METALLIC MINING RULES
By Steve Pinette

The Maine DEP and the Board of Environmental Protection (BEP) are approaching the final stages of developing mining rules that will be presented to the 125th Maine Legislature for review and approval. These draft rules will replace the existing Metallic Mining Rules that have been in force for approximately 20 years. Spurred by good market conditions for gold and copper, renewed interest in developing the Bald Mountain massive sulfide metallic mineral deposit near Portage, Maine has provided the impetus for legislation and revised regulations to make it more “feasible” to mine in the State. How do the new proposed Metallic Mining Rules relate to quarries permitted for mining construction aggregate—or do they?

The purpose of this short article is to provide background and context for the draft Metallic Mining Rules and to address notions that these rules will directly affect quarries that are currently permitted under Chapter 378 of the DEP rules. Some confusion or misconception may exist because both types of mining generally extract “hard” rock composed of metamorphic and igneous rock. In contrast, “soft” rocks include shale, siltstone and limestone that are physically softer, therefore, less resistant to physical degradation when used for highway aggregates. Although many quarries in Maine are hard-rock quarries (that is, they mine igneous and metamorphic rocks for use as aggregate) this is not the hard-rock mining for metallic minerals that the draft 2013 Metallic Mining Rules seek to address. The environmental concerns related to hard-rock quarrying for aggregate are relatively minor compared to hard-rock metallic mining.

The critical environmental problem with metallic sulfide deposits arises because the metal-sulfide minerals are unstable when exposed to atmospheric oxygen and water. Exposed to weathering forces, metal-sulfide minerals dissolve to release metal ions and sulfuric acid, which have contaminated groundwater, streams and rivers in many of the world’s historical mining districts. 21st Century mining technology and strategies are successfully dealing with these challenges in modern mines.

So—with several massive sulfide metallic deposits identified in the State and good potential for discovering more similar deposits, why has mining activity been absent in Maine during the past two decades since the 1991 mining rules were adopted? Mining companies generally view the 20-year old mining rules as overly restrictive and unworkable for making long-term investments to develop mining projects in Maine—the regulations have been referred to as a de facto ban on mining. Two of the major mining impediments contained in the old rules were (1) the requirement that the entire mining permit must be renewed every five years, and (2) that mining permits are required from two separate State agencies (DEP and LURC [now LUPC]) for projects in the Unorganized Territories. Mining proponents contend (Continued on page 3)

MAA SPONSORS 2014 SPRING THAW

On March 11, 2014 Maine Aggregate Association will host a Spring Thaw Safety Seminar at the Italian Heritage Center in Portland Maine, 8:00AM to 4:00PM. This event is for owners, operators, supervisors and plant operators of mining operations. We expect 150 to 200 attendees from the New England mining community.

MSHA representatives from the Northeast District Office and the Manchester Field Office will be on site to discuss last year’s fatalities, injury statistics and other topics. Industry representatives will address issues related to mine safety that may assist in completing the required 8-hour annual refresher training. Hearing conservation programs and safety issues related to blasting, portable crushers & screens, and loaders are a few of the topics to be discussed. There will also be information on required MSHA paperwork and available compliance assistance from MSHA’s Small Mine Consultation Program.

Thompson Rolac Equipment is our primary sponsor this year with Northern New England Concrete Promotion Association, ABC Maine Chapter and AGC Maine as our association sponsors.

Sponsorship opportunities are available to promote business. We will be marketing this event to contractors and mine operators throughout New England. Over the next several months we will send information about this event. Display tables are available at a cost of $500. If you are interested in cosponsoring this or vendor display opportunities, contact:

Chip Laite
207-817-7575 or claite@sargent-corp.com

Chip Laite is a MAA Director and Past President and serves as President of the MAA
Joseph A. Holmes Safety Council
ANNUAL MAA MEMBERSHIP

The Maine Aggregate Association Annual Membership Meeting & Banquet is scheduled for April 9, 2014 at the Italian Heritage Center in Portland. All MAA members are invited to attend.

