly 45 million tons over 2012 levels, and total domestic consumption will rise by 50 million tons due to slight improvements in the U.S. economy; cooler weather; and natural gas prices that are expected to increase by 22 percent, according to the Energy Information Administration (EIA).

"Demand for coal in Europe has increased—particularly in Germany and Britain—in response to higher gas prices. Demand for coal throughout Asia for electricity and steel production contributes to a robust U.S. coal export forecast of 111 million tons in 2013.

"With these improved conditions for coal production and demand in 2013, NMA expects total U.S. coal production to come in at 1.016 billion tons in 2013—slightly more optimistic than EIA's January short-term forecast.

"Longer-term, NMA expects U.S. coal to benefit from recent and planned construction of higher efficiency coal-based power plants with higher output rates and lower emissions. The remaining coal fleet will, on average, be larger, more efficient and run at higher capacity—recovering at least 100 million tons of U.S. coal production lost to retirements of older plants.

"We continue to see improvements in U.S. mine safety and health. We finished 2012 with the second safest year on record for mine fatalities. Nonetheless, we are well short of our goal of eliminating fatalities and reducing our injury rate by 50 percent by 2015. We believe NMA's CORESafety® safety and health management system gives our operations and the people who work there the tools to reach that goal.

«Public policy challenges continue to limit the potential of U.S. mining to provide reliable materials and affordable energy vital to our economy and way of life. Inefficient and unpredictable permitting processes thwart investments that provide high-paying jobs and added value throughout the chain of production. Regulations that needlessly limit our energy options by halting the construction in the U.S. of new advanced coal plants that can serve as the platforms for cleaner coal technologies worldwide are a failure of ambition and policy. If the U.S. wants to compete with the world›s fastest growing economies and remain in the forefront of technological innovations, we must address these critical shortcomings.»

By 2017 Coal Projected to Rival Oil as World's Top Energy Source / NEW YORK, NY--(Marketwire - Jan 14, 2013)

The Paragon Report Provides Stock Research on CONSOL Energy Inc. and Natural Resource Partners LP

NEW YORK, NY--(Marketwire - Jan 14, 2013) - After a dismal 2012, the Coal Industry looks to be on the upswing as a recent report from the International Energy Agency predicts global coal demand to increase at an average of 2.6 percent a year over the next five years. The Paragon Report examines investing opportunities in the Coal Industry and provides equity research on CONSOL Energy Inc. (NYSE: CNX) and Natural Resource Partners LP (NYSE: NRP).

Access to the full company reports can be found at: www.ParagonReport.com/CNX www.ParagonReport.com/NRP

According to the IEA's Medium-Term Coal Market Report by 2017 coal is expected rival oil as the as the world's top energy source. Coal's global growth is largely dependent on Chinese demand, as China has surpassed Japan as the world's largest importer of coal.

"This report sees that trend continuing. In fact, the world will burn around 1.2 billion more tons of coal per year by 2017 compared to today -- equivalent to the current coal consumption of Russia and the United States combined. Coal's share of the global energy mix continues to grow each year, and if no changes are made to current policies, coal will catch oil within a decade," said IEA executive director Maria van der Hoeven.

ASGCO Expands Tru-Trainer Conveyor Belt Tracking Idler Range!

The Tru-Trainer series of conveyor belt tracking idlers are a patented design that offers the most reliable and re-active belt tracking idlers available today. Its stainless steel internal pivot that is perpendicular to the plane of the belt and its rubber covered shell and tapered ends helps actuate the trainer immediately as the belt moves off center. It is always reacting to keep the belt centered. It does not wait, like conventional trainers, for the conveyor belt to walk over to

90-degree sensor rollers and then have the belt react. The separate tapered rolls can be individually replaced as wear occurs. High abrasion polyurethane lagged rollers are also available.

