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New fed asbestos study fails to end El Dorado

By Roger Phelps, Democrat staff writer

A new federal report on asbestos in El Dorado Hills analyzes just what kind of breathable fibers and particles are likely to be released into the air next year in a spate of development projects that would crush serpentine rock.

Local public officials already have spent money on measures to limit exposure to breathable serpentine dust and fiber after U.S. Environmental Protection Agency officials in May 2005 convened community residents to warn of asbestos danger.

A new report by the U.S. Geological Survey, commissioned by the EPA, is the latest footwork in a testy dance between the EPA and a group representing construction interests, which funded a consultant's critique of EPA methods and findings for El Dorado Hills.

Something the sides agree on is that the El Dorado Hills situation is not isolated and applies to development in serpentine locales around the state, making the region something of a test case.

And as happens with much data assembled scientifically around an environmental issue, each side now claims support for its position on possible health risks is to be found in the new data. That result traces largely to the study's finding that a majority of soil samples found locally match up far from perfectly with a mining-industry definition of a harmful asbestos fiber, which definition, as one would expect, is not the only definition available of a harmful or possibly harmful sample from serpentine rock.

In another familiar environmental-issue scenario, one faction demands absolute proof of clear health risk to a sizable population before any restrictive action is taken, while opponents counsel prudence, and say it's wise and therefore permissible to act to minimize health risk if evidence points even only ambiguously toward a health hazard traceable to some clear-cut activity, such as construction.

“(Specimens from El Dorado Hills) are intermediate between what might generally be considered a population of commercial-grade asbestos particles and a population of cleavage fragments,” the USGS report concludes.

Cleavage fragments are non-fibrous dust particles.

El Dorado County Office of Education officials have been concerned with EPA warnings around air quality in the Oak Ridge High School area.

“We're really encouraged (by the USGS report),” said Vicki Barber, county superintendent of schools. “The USGS is saying, ‘You've got to differentiate (among types of serpentine particles and fibers).”

But the phrase “intermediate between” potentially lethal asbestos fibers and non-harmful cleavage fragments is just about the chief point of the USGS report, said Dan Meers, EPA branch chief in San Francisco.

Federal scientists at EPA and at Geological Survey concur that a “continuum” exists among types of asbestos and serpentine particles and fibers, Meers said.

“There's a continuum from 'asbestiform' to 'fibrous' to 'acicular' to 'prismatic' to 'cleavage fragment,’” Meers said. “These things grade into one another - in a single outcropping, they'll graduate into one another in a distance of one to two feet.”

A gravel industry consultant firm, already author of a report critical of the original EPA findings on El Dorado Hills, emphasized the same aspect of the USGS data.

“We think it for the most part confirms our evaluation of the material in El Dorado Hills,” said Drew Van Orden, senior scientist at R.J. Lee Group.

In an earlier report, R.J. Lee Group officials emphasized that European Union policies already in place appear to act in terms of a sharp dichotomy, not a continuum, where asbestos is concerned.

“The EU considers asbestos and nonasbestos amphiboles and serpentines to be different, and has conducted a major study to characterize the differences between asbestos and nonasbestos mineral particle populations - specifically for the purpose of developing procedures to discriminate between the two,” the consultant report states. “The EU has a zero tolerance for asbestos in imported products but no limit on ... serpentines.”

The problem of where to posit dichotomy and where continuum is one of longstanding in the tradition of Western science.

Dismissal of health hazard possibility from cleavage fragments rests on research such as that by Prof. E.B. Ilgren of Bryn Mawr College, according to the El Dorado County Office of Education Website posting.

“Cleavage fragmentation cannot ... generate appreciable quantities of extremely long, thin structures, so the majority of airborne cleavage fragments are not biologically relevant,” Ilgren wrote, reviewing research on laboratory animals and review of epidemiological documentation on asbestosis.

Another point of agreement among all parties to the debate, no matter who gets finally to say what the science says, concerns what to do about the situation. That consists of local officials continuing to monitor federal study data and recommendations on El Dorado Hills, with the federal government leaving it to locals for decisions on how to act on the information.

For example, the Lee Group study was commissioned by the National Stone, Sand and Gravel Association, a lobbying arm Barber said she enlisted for help in clarifying how local school districts should react to the EPA warning.

Sand and gravel association senior vice president William Ford Thursday quoted a USGS recommendation - that all parties and sectors concerned “consider a thorough evaluation of existing definitions and analytical methods, specifically for application to problems such as those in El Dorado Hills.”

Said Ford, “We're not in disagreement with that. We continue to meet with senior policy officials in the federal government and in the health community (on the future of asbestos policy).”

Meers said, “Ultimately, it's up to local officials and the community to evaluate information we have, and make some decisions on the best way to proceed.”

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