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Case Study

Real-Time Monitoring Protects Communities During Reclamation Project on Nation's Largest Municipal Utility

A global consulting firm used integrated weather, noise, vibration, and particulate matter monitoring to protect communities and ensure regulatory compliance during demolition and reclamation work on the United States' largest municipal utility – serving power and water to the City of Los Angeles.

Project
Los Angeles Department of Water and Power (LADWP)

Location
Long Beach, California, USA

Date
2019

Services
4 x Dust Sentry

Measurements
PM_{10}, Noise, Weather, Telemetry (co-located with vibration sensors)

Sector
Remediation

Real-time monitoring empowers angelenos, protects communities during reclamation project on nation's largest municipal utility

A global consulting firm used integrated weather, noise, vibration, and particulate matter monitoring to protect communities and ensure regulatory compliance during demolition and reclamation work on the United States' largest municipal utility – serving power and water to the City of Los Angeles. A cloudbased data management solution enabled the client and key stakeholders to evaluate data in real-time, providing instant notifications if environmental factors exceeded agreed-upon limits. Email alerts facilitated swift action, triggering mitigation procedures to minimize the potential impact on surrounding communities.

Aeroqual Limited

T: +64 9 623 3013 E: sales@aeroqual.com W: aeroqual.com

Clearing the way for los angeles' clean energy future

TRC Companies, Inc., a global consulting firm for the oil and gas, power, environmental, and infrastructure markets, was engaged by the Los Angeles Department of Water and Power (LADWP) to remove four decommissioned generating units at the Haynes Generating Station in Long Beach, California. Before commencing work, TRC conducted an environmental monitoring program to minimize the potential impact of this project on the local community.

LADWP is the nation's largest municipal utility, with a 7,880 megawatt (MW) electric capacity and serving an average of 438 million gallons of water per day to the four million residents of the City of Los Angeles. Costing $104m, this reclamation project included the demolition of natural gas boilers and steam turbine generators built in the 1960s and the removal of six 240-foot stacks. Once cleared, the site will be used for energy storage solutions and other clean grid initiatives.The project will support LADWP's Clean Grid LA initiative, which calls for achieving 100 percent renewables by 2045 and a carbon-neutral power portfolio by 2050.

As part of this reclamation, TRC was to undertake asbestos abatement, industrial cleaning, environmental remediation, building construction, site restoration, and environmental and community mitigation. These site works were deemed to have a potential environmental impact on the surrounding community, and perimeter monitoring for dust, noise, and vibration was requested by LADWP.

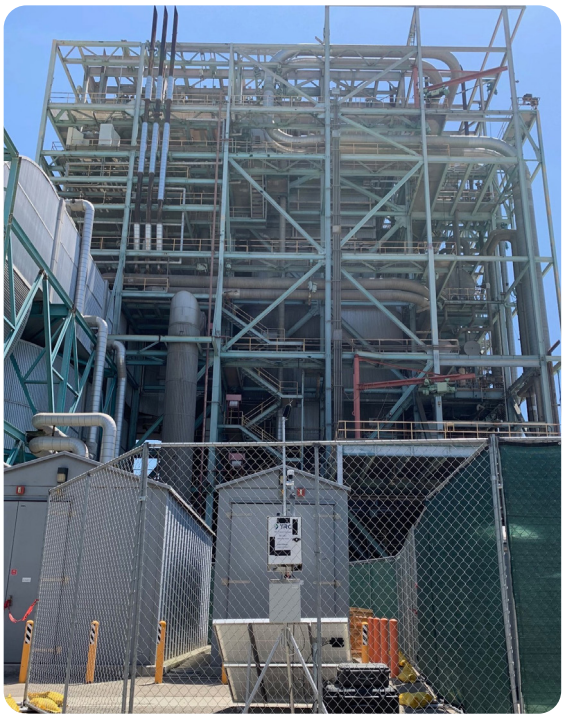
Remote monitoring solution meets all regulatory requirements

TRC knew they required a flexible air monitoring solution that collected actionable data in real-time. David Lennon, TRC Project Manager, investigated several monitoring options before choosing the Aeroqual Dust Sentry PM_{10} monitor. The Dust Sentry allowed TRC to remotely monitor site activities using Aeroqual's cloud-based data management solution, reducing the need for on-site visits, saving valuable time and money.

> **"When we saw the level of technological sophistication that Aeroqual and Specto would bring to the project, they were the obvious choice for TRC to partner with."**
>
> **David Lennon**
> TRC Vice President

Working with our specialist integration partner Specto Technology, TRC located four Dust Sentry systems on each boundary of the site, as required by law. Each system was equipped with four integrated Class 1 sound level meters and a weather station. Specto Technology also provided TRC with vibration monitoring equipment and a complete solar power solution, meeting all the requirements of the Site Monitoring Plan.

The integration of a weather station to the monitoring system allowed for real-time calculation of source contribution for comparison with dust action levels using custom software designed by Specto Technology. This allowed for a more accurate, nuanced approach to mitigation procedures, accounting for the effect of environmental conditions on PM_{10} levels.



TRC run four portable Dust Sentry PM_{10} systems with integrated solar power, telemetry, noise, weather, and co-located vibration sensors.

Real-time alerts facilitate fast corrective action

TRC was able to provide real-time data to key stakeholders using a shared site dashboard. Air, noise, weather, and vibration data was sent from Aeroqual Cloud to the eagle.io data management software for all to evaluate. The actionable data received from the monitoring network allowed TRC to notify LADWP if the criteria were exceeded and to undertake mitigation actions to minimize the potential off-site impacts of fugitive dust, noise, and vibration during demolition activities. Email alerts were configured to allow TRC to adjust control protocols as required.

TRC was very satisfied with the solution. David Lennon says, "When we saw the level of technological sophistication that Aeroqual and Specto would bring to the project, they were the obvious choice for TRC to partner with for a critical component of the project's success. Setup and installation were hassle-free, and the real-time, web-based access to the data has set a new standard on these types of projects."

About

TRC Companies, Inc.

TRC Companies, Inc. is a global consulting firm with over 5,000 staff in 140 offices across the US, Canada, UK, and China. The company is a leader in providing end-to-end engineering, consulting, and construction management solutions fuelled by innovative technology for the oil and gas, power, environmental and infrastructure markets. TRC is ranked #19 on ENR's list of the Top 500 Design Firms in the United States.

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.