The new V-Return Tru-Trainer was developed to accommodate the excessive forces encountered with V-Return idler conveyors, systems and structures. The V-Return idler structure is often used for wide conveyor belts, generally over 48" and for long conveyor systems to help centralize the center of the conveyor belt on the system.

The above photo of the 60" wide V-Return Tru-Trainer was taken at a large mining operation that is handling 4" minus copper ore at 850 FPM. Prior to the V-Return Tru-Trainer the customer experienced many belt tracking issues that were causing severe conveyor belt edge damage and the conveyor belt was cutting into the idler brackets causing severe safety issues. Since the installation of the V-Return Tru-Trainers, the tracking problems have all but been eliminated.

Contact ASGCO today for more information on **Tru-Trainer** *series of belt tracking idlers or log on to* ***www.asgco.com*** *to familiarize yourself with this and many more ASGCO products and services.*

COAL'S SHARE OF WORLD ENERGY MIX HITS RECORD

By RP Siegel

With the New Year and newly minted, well-intentioned resolutions upon us, I thought it might be a good time to post some compass readings with respect to the world energy picture. My year-end summary emphasized the growing importance of natural gas as an energy source, and the piece that came after that described America's soon-to-be emergence as the leading producer of oil and gas.

A new announcement this week puts these discussions, as well as our recent gains in sustainable energy into perspective, dramatically revealing how much further we still have to go when we look at the global picture. The Worldwatch Institute report points out that while oil still represents the largest energy source, both coal and natural gas have seen significant increases in production and consumption. The report, which tracks usage through the end of 2011, says that coal consumption increased by 5.4 percent, while natural gas usage rose 2.2 percent.

This brings coal's share of the energy mix up to 28 percent, the highest percentage on record since the IEA began tracking this data in 1971 (it was likely higher than that at some point before that year). The increase comes despite rising global awareness of carbon's role in causing climate change, and despite coal being the largest carbon-emitting energy source of all.

Seventy percent of global demand came from countries outside of the OECD, mainly India and China. In fact, China alone accounted for nearly 50 percent of all demand. The U.S. was the second largest user, though it saw a decrease in consumption of roughly 5 percent which was offset by shale gas and wind. In 2008, coal accounted for 50 percent of all U.S. electric generation. That number is expected to drop to 30 percent by 2020. Despite the decline, the U.S. still accounts for 45 percent of all OECD consumption.

India had the second highest coal consumption growth rate and is expected to overtake the U.S. as number two by 2025, becoming the largest net importer of coal, much of which will come from the U.S., which has the largest reserves of any country. China, which is third, after Russia, has substantial reserves, which is one of the reasons they are burning it so freely to power their rapidly growing economy. During the decade from 2001-11, China accounted for 80 percent of the increase in global demand.

