
From: Howard, Matthew (RTM) [mailto:Matthew.Howard@riotinto.com]
Sent: Friday, December 17, 2010 1:42 PM
To: zzMSHA-Standards - Comments to Fed Reg Group
Subject: Improving Mine Safety - Comments from Rio Tinto Minerals

Rio Tinto Minerals (RTM) is pleased to submit the following comments in response to the request of the Mine Safety & Health Administration (MSHA) for information on effective, comprehensive safety and health management programs. 75 Fed. Reg. 54801 (Sept. 9, 2010). RTM participated in MSHA's October 12, 2010 forum in Sacramento, California on safety and management programs and these written comments expand upon my testimony.

Kind regards

Matthew Pedersen-Howard
Director of Health & Safety
Rio Tinto Minerals
Cell: 760 559 4499

AB71-COMM-12

December 17, 2010

Mine Safety and Health Administration
MSHA-comments@dol.gov
Attn: RIN 1219-AB71
Office of Standards, regulations, and Variances
1100 Wilson Blvd., Room 2350
Arlington, VA 22209-3939

RE: Rio Tinto Minerals' Comments on Safety & Health Management Programs for Mines, 75 Fed. Reg. 54801 (Sept. 9, 2010), RIN 1219-AB71

Rio Tinto Minerals (RTM) is pleased to submit the following comments in response to the request of the Mine Safety & Health Administration (MSHA) for information on effective, comprehensive safety and health management programs. 75 Fed. Reg. 54801 (Sept. 9, 2010). RTM participated in MSHA's October 12, 2010 forum in Sacramento, California on safety and management programs and these written comments expand upon the testimony of Matt Pederson-Howard, Director of Health & Safety for RTM.

Background

Rio Tinto Minerals is a Rio Tinto company – one of the world's largest mining and exploration companies. RTM is a leading supplier of borates and talc with 2,500 people working at 40 facilities throughout the world. RTM has locations not only in the United States, Canada and Mexico but also France, Argentina, Belgium Italy, Spain and Australia. RTM supplies nearly half the global demand for refined borates – key ingredients in fiberglass, ceramics, glass, fertilizers, wood preservatives and hundreds of other uses. RTM also supplies 25 percent of the world's talc consumption.

RTM Safety & Health Philosophy

Rio Tinto Minerals, and Rio Tinto, are proud of the safety and health records of their facilities throughout the United States, and the world. Beginning in 1998, Rio Tinto implemented a comprehensive behavior based safety system which was adopted wholeheartedly by RTM. We believe people's behaviors are governed not only by systems, rules and procedures but also by their personal beliefs and values, along with the company culture within which they work. RTM strives to develop an interdependent safety culture which involves having people, process, and systems working in unison and everyone being prepared to look out for one another.

Shifting our Culture

To meet this goal, RTM has implemented a behavior based safety system at all levels of the company from corporate executives to hourly workers to contract employees. Leaders are expected to champion safety improvement and demonstrate genuine commitment to the importance of safety to the organization. Employees are expected to be proactively involved in all areas of safety management and are responsible for identifying and managing risks in the workplace. We impose the same expectations on all contractors who perform work at our operations.

RTM has worked to fundamentally shift the culture at its facilities. RTM went from top-down mandates designed to ensure safety to a bottom-up ownership of safety; that is, we tasked our employees and management to take responsibility for their own safety, the safety of their co-workers, and the overall safety of the workplace. We have endeavored to make safety a core-value of all RTM managers, employees, and contractors.

Former Paradigm

Top-Down Control
External Enforcement
Outcome Focused
Failure Oriented
Negative Motivation
Rugged Individualism
Individual Fault-Finding
Safety as a Priority

Current Paradigm

Bottom-Up Ownership
Shared Responsibility
Process (behavior) Focus
Achievement Oriented
Positive Motivation
Interdependent Teamwork
Systems Fact-Finding
Safety as a Value

The Management System

Our management system for safety has four phases: (1) plan; (2) do; (3) check; and (4) review. Throughout all of these phases, we expect company leadership to demonstrate commitment to a safe workplace and to provide the resources necessary for a safe workplace. We strive to establish clear and understandable expectations with consistent consequences to reinforce behavior. These standards and expectations are integrated into our facility-wide health, environment, safety and quality protocols.

