

# Greenland Waste Management Installed Oizom's Polludrone for Air Quality Monitoring at Jharkhand Waste-Burning Site



## **INTRODUCTION: Transforming Waste Management with Reliable Monitoring in Jharkhand**

Greenland Waste Management, a trusted leader in efficient, sustainable waste management technologies and services, operates a key waste-burning site in Jharkhand to support regional waste reduction and resource recovery goals. The facility handles significant volumes of mixed waste, requiring carefully controlled burning processes that can release particulate matter and gaseous pollutants into the surrounding environment.

Situated near local communities and subject to strict emission regulations, the site must comply continuously while maintaining stakeholder trust in its commitment to sustainability. Additionally, the extreme waste-burning environment, with variable loads and weather conditions, demands a robust, reliable, and continuous monitoring solution to verify air quality. To meet these requirements, Greenland Waste Management selected Oizom's Polludrone Custom, a comprehensive air quality monitoring system, to deliver real-time, high-accuracy data, integrate seamlessly with their operations, and support data-driven environmental reporting.



## ***THE CHALLENGE: Harsh Waste-Burning Environment With Various Pollutant Emissions***

Operating a waste-burning site comes with significant challenges, especially with increasingly strict rules around emissions. Greenland Waste Management faced the challenges in proving to regulators and nearby communities that their waste treatment processes were not harming the environment or public health. They faced challenges like:

- 1. Regulatory Pressures:** Greenland Waste Management had to meet stringent waste-burning emission rules in Jharkhand, requiring proof that its waste-burning operations did not harm air quality or violate environmental standards.
- 2. Community Concerns:** Nearby residents worried about toxic pollutants from the burning site, making it essential to monitor and share transparent air quality data to build public trust and address local fears.
- 3. Lack of Continuous Data:** Traditional methods failed to deliver continuous, real-time monitoring of PM and gases, risking gaps in data that could undermine their ability to defend their operations to regulators or stakeholders.
- 4. Multi-parameter monitoring:** They needed to monitor not only particulate matter (PM) but also gases such as CO, CO<sub>2</sub>, NO, NO<sub>2</sub>, and NH<sub>3</sub>, along with weather parameters.
- 5. Operational Uncertainty:** Without reliable, continuous data, they struggled to confidently validate their waste treatment processes, exposing them to compliance penalties and operational risks.

With growing community concerns and the need for regulatory compliance, Greenland Waste Management recognized that only accurate, continuous, and reliable data could help them demonstrate safe operations and maintain their license to operate.

## ***THE SOLUTION: Oizom's Polludrone Custom for Comprehensive Air Quality Assurance***

To address these challenges, Greenland Waste Management selected Oizom's Polludrone Custom, a robust continuous air quality monitoring system specifically designed to measure emissions in harsh waste-burning environments. The solution included:

- 1. Multi-Parameter Monitoring:** Polludrone Custom is equipped to measure PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, PM<sub>100</sub>, CO, CO<sub>2</sub>, NO, NO<sub>2</sub>, NH<sub>3</sub>, temperature, humidity, and pressure, providing a holistic understanding of air quality at the waste-burning site.
- 2. Precision Sensors for Compliance:** Advanced sensors ensure high-accuracy measurement, supporting reliable data for compliance reports to satisfy environmental authorities.
- 3. Real-Time Data Insights:** Envizom software offers live



dashboards, instant alerts, and historical trend visualizations, enabling operators to track emissions around the clock.

- 4. Automated Reporting & Analytics:** With Envizom's reporting tools, they can quickly generate evidence-based compliance reports, helping maintain transparency with regulatory agencies and local communities.
- 5. Remote Access & SCADA Integration:** The Polludrone system integrates seamlessly with SCADA and other industrial automation systems, enabling Greenland Waste Management to trigger automated responses to reduce emissions.
- 6. Rugged & Reliable Build:** Designed for industrial and outdoor use, the Polludrone ensures long-term, uninterrupted monitoring in challenging conditions near the waste-burning site, even during variable weather and dust-heavy operations.

Paired with the Envizom software, site authorities could remotely visualize, analyze, and store data with powerful dashboards and automated reports. This data-driven approach offered them actionable insights to showcase compliance, while the user-friendly interface ensured effortless tracking of air quality conditions around the plant.

### ***THE TRANSFORMATION: Data-Driven Management and Stakeholder Trust***

After deploying Oizom's solution, Greenland Waste Management experienced significant benefits:

- 1. Regulatory Assurance:** They now demonstrate compliance confidently, backed by defensible data, reducing the risk of penalties, investigations, or disputes with environmental authorities.
- 2. Community Trust Building:** Sharing transparent, real-time air quality data reassured nearby communities, helping them gain public confidence and a stronger social license to operate.
- 3. Operational Efficiency Gains:** Data-driven insights enabled process optimization in waste burning, minimizing emissions, and maximizing resource efficiency, contributing to a more sustainable workflow.
- 4. Simplified Reporting:** Envizom's automated reports and easy-to-use dashboards simplified audits and environmental reporting, saving time and effort for the Greenland Waste Management team.
- 5. Future-Ready Strategy:** With a continuous monitoring framework in place, they can now scale confidently, knowing they have robust environmental safeguards to support sustainable waste management into the future.

### ***BROADER IMPACT: Supporting a Sustainable Waste Ecosystem***

Greenland Waste Management's proactive approach, supported by the Polludrone Custom, directly contributes to reducing the burden on landfills, conserving resources, and saving energy through responsible waste management. Their investment in reliable air quality monitoring helps advance the broader mission of sustainability by prioritizing human health, protecting the environment, and meeting the expectations of both regulators and communities.

## ***CONCLUSION: Empowering Cleaner Waste Treatment with Smart Air Quality Monitoring***

Squarefeet Group's collaboration with Oizom is a strong example of how smart infrastructure and real-time environmental monitoring can go hand-in-hand. With big construction projects underway, this partnership ensures that air quality does not become a barrier to progress.

By choosing Oizom's certified and scalable solutions, Squarefeet has taken a step toward responsible urban development, where innovation, data, and sustainability come together to create real impact.

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.