Governor Paul R. LePage will be this year’s special guest speaker. According to MAA President Tom Shaw of Gorham Sand & Gravel, this year’s event will include special guest Dave Turin of the Discovery Channel’s Gold Rush TV show. “Members will continue to use the Annual Membership Meeting as a chance to review issues of major concern to the industry, elect new officers and directors, renew old friendships and have a fun night out right before the busy construction season gets into full swing, says Shaw. The program will also include a summary of inspections and compliance by Maine DEP Mining Inspectors and an update on pending legislation of interest to the Aggregate Industry by MAA Lobbyist Ted Johnston. Registration details are included as an insert in this newsletter, or for more information visit:

www.maineaggregate.org, or call 685-4583.

MAA GOLF TOURNAMENT SCHEDULED

MAA President Tom Shaw announced that the MAA Annual Marlee Johnston Memorial Golf Tournament will be held at Belgrade Lakes Golf Club on June 23, 2014.

MAA has sponsored this event since its inception to honor the memory of the daughter of long-time MAA member and lobbyist Ted Johnston. Money raised from the Golf Tournament goes to a scholarship in Marlee’s name for local area students to attend Kents Hill School, a private college preparatory school attended by Johnston’s son and intended school of Marlee.

Almost $200 thousand has been raised since the inception of the Tournament, and early scholarship recipients have since graduated and are enrolled in college.

“We are extremely grateful and humbled by the generosity and support from MAA members and our friends,” said Ted Johnston, Marlee’s father. “Not only do we get to play at one of Maine’s premier golf courses, we continue to provide scholarships for Maine kids wanting to attend Kents Hill School,” Johnston added.
GOLD RUSH in MAINE

In addition to a keynote address by Governor Paul R. LePage, Dave Turin from the Discovery Channel’s Gold Rush TV show will cap off the evening program at the Maine Aggregate Association 2014 Annual Meeting on April 9th.

Turin has been moving rocks all his adult life. He had been running a rock quarry business for more than two decades with his father and three brothers. The former high school and college football star earned a degree in Civil Engineering and then joined the family business right out of college.

Gold Rush miners Todd and Jack Hoffman brought Dave in as an outside consultant at their Porcupine Creek, Alaska claim. He helped the rookie miners get their Alaskan operation running and also got gold fever. Dave joined the team full time and this season is mining the jungles of Guyana, a country located on the Mosquito Coast of South American.

There isn’t a piece of construction equipment that Dave is not qualified to operate. He is focused and determined, and while he doesn’t pretend to know everything about gold mining, he knows how to move a lot of earth safely and effectively. Over the past few seasons, he has also learned a lot about gold mining.

From Porcupine Creek to the jungles of Guyana, Dave is not one to back away from a challenge. In fact he prefers to attack them head-on. His faith in God, expertise and natural leadership skills give the Hoffman crew the boost they need to be as successful as possible while tackling each season’s obstacles.

Check local TV listings for the Discovery Channel and times to watch Gold Rush.

The 2014 MAA Annual Meeting is April 9, 2014 at the Italian Heritage Center in Portland.

Metallic Mineral Mining

(Continued from page 1)

that mining companies need certainty that a mining license will last for the economic life of the mine before they invest several hundred million dollars in permitting a mine and developing the mine infrastructure. Further, obtaining mining permits from two State agencies would be a costly and uncertain bureaucratic nightmare.

The most significant changes in the draft mining rules that were presented for public comment in October 2013 are (1) that the mining license would be valid for the life of the mine; and, (2) the permitting agency for a mining application is the DEP. For mining projects in the Unorganized Territories, the mining applicant must submit an application to the Land Use Planning Commission (LUPC) to request rezoning of the land for the new mine; LUPC must determine whether the proposed mining activity fits within the zoning designation of the area. The key to this new permitting arrangement is that LUPC’s rezoning decision would be known before the mining application process begins and the mining company spends significant investment in the permitting process.

Environmental groups are concerned that these new rules will weaken environmental protection and ruin Maine’s water resources. In my humble opinion based on over 30 years as a hydrogeologist (five of which I spent with the Maine DEP), this claim appears unfounded. Although the draft rules will likely undergo several changes that are unrelated to environmental protection, I believe that the rules are more rigorous and more protective of the environment than the old rules that they replace. By example, the draft rules (1) require two years of baseline monitoring for surface water and groundwater prior to submitting an application, (2) third-party inspections of the mining facility throughout the mine’s operation and during the post-closure period, and (3) annual review and reporting of how actual or proposed changes in the mining activity or approach will affect the mine reclamation and closure plan. Moreover, the draft rules also require annual adjustment of the financial assurance fund to cover these associated costs and cost adjustments to reflect improvements in technology and mining best practices.