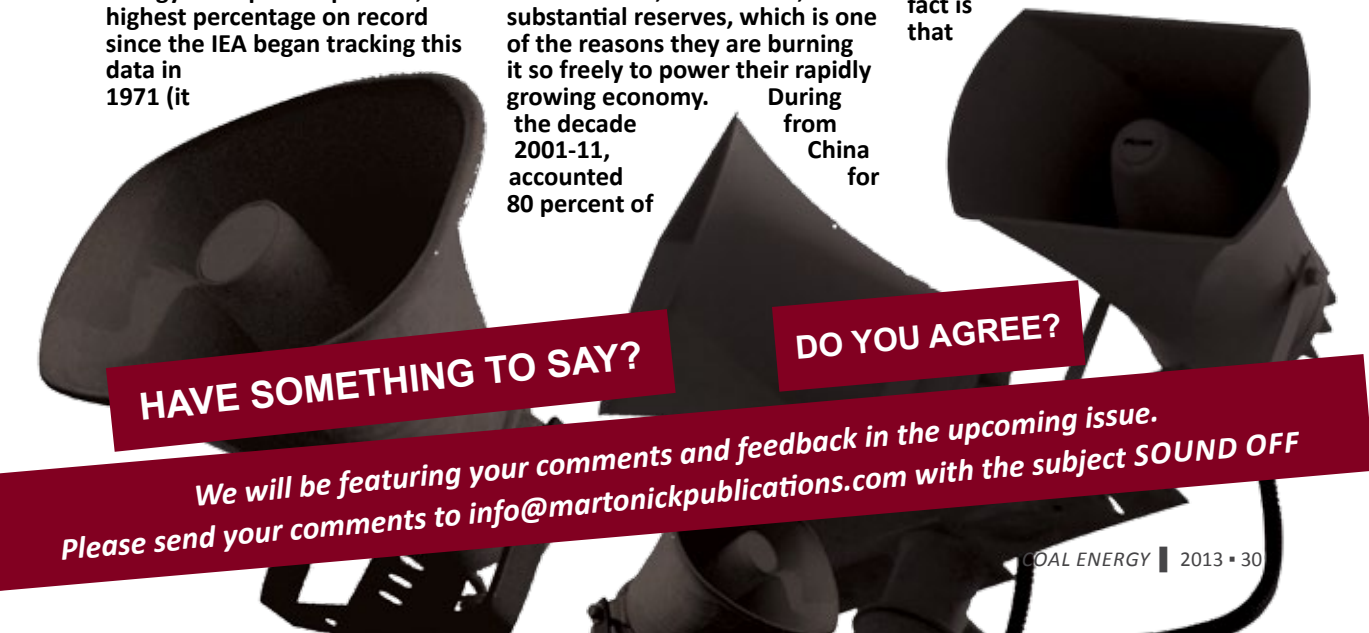
So while U.S. coal consumption continues to drop, production remains steady, with an export boom underway. Exports have doubled in just the past three years.

So, in essence, all the coal that we have stopped burning domestically, is being burned in China and India instead, plus a whole lot more.

That might be good for coal producers (though mining jobs continue to fall primarily due to automation), but it is not good for anyone concerned about curbing carbon emissions in an effort to rein in a runaway climate.

So, what is China doing about this? Do they merely have their heads in the sand? Are they blithely ignoring the problem while focusing exclusively on economic growth?

While it is easy for us to point fingers, we should keep in mind that people who live in glass houses, otherwise known as greenhouses, should not throw stones. The fact is that



HAVE SOMETHING TO SAY?

DO YOU AGREE?

We will be featuring your comments and feedback in the upcoming issue. Please send your comments to info@martonickpublications.com with the subject SOUND OFF

China is doing quite a bit to curb emissions. True, they are producing lots of carbon, but they are using it far more effectively than we ever did. Over the past twenty years, China has reduced the amount of carbon emitted per unit of GDP faster than any other nation. Their 12th Five Year Plan, which covers 2011-15, contains a number of substantial carbon reduction initiatives. Among these are:

Increase the proportion of non-fossil fuels in energy consumption to 11.4 percent by 2015

Reduce energy per unit of gross domestic product (GDP) by 16 percent by 2015

Reduce carbon dioxide emissions per unit of GDP by 17 percent by 2015

Additionally, as part of UN climate negotiations, China pledged to increase forest coverage by 40 million hectares and forest stock volume by 1.3 billion cubic meters compared to 2005, by 2020.

China also plans to establish carbon trading markets in Beijing, Shanghai and Guangdong, which may go national by 2015.

They also claim the world's largest installed base of renewable electricity generation. China's investment in clean energy surged this past year, growing 92 percent in 2Q to $18.3 billion, or a little over 30 percent of the global total. China has also surpassed the U.S. in smart grid investment and in wind power. Chinese wind generation capacity is projected to roughly double by 2015.

Of course, both the U.S. and China can do a lot more to speed the transition. Neither country has demonstrated anything close to Germany's commitment to renewables, though, of course, circumstances vary.

