



Project

Port Hope Area Initiative (PHAI)
Ontario, Canada

Application

Site Remediation

Scope

Continuous, real-time monitoring of dust generation from worksite operations and downwind and upwind of the site perimeter.



Equipment and services

50x Aeroqual Dust Sentry
Aeroqual Cloud software

Total Suspended Particulate (TSP), PM₁₀, PM_{2.5}

Client

Canadian Nuclear Laboratories

Consultants

WSP Global Inc.

Supplier

Specto Technology

Date

2018 - Ongoing

Project cost

CAD 2.6 billion

Air monitoring at Canada's largest remediation project

Aeroqual, alongside WSP Global, the world's leading environmental consulting firm, is proud to be part of the Port Hope Area Initiative (PHAI) for Canadian Nuclear Laboratories (CNL). This community initiative is the government's response to the request for the cleanup and local, long-term, safe management of 1.7 million cubic meters of historic low-level radioactive waste from over 1,000 properties in Port Hope and Clarington. The community's voice has been instrumental in shaping this project, the largest environmental remediation effort in Canadian history.

Project challenges

One of the community's main concerns was air quality during the excavation and transportation of the waste. Historically, moving waste around the region has spread contamination and sparked concerns about inhaling radioactive dust.

To alleviate concerns, CNL and WSP adopted Aeroqual's solution for continuous real-time monitoring of dust generated from site operations and downwind and upwind of the site perimeter. Under the PHAI dust management plan, data collected by Aeroqual Cloud is checked against control and action levels. Alert triggers inform contractors if levels are elevated so that measures are taken to control and reduce dust. The PHAI website also publishes daily air quality reports. About 50 Aeroqual air monitors are currently deployed at PHAI sites, many of which are solar-powered.

Project outcome

The Aeroqual solution has reliably provided accurate and actionable data to WSP and site contractors for informed reporting and decision-making. CNL's environmental protection measures have adequately protected the environment and public health with negligible risks from radiological and hazardous releases. Site monitoring will continue well into the future. The PHAI will generate many environmental and socio-economic benefits for the host communities, surrounding regions, and beyond.

"The Aeroqual monitors and software are integral to the environmental monitoring program. The system's overall reliability and adaptability are a critical advantage in maintaining compliance with the client's and project's environmental objectives."

Eli Thompson
Operations Manager, WSP E&I Canada