Curtis Speciality Paper Superfund Site

Project

Curtis Specialty Paper Superfund Site
Milford, NJ, USA (EPA Region 2)

Application

Site Remediation

Scope

Real-time monitoring of dust and VOC vapors caused by demolition activities and excavation of contaminated soil. Compliance reporting and mitigation controls.

Equipment and services

2x Aeroqual AQS 1 monitors
Aeroqual Cloud software

PM_{10}, $PM_{2.5}$, VOCs

Client

International Paper Company
Georgia-Pacific Consumer Products

Consultants

Arcadis US Inc.

Date

2019 - 2020

Project cost

$1.3 million

Aeroqual won the air monitoring technology challenge conducted by Arcadis US Inc., the Supervising Contractor on the Curtis Specialty Paper Superfund Site in Milford, New Jersey. The 86-acre former paper mill site was contaminated with polychlorinated biphenyls (PCBs) in the soil and volatile organic compounds (VOCs) in the groundwater. In 2009, the EPA included the site in the National Priorities List of the Superfund program.

Project challenges

The cleanup activities involved removing storage tanks, disposing of hazardous chemicals, demolishing four large smokestacks and over 70 buildings, and extracting 10,500 yards of contaminated soil. Since PCBs can harm the immune, reproductive, nervous, and endocrine systems and are potentially carcinogenic, monitoring and controlling fugitive dust and vapor emissions played a vital role in the cleanup process.

Arcadis conducted extensive air quality measurements and compared perimeter air monitoring systems from three providers. The challenge evaluated data accuracy, system reliability, ease of deployment, and productivity tools offered by the software. Aeroqual AQS 1 air monitors were deployed in the trial to measure particulates (PM_{10} and $PM_{2.5}$) and VOCs in real-time. Aeroqual Cloud captured air quality data and provided alert functions, which Arcadis project managers could use to generate reports and journal exceedances and make informed decisions about implementing emission controls and suppression.

Project outcome

The robust approach to air monitoring, dust control, and suppression measures enabled Arcadis to comply with NJ DEP regulations and protect workers and public health during remedial activities. The Aeroqual system exceeded expectations for reducing risk and cost of compliance and was declared the challenge winner. Arcadis has confidently switched to using Aeroqual solutions for other Superfund site projects and Brownfield Cleanup Programs.

> "The monitors and software are reliable, easy to relocate, and use modern data tools for decision-making on-site and remotely. Aeroqual is the new standard on these outdoor perimeter air monitoring projects."
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> **Kevin Held**
> **Senior Scientist, Arcadis US, Inc.**