NEWS

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SCAQMD Answers Call to Lend Air Monitors to Hawaii's Big Island

The South Coast Air Quality Management District has sent six air monitors to Hawaii's State Department of Health to enhance the monitoring of sulfur dioxide, hydrogen sulfide, and fine particulate matter emissions from ongoing lava flows on the southeast side of the Big Island. SCAQMD's monitors were added to a network surrounding the affected areas to help local officials determine whether evacuation orders should be issued, schools should close, or residents should be prepared for severe air pollution.

"Our equipment will be used to help protect public health and safety," said Wayne Nastri, SCAQMD's executive officer. "I am proud we are able to provide this assistance to residents of the Big Island."

The U.S. Environmental Protection Agency asked several air districts throughout California to loan air monitors to Hawaii health officials. SCAQMD answered the call by offering to lend a total of six monitors capable of measuring concentrations of sulfur dioxide (SO₂), hydrogen sulfide (H₂S), and fine particulate matter (PM2.5). In the South Coast Air basin, these types of monitors have been used to detect potential H₂S emissions from the Salton Sea and Aliso Canyon, H₂S and SO₂ emissions from oil refineries, and PM2.5 emissions from a variety of natural and manmade sources.

H₂S is a colorless, flammable gas with a strong rotten egg-type offensive odor. At very high levels, H₂S becomes odorless and can irritate the upper respiratory tract and, during long exposure, cause pulmonary edema.

SO₂ is a colorless gas with a pungent odor that irritates the skin and the tissues and mucous membranes of the eyes, nose, and throat. SO₂ emissions can cause acid rain and air pollution downwind of a volcano. At the Kīlauea volcano on the Big Island, high concentrations of SO₂ produce volcanic smog, also known as "vog." People with pre-existing respiratory conditions are more prone to adverse effects of vog, which may include headaches, breathing difficulties, increased susceptibility to respiratory ailments, watery eyes, and sore throat.

Fine particulate matter, or PM2.5, is a main component of smoke. These particles are small enough to go deep into the lungs and enter the bloodstream. Breathing high levels of fine

particulate matter can cause or worsen heart and lung problems. Older adults, pregnant women, young children, and people with heart or lung diseases may be more sensitive to the effects of smoke.

"SCAQMD is a world leader in air quality monitoring and we are pleased to assist Hawaii with our expertise and equipment," Nastri said.

SCAQMD is the air pollution control agency for Orange County and major portions of Los Angeles, San Bernardino and Riverside counties.