

U.S. Department of LaborOccupational Safety and Health Administration
Washington, D.C. 20210

Reply to the Attention of:

February 19, 2002

Scott Masten, PhD
Interagency Committee for Chemical
Evaluation and Coordination (ICCEC)
National Institute of Environmental Health Sciences
111 T.W. Alexander Drive
P.O. Box 12233
Research Triangle Park, NC 27709-2233

Dear Dr. Masten:

It has come to our attention that the National Toxicology Program (NTP) has received from the National Institute for Occupational Safety and Health (NIOSH) a nomination for short-term testing of five (5) agents that may be used as substitutes for silica sand in abrasive blasting. These agents are steel grit, garnet, crushed glass, coal slag and specular hematite. The U.S. Occupational Safety and Health Administration (OSHA) supports this nomination for testing. In the most recent Semi-Annual Regulatory Agenda, OSHA has reiterated its intent to proceed with rulemaking on occupational exposure to crystalline silica. Assessment of the relative toxicities of abrasive blasting substitutes is a critical part of that rulemaking activity and will permit the Agency to issue reliable guidance to employers and workers on the use of substitutes.

The seriousness of the health hazards associated with silica exposure is demonstrated by the disabling and often fatal illnesses such as silicosis that continue to occur in silica-exposed workers, including sandblasters and rock drillers. In 1996, the International Agency for Research on Cancer (IARC) classified crystalline silica inhaled in the form of quartz or cristobalite from occupational sources as carcinogenic to humans. Other diseases such as kidney and autoimmune have also been associated with silica exposure.

As discussed by NIOSH in their nomination package, Great Britain and other European countries prohibited the use of crystalline silica for abrasive blasting 40 to 50 years ago. In 1974, NIOSH recommended that silica sand be prohibited as an abrasive blasting material. In the U.S., the use of substitutes for silica sand has been growing; for example, last month the state of Massachusetts decided to place silica on its toxics use reduction list, which would require the use of substitutes for silica sand in foundries and abrasive

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blasting operations in manufacturing. Given that preliminary studies conducted by NIOSH have indicated that some of these substitutes may possess fibrogenic activity, the increasing use of these materials makes it more imperative that they be adequately tested to ensure the protection of workers who are exposed during their use.

For the reasons detailed above, OSHA has supported and followed with great interest the previous studies done by NIOSH on the toxicity of abrasive blasting substitutes. Information gained from additional testing as proposed by NIOSH is essential for OSHA both in its rulemaking activities and in developing guidance to promote the use of safer abrasive blasting substitutes. If you have any questions or comments related to this supporting nomination, please contact Mr. William Perry at (202) 693-2284 or at Bill.Perry@osha.gov.

Sincerely,

[Redacted]

Steven F. Witt
Director of Health Standards Programs