



BOUNDARY MONITORING: REDUCE DISTURBANCE, IMPROVE ENVIRONMENTAL RISKS

How can construction work harm public health and damage the surrounding environment? Construction dust can compromise air quality, environmental noise pollution can be harmful to workers and the general public, and vibration can cause damage and a general nuisance to nearby property.

Environmental monitoring of these factors and protecting against potentially dangerous conditions can be difficult to manage without reliable data streams and monitoring of a site perimeter that gathers the environmental data. For this reason, more and more companies are turning to boundary monitoring technology to measure the level of risk and make sure they adhere to environmental limits and guidelines, while also protecting against health hazards.

What is boundary monitoring?

Boundary monitoring refers to the use of dedicated systems that monitor noise, dust, vibration and for short-term detection of harmful contaminants in the soil around a worksite, to ensure that construction companies are complying with all applicable limits at work. Boundary monitoring systems are typically deployed across construction and demolition projects, environmental remediation sites, mining and quarrying, waste transfer, heavy road traffic and other places where compliance-related monitoring is required.

Real-time air quality monitoring systems are designed as a cost-effective alternative to having on-site experts conduct manual monitoring. These solutions require little upkeep or maintenance while continually measuring conditions on or around a worksite and are designed for easy setup and use.

Why conduct boundary monitoring?

Perimeter air monitoring and noise measurement is an important component of a construction worksite, helping companies to

remain compliant with control measures required for them to carry out the project. Ultimately, boundary monitoring could help protect the reputation and revenues of construction companies and other industrial firms. If complaints arise, responsible companies using boundary monitoring have proof points to show they have been diligent with their monitoring in operations and abiding by operational requirements. Data evidence from a boundary monitoring system is also helpful if a worksite is accused for issues caused by another operation, allowing site managers to respond rapidly, minimising reputational damage. Email and text alerts can also be set up to alerts when noise, dust or vibration levels are above prescribed levels, allowing preventative action to be taken before complaints arise. This allows construction sites to help maintain good relationships with their neighbours.

Environmental risks and health implications

Heavy industrial production was once a driving force for the nation's economy but now many of these former industrial sites are under redevelopment and this poses a major hazard for new construction operations. The remediation of contaminated land sites can prove to be a challenging undertaking; however, effective boundary monitoring solutions can help to mitigate environmental issues during construction by the effective measurement of toxic compound exposure.

An environmental monitor should be used for the short-term detection of emissions from site related chemicals. The early detection of these emissions will help site management in

mitigating and reducing the mission exposure to surrounding communities in accordance with regulatory and guideline limits.

An effective monitor solution, like the Casella Guardian2, is fixed with a photoionization detector (PID) that measures for Volatile Organic Compounds (VOCs) up to 6,000 ppm (parts per million), assessing the emission limits and air quality of an area. VOCs are organic chemicals known for harmful properties that leak into the ground leaving the top soil of the land previously polluted by the site's occupants. The levels need to be assessed and continually monitored to ensure the site is safe for operation, and to safeguard the health of the workforce and surrounding area. Not only is exposure to VOCs harmful to the environment, but these emissions can also lead to lasting health implications, therefore VOC monitoring is often required.

Casella demonstrates its commitment to reducing environmental risks with the new Guardian2 site boundary monitor, designed to help companies remain compliant with emission levels, using remote monitoring and reporting of noise, dust and vibration levels.

The small, lightweight solution is easy to transport, install and is cost effective. Reporting is made easy with the Guardian2 with the ability to readily produce reports for site dust or noise compliance purposes that can be sent to multiple users.

Casella is dedicated to reducing occupational health and environmental risks, and supporting businesses in solving their monitoring and analysis needs. For more information about the Casella Guardian2 visit, www.casellasolutions.com

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