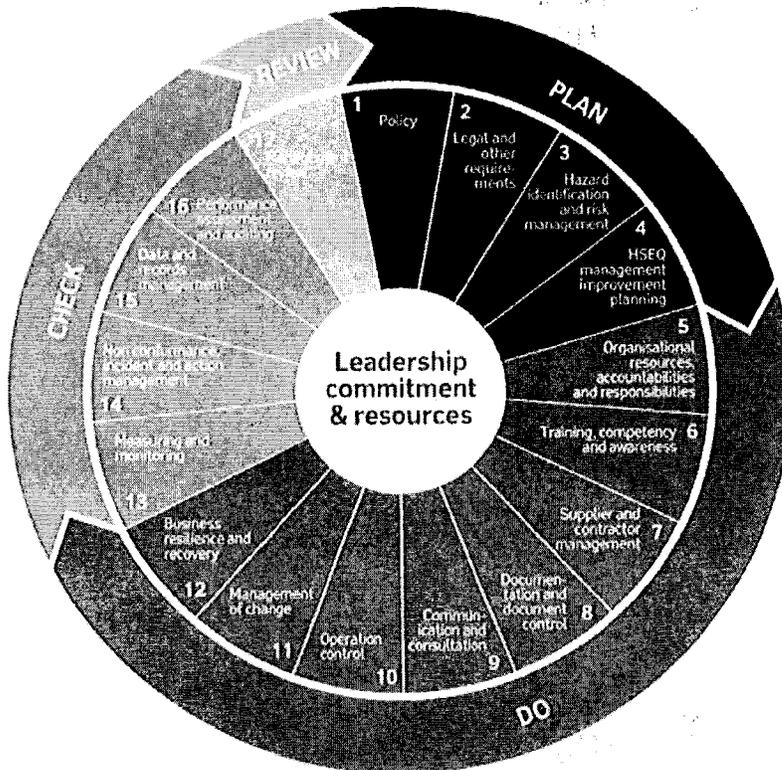


Figure 1: Rio Tinto Management System overview

Reconciling a Behavior Based Safety System with the Mine Act

As with all systems, a behavior based safety system requires standards and benchmarks to judge success. RTM has adopted a mandatory set of safety standards which we verify through a rigorous audit process. The standards reflect the requirements of the Mine Act and MSHA regulations. These standards are constantly updated in light of new knowledge and experience.

Rio Tinto also has developed a company-wide protocol for consistent and accurate reporting of injuries and fatalities. This protocol allows us to analyze incidents and assess whether adjustments are needed to company policies, procedures or standards. The reported all injury frequency rate includes data for employees and contractors. At RTM, as our behavior based safety system has become engrained into our culture, we have seen a measurable decline in the all injury frequency rate at our operations.

RTM Safety Performance 2000 - 2010 (YTD)

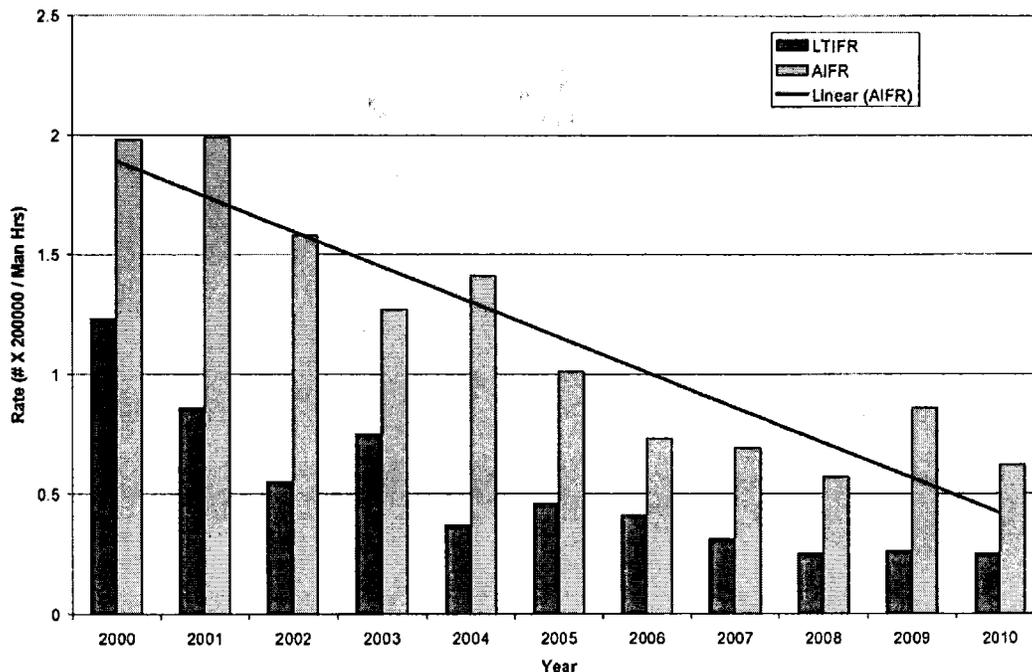


Figure 2: Graph of Rio Tinto Minerals injury statistics from 2000

Unfortunately, the behavior based safety system adopted by RTM which has led to a safer workplace may often clash with the strict liability standards of the Mine Act and MSHA's inflexible regulatory requirements. The Mine Act and implementing regulations implement a punitive system based on subjective citations and penalties. These citations are often unspecific to a particular behavior and are delayed in time. Moreover, the lack of clarity and consistency encourages a feeling of unfairness and distrust. A behavior based system is designed to immediately identify, assess and remedy an unsafe behavior or condition. It is built on positive reinforcement, not just negative punishments, by rewarding desired behaviors.