China's rapid growth follows the contours of the economic landscape, in which energy plays a major role. The passage of a carbon tax in the U.S., therefore, could possibly be the largest single step to drive progress on this critically urgent issue.What else can be done? Peter Ward, a professor of Biology and Earth Science at the University of Washington, and an expert on extinctions, says that we should stop exporting coal to China.

Whether we could muster the political will in Washington to take such a principled stand in the face of protests over government intervention in business and job losses, is questionable at best. But, as Ward points out, these seemingly drastic choices will likely pale in comparison to the choices that will probably be foisted upon our descendants.

Please send your comments to info@martonickpublications.com with the subject SOUND OFF

World News: SOUTH AFRICA

South Africa is a significant participant in global coal markets. However, it is not the biggest: China, the USA and India are much larger producers and consumers of coal; Australia, Indonesia, Russia and Colombia are larger exporters. Yet, South Africa's coal industry is noteworthy in a number of respects: it is a relatively low cost producer (along with Indonesia and Colombia), has the world's largest coal export terminal, and is positioned conveniently between Atlantic and Pacific coal markets. It is a potential swing producer, able to export competitively to either Europe or the East.

South Africa has substantial coal reserves and there is scope for expanding its coal exports, thereby generating much needed export earnings and reducing the country's negative trade balance and current account deficit. However, increased coal exports face serious barriers and obstacles, including inadequate rail capacity to the coast. There is a lack of planning and investment coordination between privately owned mines, state-owned rail infrastructure and port capacity.

South Africa is also a major consumer of coal, mainly for electricity production. It also operates the world's only commercial coal synfuel (CTL) plants. It is amongst the twenty most carbon-intensive economies in the world but does not yet face any binding international

treaty obligations to reduce its greenhouse gas emissions. Nevertheless, global warming and other environmental concerns are beginning to constrain further local coal-based investment decisions. In the Copenhagen Accord, South Africa made a voluntary commitment to reduce its greenhouse gas emissions below a business-as-usual scenario.

South Africa's economically recoverable coal reserves are estimated at between 15 and 55 billion tonnes. 96% of reserves are bituminous coal; metallurgical coal accounts for approximately 2% and anthracite another 2%.2 Production is mainly steam coal of bituminous quality. The majority of South Africa's reserves and mines are in the Central Basin which includes the Witbank, Highveld and Ermelo coalfields. Coal production in the Central Basin is likely to peak in the next decade. The Waterberg coalfield is the focus of recent exploration efforts and could become a major coal mining center in the future, subject to infrastructure and water constraints. Production in this area will double in the next 5 years. Other coalfields in the Limpopo Province are also being explored, with a focus on coking coal.

The coal sector in South Africa offers both challenges and opportunities. It remains to be seen whether South Africa will develop integrated policy and regulatory frameworks, and more purposeful investment strategies and programmes, that will set the country on a sustainable development path while maximising potential export benefits.

INDUSTRY EVENTS

AMERICAN COAL COUNCIL

JUNE 4-6, 2013

Coal Leadership Advancement Seminar Series (CLASS),

St. Louis

RMEL

MAY 19, 2013

2013 Spring Management, Engineering & Operations Conference,

Veil, CO

JUNE 13, 2013

Plant Management Conference and Plant Tour,

Lakewood, CO

JUNE 27, 2013

Transmission Operations and Maintenance Conference,

Littleton, CO

JULY 9, 2013

2013 RMEL Golf Tournament,

Westminster, CO

AUGUST 30, 2013

Safety Roundtable,

Fort Collins, CO

SEPTEMBER 8, 2013

2013 Fall Executive Leadership and Management Convention,

Marana, AZ

NATIONAL COAL TRANSPORTATION ASSOCIATION

APRIL 14-17, 2013

Spring General Conference, Westin La Paloma Resort, Tucson, Arizona

MAY 23, 2013

Eastern Logistics and Planning Committee Meeting Embassy Suites Airport, Pittsburgh, Pennsylvania

