Fact Sheet

Naturally Occurring Asbestos

Prevention of Asbestos Exposure

Portions of the approximately 7 million cubic yards of material needed to be moved in order to construct the replacement Calaveras Dam contain rock formations that contain varying levels of Naturally Occurring Asbestos.

The SFPUC has implemented an extensive dust control and monitoring program that is designed to keep dust generation to a minimum while assuring that asbestos-containing dust does not leave the site at levels sufficient to pose unacceptable risks to individuals who may work, recreate, or reside in the vicinity of the site.

Comprehensive Dust Control
An important tool at our disposal is dust control. NOA fibers are a component of dust that is generated from NOA containing areas during construction. Therefore, by carefully controlling dust emissions, we can also minimize NOA leaving the site as well. Real time dust monitors on site provide an important tool for construction managers to continuously monitor the efficacy of our dust control measures. The site will be kept wet, particularly in dry weather. Trucks will be covered, their wheels washed, and any use of explosives will utilize blast blankets to keep dust emissions to a minimum.

We will also closely monitor air quality around the project site to ensure we are protecting the public and our workers at all times.

The SFPUC and a team of air quality experts are working in coordination with regulatory agencies regarding the dust control program, including: San Francisco Planning and Health Departments, State of California Regional Water Quality Control Board, Bay Area Air Quality Management District (BAAQMD), and the California Occupational Safety and Health Administration (Cal/OSHA).

Background Air Monitoring
In order to establish the natural, background air quality in the area prior to construction, the SFPUC has been taking air quality samples from 14 stations for two and a half years. The results of this background data show that airborne asbestos was detected intermittently at all monitoring stations. Levels ranged from non-detectable to .0164 structures per cubic centimeter. These results indicate that the levels detected are typical of background levels of asbestos found near serpentine rock formations. These levels indicated the low level presence of airborne asbestos fibers prior to any construction activity on the project.

continued next page

Prevention Asbestos Exposure (continued)

Trigger Levels for Construction Monitoring
We have established a system for monitoring air quality in concentric layers, beginning with samples collected in worker breathing zones and moving outward to samples collected in each construction area, at the perimeter of the project, and at locations throughout the Sunol Valley (ambient stations). The latter two are designed as "sentinel" stations sited to detect any potentially unacceptable concentrations of fugitive NOA from the project.

We have been working with industry experts to establish trigger levels for perimeter stations. Should levels of naturally occurring asbestos detected at these perimeter air monitoring stations exceed these trigger levels, we will modify our construction activities. If monitoring data exceeds the trigger levels, then we will be required to implement enhanced dust control measures, including if necessary, slowing down or stopping construction activities.

These trigger levels are extremely conservative. If it were possible for a person to be exposed to trigger levels at our perimeter stations constantly – 24 hours a day, seven days a week for the period of construction – four solid years, this person would have a 1 in 100,000 risk of contracting cancer as a result of this exposure. Since this scenario is not possible, we believe our trigger levels are extremely protective of public health.

Weather and wind monitoring
We have installed a meteorological monitoring station at the construction site to provide continuous data including wind speed and direction. These data allow the SFPUC to assess local weather conditions, including wind patterns and determine how best to proceed with construction activities in a manner that minimizes potential dust generation

Project Summary

The SFPUC is rebuilding Calaveras Dam, our largest local Bay Area drinking water reservoir. The existing earth fill dam is located near the active Calaveras earthquake fault. We lowered water levels in the reservoir in response to seismic concerns in 2001. The project consists of building a new zoned earth and rock fill dam immediately downstream of the existing dam. The replacement dam will have a structural height of 220-feet and is designed to accommodate a maximum credible earthquake on the Calaveras fault. The dam will have a crest length of 1,210 feet, a base thickness of 1,180 feet, and crest thickness of 80 feet. The total volume of the dam will be approximately 3.5 million cubic yards. The replacement dam will restore the original reservoir capacity of 96,850 acre-feet, or 31 billion gallons of water.

For More Information:
24 hour-Answer Line 866-973-1476

Email us:
mle@sfwater.org
blauppe@sfwater.org

Follow us online at:
Sfwater.org/sunolvalley