



February 17, 2006

Mine Safety & Health Administration
Office of Standards, Regulations and Variances
1100 Wilson Boulevard – Room 2350
Arlington, Virginia 22209-3939

Dear Sir or Madam:

RIN: 1219-AB29

Vulcan Materials Company (“Vulcan”) is the nation’s largest producer of construction aggregates, primarily crushed stone, sand and gravel. Vulcan operates over 300 aggregates plants and other production and distribution facilities, which provide a diversified line of aggregates and related services to all parts of the construction industry in 22 states, the District of Columbia and Mexico. Vulcan Materials Company operates seven different underground limestone mines (with one going to surface) in three different states throughout the country. Within these mines, diesel equipment is the standard equipment utilized.

Vulcan is nationally recognized for its commitment to safety, health and environmental stewardship. Vulcan has played a significant leadership role within the industry in developing and identifying best practices with respect to health and safety. Vulcan is truly committed to protecting all its employees from hazards that might occur in the work place, including any that might be caused by diesel exhaust. Likewise, Vulcan is a strong proponent of sound scientific research that supports fair enforcement of regulatory standards that are both economical and technologically feasible.

Vulcan respects the government’s effort to reduce diesel emissions through regulation of diesel particulate matter (“DPM”) and has been completely prepared to support any reasonable program. For the reasons outlined below, Vulcan firmly believes that MSHA should maintain the interim concentration limit of 308 ug/m³ EC as the permanent permissible exposure level for DPM. MSHA's insistence on an unrealistic final limit of 160 micrograms per cubic meter of air is not technologically and economically feasible, and thus threatens the underground mining industry as a whole. This proposed limit particularly threatens underground stone mines, which range from very small to very large. No mine should be out of compliance with MSHA requirements. Indeed, MSHA has the power to immediately shut down a mine that fails to meet regulatory requirements. Vulcan will support reasonable regulations that all of its underground mines can meet. However, it opposes arbitrary limits that have never been shown to be feasible or necessary.

Prior to 2001, the Department of Labor, Mine Safety and Health Administration (MSHA), had no regulation governing workers' exposure to diesel exhaust emissions in mines. On January 19, 2001, the last day of Bill Clinton's administration, MSHA promulgated a regulation limiting diesel exhaust emissions, based on the level of carbon content in exhaust emissions from diesel equipment in underground mines. This particular regulation set an interim limit of 400 micrograms of total carbon per cubic meter of air. Without any valid scientific basis, MSHA assumed that emissions from diesel engines could be brought within this limit through the use of exhaust filtration, ventilation augmentation and replacement of old equipment. At the same time, MSHA prescribed a far lower final limit for diesel exhaust an unprecedented 160 micrograms total carbon per cubic meter of air. This final limit was to be effective five years later, on January 19, 2006. At the time of promulgation of this limit, MSHA could not identify specifically the type of technology that could guarantee compliance with this extraordinary limit. That was true in 2001 and it is still true today.

The 2001 regulation was quickly challenged by the mining industry in federal court. This court challenge caused MSHA to engage in additional feasibility studies with industry, but acknowledged recently that the in-mine documentation on diesel exhaust control technology was "limited" at best.

Since the 2001 rulemaking, many limitations as to the feasibility of compliance with the final limit have been identified, but MSHA has maintained that "practical mine worthy filter technology," is a key factor in the industry's inability to comply with the final limit.

In 2004, the Environmental Protection Agency (EPA) announced a timeframe for industry to develop cleaner burning engines. The Tier 4 engines mandated by EPA are to be available in the very near future and are designed to reduce the DPM levels by at least 90%. Tier 4 engines that are greater than 130 hp are to be available in 2011, engines from 56 to 130 hp will be available in 2012, and 19hp to 56 will be available in 2013. This includes the availability of very low sulfur fuel as well. This Tier 4 technology deals with the source; however, the limit should not be reduced until these engines are available and tested in the underground mine environment. If MSHA believes that the technology will eventually catch up to the regulatory limit, then their phase-in schedule should coincide with EPA engine mandate. Vulcan does not support the phased in reduction of the limit and believes that the interim limit of 308 mg/m³ should remain as the permanent exposure limit.

Another major compliance concern with the final rule involves complications with obtaining an accurate measurement of the amount of carbon present with the use of currently available technology. Mine conditions that vary tremendously, other sources of carbon in the mine environment and cigarette smoke are all factors that affect the measurement of carbon in underground diesel equipment.

It also has been recognized that there are serious questions as to whether diesel exhaust can be scientifically associated with adverse health consequences, such as cancer. NIOSH and NCI are conducting a large scale study of 14,000 miners to answer this question and to determine what level of exposure may be safe. MSHA's rulemaking has not been scheduled so as to allow the

study to bring forth its findings. The study is anticipated to be completed and the results released in 2006 or 2007.

