Monitoring Particulate Emissions at Quarrying Site for Granite Construction

Our Client

Granite Construction is a renowned construction and civil engineering leader, known for its large-scale infrastructure projects and commitment to sustainability. Headquartered in Salt Lake City, Utah, the company operates a bustling quarry, which plays a vital role in supplying raw materials for construction. Granite's core business lies in heavy civil construction, undertaking projects such as highways, bridges, tunnels, airports, dams, and transit facilities.

The Challenge

Operating a quarry comes with inherent challenges, particularly in managing particulate emissions. The dust generated during quarrying activities raised concerns among them, and they also received some complaints from nearby communities about poor air quality. When the situation started to become critical, the company sought intervention to address the issue. In addition to community concerns, regulatory compliance for air quality monitoring became a key challenge, as Granite Construction needed to ensure that its operations met local environmental standards. The company required a solution that would provide accurate and reliable dust data and be easy to implement and maintain.

The Solution

Granite Construction installed Dustroid, MCERTS-certified dust monitoring systems at strategic locations within the quarry to address these challenges. Dustroid, known for its precision and robustness, is designed to measure particulate matter (PM1, PM2.5, PM10, and PM100) with high accuracy, even in harsh industrial environments. The device's plug-and-play functionality allowed the company to deploy it seamlessly, minimizing downtime and operational disruption.

They also chose the Overview and Dashboard modules of Envizom software, which offers a comprehensive platform for real-time data visualization and analysis. The dashboard provided intuitive insights into dust levels, enabling the authorities to monitor air quality continuously. Automated alerts from the system allowed the team to act rapidly when particulate levels exceeded acceptable thresholds, ensuring that the issue was addressed promptly.

INSTALLATION DETAILS

3 Units of Dustroid

The Result

The Dustroid's advanced monitoring capabilities enabled the company to gather accurate and actionable data about dust levels in real-time. With this data, Granite Construction is able to identify the primary sources of dust emissions and implement targeted measures to mitigate their impact. The company achieved compliance with regulatory standards for air quality monitoring, demonstrating its commitment to environmental responsibility and building stronger community relations. The plug-and-play hardware required minimal maintenance, while the intuitive software dashboard simplified the monitoring process. This allowed the team to focus on taking proactive steps to reduce dust emissions rather than spending time managing complex equipment. The integration of hardware devices with the Envizom platform enabled authorities to monitor and interpret the data effortlessly.

Oizom is a company specializing in environmental monitoring solutions. They offer products to monitor air quality, weather conditions, and other environmental factors. Utilizing advanced sensor technology and data analytics, Oizom aims to provide actionable insights for construction, industrial compliance, and community awareness. Their solutions can be applied in various sectors including government, industries, and community initiatives.