

Case Study

Premium Remediation Monitoring System Protects Communities, Ensures Compliance During SoCal Industrial Redevelopment

International environmental engineering firm, SCS Engineers, used the Dust Sentry to comply with SCAQMD Rule 1466 at their clients' remediation site in LA.



Project

SCS Engineers

Services

2 x Dust Sentry

Location

Los Angeles, California, USA

Measurements

PM₁₀

Date

2018

Sector

Remediation



Remediation monitoring protects communities, ensures compliance in southern california

A top-rated international environmental engineering firm deployed an all-in-one remediation monitoring system to safeguard citizens during the large-scale redevelopment of a former industrial manufacturing site in Los Angeles. One of only [three remediation monitors pre-approved](#) by the South Coast Air Quality Management District (SCAQMD), the Aeroqual Dust Sentry exceeded all regulatory requirements, collecting data in real-time and minimizing fugitive dust emissions. Cloud capability enabled remote monitoring, reducing time spent on-site, and producing defensible data to put the surrounding community at ease.

Strict regulations call for purpose-built remediation monitoring

SCS Engineers, specialists in helping clients reduce the risks associated with remediation, were asked to design an environmental monitoring plan that met strict local requirements for a new industrial development in Los Angeles. Their client is one of the largest developers of industrial real estate in the United States, with a portfolio including millions of square feet of industrial warehouse space across dozens of markets. This client wanted to redevelop a former industrial manufacturing site in the Los Angeles area into a world-class industrial park. If not monitored correctly, the process of converting environmentally impacted land can cause significant health risks for surrounding communities.

“We found the Dust Sentry system reduced a lot of leg work associated with traditional air monitoring activities.”

Ray Huff
SCS Vice-President

This particular site posed an increased risk level, having been used for manufacturing for approximately 70 years. Previous operations included plating, degreasing, heat-treating, oil quenching, metal machining, painting, and metal treating. Several sumps and pits were identified as being contaminated with hazardous chemicals used in association with these activities, including heavy metals, volatile organic compounds (VOC), and total petroleum hydrocarbons (TPH). To ensure community safety, The California Department of Toxic Substances Control (DTSC) provided regulatory oversight under the Brownfields Cleanup Program.

All remediation activities in Southern California require compliance with [SCAQMD Rule 1466](#), designed to minimize fugitive dust emissions from earth-moving activities at sites containing specific toxic air contaminants. Under [Rule 1466](#), when contaminated earth-moving activities or vehicular movement in contaminated areas occurs, the owner/operator must conduct continuous direct-reading. Remediation sites must be monitored in real-time, tracking concentrations of PM₁₀ at upwind and downwind locations using a federal equivalent method or an Executive Officer-approved method.

Given the approved remediation program was to include excavation of soils impacted with VOCs, metals, and TPH and disposal at offsite permitted landfills, an appropriately robust monitoring system was required.



Real-time data helps safeguard local communities

SCS Vice-President, Ray Huff, investigated several air monitoring options before deciding on the Aeroqual Dust Sentry PM₁₀ system. With over 27 years of environmental consulting experience, assisting clients with air quality compliance for hazardous substance site investigations, remediation sites, and GHG/air regulatory compliance projects, Ray knew exactly what was needed. He selected the Dust Sentry system because it not only met the requirements of SCAQMD Rule 1466; it exceeded them.



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Aeroqual also offers a unique site apportionment app for consulting and compliance purposes. This innovative software tool calculates the difference between upwind and downwind data on a site and reports the real-time PM₁₀ site activity contribution, saving plenty of man-hours. Data can be exported for reporting, with real-time values used to trigger an SMS or email alert. If an exceedance occurs, the system sends an automatic alert to the site manager, prompting immediate dust control measures.

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SCS Engineers installed two Dust Sentry PM₁₀ monitors, along with a wind sensor integrated with one monitor on the wind perimeter for plotting dust rose charts. A Hi-Vol sampler was co-located to collect particulate samples for composition analysis by an offsite laboratory. Since the monitoring program was designed to run on a short-term basis, small generators were used to power the instruments during site work hours.

“We were pleasantly surprised at how easy it was to connect to the Dust Sentry Wi-Fi hotspot with a smartphone and get real-time data and alerts on-site,” says Mr. Huff.

“Once we set up the modems and Aeroqual Cloud, we were able to remotely monitor the site from our office in Long Beach. The software tools available with the instrument and cloud platform are impressive. We found the Dust Sentry system reduced a lot of leg work associated with traditional air monitoring activities. In the future, we will definitely specify Aeroqual air monitoring technology for our upcoming projects.”

Aeroqual’s purpose-built remediation technology played an important role in exceeding all regulatory requirements while protecting civilians and controlling fugitive emissions. For more on remediation, [visit our blog](#).

About



SCS Engineers

SCS Engineers is an international environmental engineering firm and a top-rated performer in environmental consulting services. They have been rated the number one solid waste engineering company in the United States by Engineering News Record a total of seven times. Among other services, SCS helps its clients reduce the risks associated with converting environmentally impacted land into developable properties.



Aeroqual

Aeroqual develops integrated monitoring and software systems underpinned by industry-leading sensor technology to support environmental, health, and safety professionals in protecting people and the planet from the impact of air pollution. That’s why governments, industry, researchers, and consultants trust Aeroqual to deliver actionable data for their air quality monitoring projects.