Recommendations

We recognize MSHA must interact with a broad spectrum of mining companies and that there are limits of flexibility with regards to the Mine Act, as a result some of these recommendations may be beyond the scope of what is achievable but it is our view that these concepts will help improve mine safety in the United States.

- Clarifying the likelihood qualifiers in the MSHA citation process would reduce the inconsistency of citation assessments that are based on likelihood of a potential injury and the level of negligence perceived. Clearer definitions would benefit inspectors, miners and operators alike. Citations have likelihood descriptors of "No Likelihood, Unlikely, Reasonably Likely, Highly Likely & Occurred" with no corresponding definition, guidance, or standards.

10. Gravity: A. Injury or Illness (has) (is): No Likelihood <input type="checkbox"/> Unlikely <input type="checkbox"/> Reasonably Likely <input checked="" type="checkbox"/> Highly Likely <input type="checkbox"/> Occurred <input type="checkbox"/>					
B. Injury or Illness could reasonably be expected to be: No Lost Workdays <input type="checkbox"/> Lost Workdays or Restricted Duty <input type="checkbox"/> Permanently Disabling <input type="checkbox"/> Fatal <input checked="" type="checkbox"/>					
C. Significant and Substantial (See Reverse): Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				D. Number of Persons Affected <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="1"/>	
11. Negligence (check one) A. None <input type="checkbox"/> B. Low <input type="checkbox"/> C. Moderate <input type="checkbox"/> D. High <input checked="" type="checkbox"/> E. Reckless Disregard <input type="checkbox"/>					

Figure 3: MSHA 7000-3 form for citations

In Rio Tinto, as shown below, we aim to assist our employees in the area of risk judgment by providing clear qualifiers for likelihood:

Likelihood	Likelihood description	Frequency
ALMOST CERTAIN	Recurring event during the life-time of an operation / project	Occurs more than twice per year
LIKELY	Event that may occur frequently during the life-time of an operation / project	Typically occurs once or twice per year
POSSIBLE	Event that may occur during the life-time of an operation / project	Typically occurs in 1-10 years
UNLIKELY	Event that is unlikely to occur during the life-time of an operation / project	Typically occurs in 10-100 years
RARE	Event that is very unlikely to occur very during the life-time of an operation / project	Greater than 100 year event

Figure 4: Rio Tinto guidance for likelihood assessment

- Providing clear, simple and transparent POV Criteria. MSHA should redesign the requirements for a mine operation to be placed on Pattern of Violation to be transparent, clearly measurable, and accounting for both safety performance and compliance rates. The current Pattern of Violation (POV) process used by MSHA is complicated and unwieldy. The criteria used to place a mine on pattern status are confusing and a mine operator has a difficult time in assessing how

close they are to being placed into pattern. Moreover, the process is such that it is nearly impossible for a mine operation to fall into a POV.

We would recommend placing a mine by corresponding category in "pattern of violations" status if, per inspection hour: (1) its regulatory compliance rate is in the bottom 3 percent; and (2) its reportable incident rate is in the bottom 8 percent. In addition to increased penalties, a mine meeting one but not both of the criteria should receive a "notification" letter and be required to develop and submit to MSHA a plan to reduce the identified deficiency. These figures should be evaluated on a quarterly basis and be based on a 12-month rolling average.

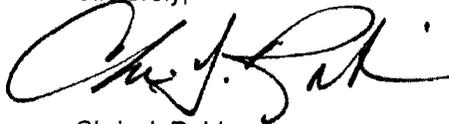
- Support and guidance for poor performing operations (not just punishment and penalty). We believe many sites regulated by MSHA require support and additional resources to implement process safety systems and risk management. MSHA should dedicate additional resources to work collaboratively with mine sites in need of such assistance to improve safety performances separately from enforcement activities.
- MSHA should ask Congress for the authority and funding to establish a pilot program that would allow metal/non-metal surface mines with exemplary safety and health records to participate in a cooperative program to effectively identify, evaluate, prevent and control occupational hazards to prevent employee injuries and illnesses. A model for this type of program is the OSHA VPP program.

To be eligible to participate in the pilot program, a metal/non-metal surface mine operator must: demonstrate worker support for participation in the program; management leadership and meaningful worker involvement; systematic assessment of hazards, a comprehensive hazard prevention, mitigation, and control program; employee safety and health training; and safety and health program evaluations.

These mines would still be obligated to meet all compliance obligations and be subject to some level of inspections and enforcement.

Thank you for allowing Rio Tinto Minerals to provide these comments and participate in your public forums. If you have any questions or would like further information, we can provide more detailed proposals or meet with to discuss these recommendations further.

Sincerely,



Chris J. Robison
Vice President, Operations
Rio Tinto Minerals