JUNE 10-12, 2013

Operations and Maintenance Conference Intercontinental at the Plaza, Kansas City, Missouri

JULY 24, 2013

Western Logistics and Planning Committee Meeting Union Pacific Railroad Offices, Omaha, Nebraska

SEPTEMBER 16-18, 2013

Thirty-Ninth Annual Business Meeting and General Conference Brown Palace Hotel, Denver, Colorado

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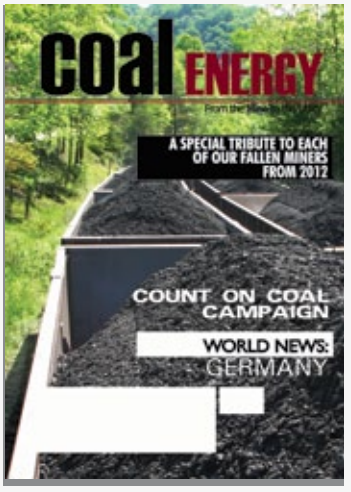

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World News: Germany

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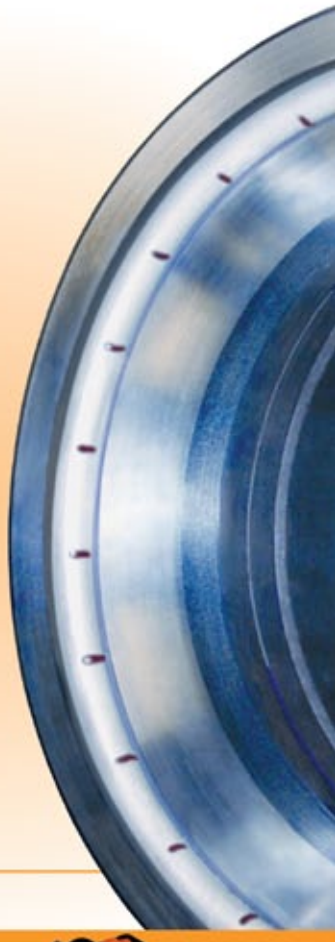

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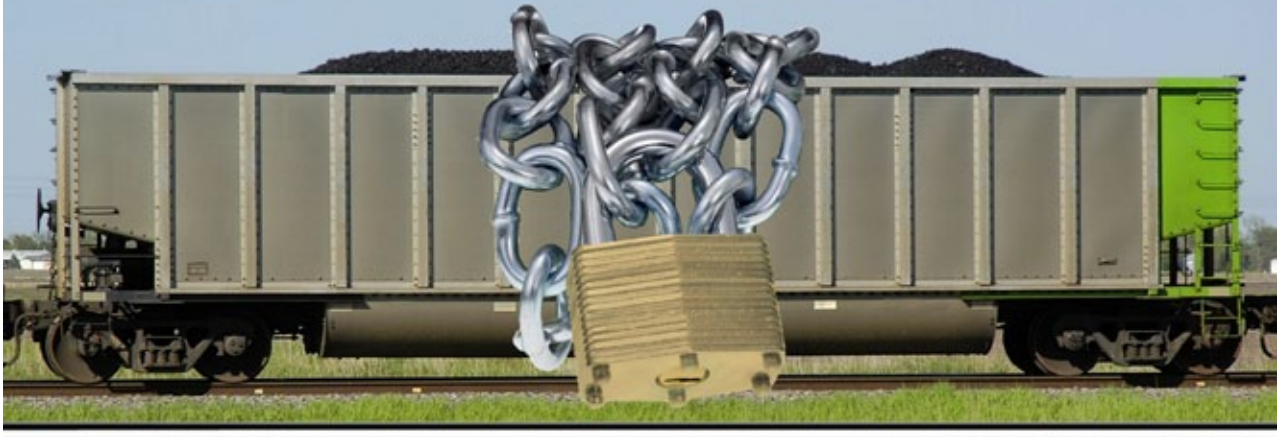

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