Two major concerns that environmental groups have expressed about these rules relate to (1) when the escrow account for mine closure costs must be fully funded (i.e., before the start of mining versus after five years) and (2) where the groundwater monitoring compliance points must be relative to the mine and mine structures (i.e., immediately adjacent to the mine units or some distance away (e.g., 100 or more feet)). These and other issues will likely be the focus of lobbyists and legislators during the upcoming legislative session in January 2014.

How do these rules affect your pit and quarry facilities and your compliance burdens? Unless you propose to quarry rock that has high sulfide mineral (e.g., pyrite) content, the metallic mining rules should not directly affect you. Generally, quarry rock that is used for construction aggregate does not contain significant amounts of sulfide minerals that would present an environmental concern.

In summary, the environmental and permit rules pertaining quarries and the associated variance requirements may change over time on their own merits, but it is unlikely that proposed metallic mining rules will directly affect regulation and permitting of quarries. If you are concerned that your perspective quarry property may contain sulfide minerals that could affect the quality of the quarry aggregate you should contact a Maine Certified Geologist to assist you.

Steve Pinette is a Senior Hydrologist with Pineterra Consulting located in Scarborough Maine.

Sand & Gravel News
Federal Budget Funds
MSHA States Grants Programs

The state grants program, Section 503 of the Mine Act, is intended to assist States in developing and enforcing effective mine health and safety laws and regulations and to promote Federal-State coordination and cooperation in improving the health and safety for miners.

This past year, Mining Safety & Health Administration (MSHA) proposed to defund the state grants program, which led a few states (including Pennsylvania and North Carolina) to request public hearings regarding MSHA's proposed denial or reduction of funding. Concerned industry groups across the country wrote letters to Congress to advocate for continued funding of this important program. Apparently, Congress listened and included more than $8.4 million in funding to the Omnibus budget for FY 2014, specifically for the state grants program.

All four members of Maine’s Congressional Delegation voted to include funding for the states grants program. The Omnibus budget bill has been passed by Congress and signed by President Obama, which guarantees that the state grants program will have guaranteed funding for FY 2014.

Maine Department of Labor Safety Works program has used MSHA grant monies to assist small mining operations with establishing health and safety programs and compliance with MSHA regulations.

Marlee’s Ride
A Ride 2 Remember

Sunday, May 18, 2014

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Occupational Exposure to Respirable Silica

By Chris Genest

Workers in the construction and manufacturing industry are often exposed to dust in some form. Dust can be produced outside from cutting concrete or asphalt. Dust can also come from trucks driving through construction sites, loading dump trucks, loading concrete mixers or even just mixing a simple bag of concrete. In the past these everyday construction practices were just part of doing business. The general thinking was “That’s just part of the job. Dust happens. Deal with it I guess”.

Over the past few years more awareness has been made regarding exposure to dust during construction or manufacturing. Water, vacuums, dust masks, and sweepers are used to eliminate or reduce the exposure of dust to the workforce. While at first it seemed like a royal pain, now it just makes sense. Just look around. Our trucks and excavation equipment now have filters in them that take care of cleaning the air before it gets into the cab. Water is continuously sprayed on construction sites to knock down the dust. Filter systems are installed in manufacturing plants to scrub the air and make it a more enjoyable place to work. We’ve come a long way.

However, there is currently a proposal from the U.S. Department of Labor Occupational Safety & Health Administration (OSHA) that would essentially cut the minimal amount of allowable silica (basically fine dust) exposure by half (Docket No. OSHA-2010-0034).

There are many companies opposed to this change as they believe that this new rule would be overly costly and burdensome. They contend that documented exposures to silica and reported cases of silicosis are decreasing under the current requirements and the new regulations are not needed. They also contend that much of the data used to develop the rationalization for the new regulations are outdated.

To put things quite simply, opponents believe that it is premature to pursue more regulations without first understanding the effectiveness of the current rules. That is to say, what is the level of compliance? Are the standards effective at protecting workers, and if not why not? Without this background information, adopting new standards may only result in greater costs for small businesses.

