OSHA Issues Alert on Non-Silica Fracking Hazards

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OSHA has issued an advisory on non-silica health and safety hazards in the hydraulic fracking industry.

OSHA said the purpose of its 41-page document, *Hydraulic Fracturing and Flowback Hazards Other than Respirable Silica*, is to inform employers and workers about the known hazards that result from hydraulic fracturing and flowback and to offer ways to reduce exposure to these hazards. It leaves discussion of silica-related hazards to publications previously released, including a joint OSHA-NIOSH hazard alert and an OSHA "infosheet."

The agency makes clear the document does not impose additional legal or compliance obligations on employers beyond existing OSHA standards, regulations, and OSH Act's general duty clause.

"*Fracking*" is a process that blasts through underground formations to release oil and natural gas. Flowback, the flow of fluids and hydrocarbons back out of the formations fractured by chemical- and sand-containing fluids, is part of the process. According to OSHA, some 35,000 wells are hydraulically fractured in the United States every year. Fracking is classified as a subsector of the oil and gas extraction industry. The industry experiences a higher fatality rate than most of U.S. general industry; however, no information is publicly available on worker injuries, illnesses, or fatalities connected specifically with fracking or flowback operations.

The OSHA publication, considered a guidance document by the agency, breaks down the fracking operation into three other hazard areas in addition to flowback: (1) transport, rig-up, and rig-down; (2) mixing and injection; and (3) pressure pumping. Each section of the publication on hazard areas includes a comprehensive set of hazard-reduction recommendations.

For instance, the flowback section explains that fluids and materials flowing back at very high pressures from the well may contain debris such as rocks and mud, plugs and other parts, toxic chemicals, oil, water, and sand. A variety of prevention strategies to deal with these pressures and with potentially flammable atmospheres are listed. A separate section suggests ways to prevent exposure to hydrogen sulfide and volatile organic chemicals. A lengthy matrix in an appendix breaks down the job of hydraulic fracking into its multiple steps with their associated hazards.

In an introductory section, OSHA offers pre-job planning advice that includes giving workers stopwork authority if unsafe conditions or practices exist. The agency also advises that "before beginning work, personnel should receive instruction in hazard recognition and safe work practices to reduce the chance of injury on the job site." OSHA urges employers to develop injury and illness prevention programs.

Finally, a section is dedicated to worker rights, including the right to report injuries or raise safety and health concerns, along with a statement that employees have recourse to OSHA in the event of retaliation.

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