As of June 2005, MSHA was still holding fast to the unrealistic 2006 final limit established in 2001, but MSHA did promulgate some technical changes to the rule. In proposed rulemaking on September 7, 2005, MSHA acknowledged that the industry "is encountering economic and technological feasibility issues" as it strives to reduce levels below the interim limit. Thus, MSHA has recognized that it has never been able to establish how the industry will be able to move from the interim limit to the final limit. In the most recent rulemaking, MSHA is proposing to phase in the final limit over an additional five-year period. Given that the problems were not resolved in the past five years, however, there is nothing in MSHA's rulemaking to support the belief that the problems can be resolved in the next five years.

A limit of 160 micrograms was unrealistic five years ago; it is unrealistic now and it will be unrealistic five years hence. Moreover, because the proposed standard is not based on the latest health studies and is not technically feasible, it is very likely in violation of the Data Quality Act.

Since the 2001 promulgation of the MSHA DPM standard, Vulcan has implemented a number of diesel exhaust controls at significant expense. Some of these controls are as follows:

- Usage of low sulfur fuel/EPA registered fuel additive in all of its underground mines.
- Increased and improved quality of preventive maintenance by utilizing an outside service contractor to conduct engine maintenance of underground fleet at some mines.
- Two mines have all new equipment with Tier 3 engines with plans to upgrade all equipment.
- Installed Fuel Preparator on selected pieces of equipment at three mines.
- Utilizing pressurized and filter cab in equipment at all mines.
- Water exhaust scrubber installed on powder truck at one mine.
- Conducted a mine ventilation survey by an outside contractor at three mines.
- All mines have performed major ventilation upgrades, which include:
 - Installation of new, larger portable fans that are used at active heading to help direct air flow.
 - Installation of larger main ventilation fans at two mines.
 - Installed larger booster fans in the duct tubing at three mines.
 - Installed new ventilation stoppings and curtains at various locations throughout the mine at all mines.
 - Replaced less efficient ventilation fans with high volume/low pressure fans. All new fans in the future will be replaced with fans of this type.
- Utilizing "Panel Mining" at two mines to help direct airflow throughout the mines.
- Aggressive annual air monitoring program used to identify possible areas of over exposure.
- Installed independent in-cab HEPA filters in mobile equipment at one mine.

Despite all of these costly measures by Vulcan, based on MSHA's proposed phased in permissible exposure limit ("PEL"), our current internal exposure data indicates that we have 1.11% overstandard that would equate to approximately 21% overstandard ($>160 \text{ mg/m}^3$) in 2011. In our experience, the proposed rule's phased-in schedule for lowering the DPM

permissible exposure limit (PEL) below the current limit of 308 ug/m³ EC (elemental carbon) should be withdrawn and MSHA should instead adopt the interim limit as its final limit. The data gathered at our mines and at others involved in the “31 mine study” demonstrates that lowering the limit below the interim limit would cause problems in complying with the lower limit on a consistent basis. Regardless of the usage and application of current available control technologies in our mines, we feel that 100% attainment is still questionable, if not impossible.

Vulcan Materials Company urges MSHA to abandon its approach because it lacks any credible scientific basis from a health perspective, it is premature given the pending results of the joint NIOSH-NCI study of cancer and DPM exposure in underground nonmetal miners and it is not technologically feasible. The preliminary results of this study suggest that there is no elevated cancer risk for these individuals and MSHA should await the publication of the final report before moving forward with a standard that uses the purported carcinogenicity of diesel exhaust as the justification for many of the regulatory provisions.

Finally, the preamble to the proposed rule indicates that MSHA’s considerations are based upon the entire rulemaking record, relating back to information submitted and considered when the initial final rule was adopted in January 2001. There are no indications, however, that this information is being subjected to the legally mandated scrutiny that now applies under the U.S. Department of Labor’s data quality guidelines, nor that all of the scientific research upon which the agency relies has been subject to peer review. We believe that by incorporating by reference the previous rulemaking record, this newly effective, heightened level of scrutiny is applicable to any of the studies and reports that influence MSHA’s public policy decisions in the current rulemaking proceeding.

In light of these deficiencies, we strongly encourage the agency to maintain the interim concentration limit of 308 ug/m³ EC as the permanent permissible exposure level for DPM.

Vulcan Materials Company would like to thank you for your consideration of our perspective on this critical occupational health issue.

Sincerely,



Carlos R. Robinson
Corporate Industrial Hygienist

c: Kelly Bailey
David Donaldson
Norman Jetmundsen
Brad Rosenwald