For more information you can visit the National Concrete Masonry Association’s web site at: www.ncma.org or the OSHA website at: www.osha.gov

On the OSHA page click on the Regulations Tab then on the right side column under Open for Comment click on: View Items Currently Open for Comment. Then scroll down and on the left column under Category check Energy, Natural Resources, and Utilities. You can also contact any member of the Maine Congressional Delegation.

Chris Genest is General Manager of Genest Concrete Works, Inc. of Sanford and is a member of the MAA Board of Directors.
The list of top 20 violations cited by MSHA inspectors in the Sand & Gravel industry has not changed very much in the last few years. Operators continue to provide the inspectors with violations that are very obvious. Many of these can be identified and taken care of before a visit by an inspector.

A thorough and proper pre-shift inspection, issues that could affect safety can be identified and addressed. Problem solved. Safety Enhanced. The following standards were cited most frequently in the aggregate industry in 2013.

56.14104 - Moving Machine Parts, tops the list which is a guarding standard. Moving machine parts shall be guarded to protect persons from contacting gears, sprockets, chains, drive, head, tail, and take-up pulleys, flywheels, couplings, shafts, fan blades, and similar moving parts that can cause injury. Guards shall not be required where the exposed moving parts are at least seven feet away from walking or working surfaces.

56.12004 - Electrical Conductors, shall be of a sufficient size and current-carrying capacity to ensure that a rise in temperature resulting from normal operations will not damage the insulating materials. Electrical conductors exposed to mechanical damage shall be protected.

50.30 - Preparation and submission of MSHA Form 7000-2, Each operator of a mine in which an individual worked during any day of a calendar quarter shall complete a MSHA Form 7000-2. This can be done on-line through the MSHA website within 15 days following the end of the quarter.

56.14100 - Safety defects; Examination, correction & records. Self-propelled mobile equipment to be used during a shift shall be inspected by the equipment operator before being placed in operation on that shift. Defects on any equipment, machinery, and tools that affect safety shall be corrected in a timely manner to prevent the creation of a hazard to persons. This inspection, if done properly should identify any safety issues and eliminate a majority of safety defects that could be grounds for a citation.

56.14112 - Construction & Maintenance of Guards, Guards shall be constructed and maintained to withstand the vibration, shock, and wear to which they will be subjected during normal operation; and not create a hazard by their use. Guards shall be securely in place while machinery is being operated, except when testing or making adjustments which cannot be performed without removal of the guard.

(Continued on page 7)
MSHA TOP 20 SAFETY VIOLATIONS

(Continued from page 6)

56.12028 Testing Grounding Systems, Continuity and resistance of grounding systems shall be tested immediately after installation, repair, and modification; and annually thereafter. A record of the resistance measured during the most recent tests shall be made available on a request by the Secretary or his duly authorized representative.

56.12032 Inspection and Cover Plates, Inspection and cover plates on electrical equipment and junction boxes shall be kept in place at all times except during testing or repairs.

56.9300 Berms or Guardrails, shall be provided and maintained on the banks of roadways where a drop-off exists of sufficient grade or depth to cause a vehicle to overturn or endanger persons in equipment. They shall be at least mid-axle height of the largest self-propelled mobile equipment which usually travels the roadway.

56.4201 Inspection of Fire Extinguishers, shall be inspected visually at least once a month to determine that they are fully charged and operable, documentation should be done on the inspection tag. At least once every twelve months, maintenance checks shall be made of mechanical parts, the amount and condition of extinguishing agent and expellant, and the condition of the hose, nozzle, and vessel to determine that the fire extinguishers will operate effectively.

56.11001 Safe Access, Safe means of access shall be provided and maintained to all working places which will prevent slips, trips, & falls.

56.20003 Housekeeping. At all mining operations workplaces, passageways, storerooms, and service rooms shall be kept clean and orderly. The floor of every workplace shall be maintained in a clean and, so far as possible, dry condition. Where wet processes are used, drainage shall be maintained, and false floors, platforms, mats, or other dry standing places shall be provided where practicable; and every floor, working place, and passageway shall be kept free from protruding nails, splinters, holes, or loose boards, as practicable.

