

Statement for the Mine Safety and Health Administration Public Meeting on Request for
Information on Exposure of Underground Miners to Diesel Exhaust
(Docket No. MSHA-2014-0031)

Mine Safety and Health Administration Headquarters
201 12th St, South, Rooms 7W204 and 7W206
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By

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I am Richard Pasquier, General Counsel for Tronox Alkali, a unit of Tronox Limited, a global leader in the mining, production, and marketing of inorganic materials and chemicals. Tronox Alkali operates the Alkali Chemicals Business that Tronox Limited acquired from FMC Corporation on April 1, 2015.

Tronox Alkali is the world's largest producer of natural soda ash with mining and processing facilities located in Green River, Wyoming. We employ approximately 950 employees in Green River and nearly 60 employees located in Philadelphia. We mine more than 4 million tons of trona annually for use in essential everyday products like commercial and residential glass, computer screens, pharmaceuticals, baking, and personal care products.

Tronox Alkali is a member of the Industrial Minerals Association – North America (IMA-NA), a trade association whose membership includes other trona producers and nonmetal mining and processing companies, as Mark Ellis, President of IMA-NA, already has described to you. Approximately one year ago, IMA-NA formed a Diesel Emissions Task Force, in which

Tronox Alkali is an active participant and for which I serve as Chair. I offer this statement today in my capacity as Chair of the Task Force. The Task Force was formed to enable us to learn as much as possible about the health effects of diesel exhaust in order to protect our employees. The Task Force also promotes and is interested in the exchange, testing, and verification of scientific information concerning the use of diesel equipment in mining operations.

The Task Force is made up of operators of underground mines producing trona, calcium carbonate, industrial sand, and wollastonite. All of the members of the Task Force use at least some diesel equipment in their mining operations and we all share a commitment to the health and safety of our employees. Some of those members include the study mines that participated in the Diesel Exhaust in Miners Study, known as DEMS, conducted by the National Institute for Occupational Safety and Health (NIOSH) and the National Cancer Institute (NCI). Tronox Alkali's Green River operation was one of those study mines when it was owned by FMC. We agreed to participate in that study to advance scientific understanding of the potential health effects of diesel exhaust and because we believed our participation would ultimately benefit our workforce. Thousands of hours were spent assembling and organizing background information on the mining operations, use of diesel equipment from 1956 through 1998, and the records of 2,451 employees.

The Task Force and its members have had a keen interest in the publications that have resulted from the DEMS project, including papers published both by the original NIOSH/NCI investigators and subsequent analyses by independent analysts, including by a consultant to Tronox Alkali and the Task Force, Dr. Roger O. McClellan. The literature on the health hazards of exposure to diesel exhaust is voluminous, constantly changing, and challenging to interpret. To assist us in that task, the IMA-NA Diesel Emissions Task Force has engaged Dr. McClellan

as an advisor. Dr. McClellan is here today to offer his initial thoughts on the MSHA Request for Information (the RFI) on Exposure of Underground Miners to Diesel Exhaust, published in the *Federal Register* on June 8, 2016.

The Diesel Emissions Task Force will work with IMA-NA and Dr. McClellan to respond to the RFI and appreciates the opportunity do so. We support MSHA's desire to evaluate the effectiveness of MSHA's current diesel regulations to ensure they are protective of employees' health, a value that is at the core of our own operations. But it is critical that MSHA's inquiry be thoroughly grounded in science, meaning that due consideration be given to all of the currently available scientific work, not only the original DEMS papers but also the reanalysis work that has been done with the DEMS data. MSHA must also take into account workplace practices and operators' experiences in complying with current regulations.

IMA-NA has asked Dr. McClellan to participate in today's meeting and to review and comment on Section B of the RFI, entitled "Recent Research." As he will explain, the RFI's summary of DEMS is incomplete. This is a critical conclusion since this summary is the scientific basis for issuance of the RFI and any subsequent analyses and actions that may lead to a change in the existing regulations.

DEMS is a historical, backwards-looking study and there are substantial uncertainties in its use of estimated exposures to Respirable Elemental Carbon (REC). Dr. McClellan will describe alternative estimates of REC, the use of which he and the other independent researchers looking at the DEMS data have discovered result in substantially different characterization of the lung cancer risk for the DEMS miners. Moreover, he will emphasize that all of the analyses (both by the original NCI/NIOSH investigators and independent analysts) relate to older diesel engine exhaust emissions and exposure that occurred in 1982 and earlier because of the 15-year

lag time between exposure and any significant response. Any serious look at DEMS must take into account the fact that over the past three decades, improvements in diesel engine technology and fuels, most notably major reductions in sulfur content, have resulted in substantially reduced particulate emissions.

The IMA-NA Diesel Emissions Task Force has initiated an analysis of specific questions posed in the RFI. It is readily apparent that these questions are not only extraordinarily technical, but also may be best addressed by working with the manufacturers of diesel engines and suppliers of mining equipment. As I mentioned, there have been substantial improvements in diesel engine technology and exhaust after-treatment systems over the past quarter century, which largely were driven by the Environmental Protection Agency's (EPA) diesel engine standards. Engine and equipment manufacturers would be much more familiar with those changes than mine operators.

As a result, Tronox Alkali and the IMA-NA propose that MSHA and NIOSH work with the mining industry (both metal/nonmetal and coal), diesel engine manufacturers, diesel mining equipment manufacturers, and representatives of organized labor to form a Diesel Exhaust Health Effects Partnership to address these complex issues and reach consensus on the path forward. At this meeting, the Task Force is submitting a letter to MSHA and NIOSH formally requesting the formation of that partnership. In order to allow this Partnership to begin its work, we also are requesting that the comment period on the RFI be extended for at least 90 additional days. That extended amount of time is critical in any event to allow the regulated industry to respond to the detailed questions MSHA has posed.

Before I conclude my remarks, I note that we were pleased to see MSHA acknowledge the substantial progress made in reducing average miner exposures in metal/nonmetal operations

from 2006 through 2015. It would be useful if MSHA were to share this matrix of exposure data with the Partnership we are requesting be formed. Indeed, we earnestly hope this Partnership will address diesel technology improvements and best practices for monitoring miner exposures, as well as achieving further reductions in exposures to diesel engine exhaust if further reductions are deemed necessary.

In summary, Tronox Alkali and the other members of the IMA-NA Diesel Emissions Task Force are committed to providing a safe and healthful work environment for all our employees. This requires a management approach that addresses a wide range of factors, including exposure to diesel engine exhaust. Like MSHA, we are pleased with the continuous reductions in diesel exposure in nonmetal mines since the 1980s. We look forward to working collaboratively with MSHA, NIOSH, and other stakeholders in a Partnership to better understand the basis of those reductions and identify best practices for the future to ensure worker exposures are held to levels protective of miner health.