56.12008 Insulation & Fittings for Power Wires & Cables, shall be insulated adequately where they pass into or out of electrical compartments. Cables shall enter metal frames of motors, splice boxes, and electrical compartments only through proper fittings. When insulated wires, other than cables, pass through metal frames, the holes shall be substantially bushed with insulated bushings.

56.1000 Notification of commencement of operations and closing of mines. The owner, operator, or person in charge of any metal and nonmetal mine shall notify the nearest Mine Safety and Health Administration and Metal and Nonmetal Mine Safety and Health District Office before starting operations, of the approximate or actual date mine operation will commence. The notification shall include the mine name, location, the company name, mailing address, person in charge, and whether operations will be continuous or intermittent. This can be completed with an e-mail or fax to the Manchester Field Office.

When any mine is closed, the person in charge shall notify the nearest district office as provided above and indicate whether the closure is temporary or permanent.

56.4101 Warning Signs, prohibiting smoking and open flames shall be posted where a fire or explosion hazard exists.

56.12018 Identification of Power Switches. Principal power switches shall be labeled to show which units they control, unless identification can be made readily by location.

56.14100 Safety defects; Examination, correction & records. Self-propelled mobile equipment to be used during a shift shall be inspected by the equipment operator before being placed in operation on that shift. Defects on any equipment, machinery, and tools that affect safety shall be corrected in a timely manner to prevent the creation of a hazard to persons.

When defects make continued operation hazardous to persons, the defective items including self-propelled mobile equipment shall be taken out of service and placed in a designated area posted for that purpose, or a tag or other effective method of marking the defective items shall be used to prohibit further use until the defects are corrected.

Defects on self-propelled mobile equipment affecting safety, which are not corrected immediately, shall be reported to and recorded by the mine operator. The records shall be kept at the mine or nearest mine office from the date the defects are recorded, until the defects are corrected. Such records shall be made available for inspection by an authorized representative of the Secretary.

This standard is cited twice in the top 20! #4 & #18

56.14207 Parking procedures for unattended equipment. Mobile equipment shall not be left unattended unless the controls are placed in the park position and the parking brake, if provided, is set. When parked on a grade, the wheels or tracks of mobile equipment shall be either chocked or turned into a bank.

56.9300 Berms or Guardrails, shall be provided and maintained on the banks of roadways where a drop-off exists of sufficient grade or depth to cause a vehicle to overturn or endanger persons in equipment. Berms or guardrails shall be at least mid-axle height of the largest self-propelled mobile equipment which usually travels the roadway.

This information was compiled from the MSHA.gov website with comments by Chip Laite.
MAINE AGGREGATE ASSOCIATION

Maine Aggregate Association is a statewide, member-based group of businesses and individuals involved with the gravel and rock industries. Established in 1994, MAA has become an effective and respected voice for the industry.

MAA membership includes gravel pit owners, quarry operators, aggregate processors and truckers as well as equipment dealers, banks, insurance agencies and consulting firms that serve the aggregate industry. 44 percent of MAA membership is comprised of companies with less than 5 employees, another 34% of our member companies have less than 35 employees, and the remaining 22% have 36 or more employees. Only a handful has more than 100 employees.

MAA members led the drive to reform the gravel pit regulations, helped write the new laws, and then lobbied hard to get them passed. Today MAA continues its advocacy on behalf of the aggregate industry by ensuring that the rules regulating gravel and rock extraction remain effective and practical.

Other issues include truck weights, transportation and highway issues, mine safety, environmental regulations and land use restrictions. Air emission licensing and compliance requirements for rock crushers, stationary diesel engines and concrete and asphalt plants are also of concern.

MAA sponsors environmental compliance workshops and safety seminars for gravel pit & quarry operators to help keep them informed of and in compliance with regulations.

The MAA Board of Directors, elected annually at the Annual Membership Meeting, slated for April 9, 2014 at the Italian Heritage Center in Portland, stays on top of issues by maintaining a full-time lobbyist in Augusta. In addition, many of the directors serve as volunteers on various state boards and task forces focused on the issues that affect us all.

For more information, contact any of the Directors listed on page 2 of this newsletter, or visit us online at: www.maineaggregate.org

Join us for the MAA Annual Membership Meeting & Banquet See Page 2 for details