

# Monitoring H<sub>2</sub>S in real-time at Johanna Foods to Identify Odour and Mitigate Pollution

## *Our Client*

Johanna Foods is a leading food manufacturer located in Flemington, New Jersey. They are committed to providing high-quality products while maintaining responsible environmental practices. It operates a wastewater treatment plant at its facility in Flemington, New Jersey. This plant is designed to treat the wastewater generated by the company's food manufacturing processes, including the production of yogurt, juice, and other beverages.



## *The Challenge*

Johanna Foods' wastewater treatment plant uses a combination of biological and chemical processes to remove pollutants from the wastewater before it is discharged into the local sewer system. They received complaints from the local community surrounding their wastewater treatment plant, including odour issues and air pollution violations. This raised concerns about their environmental impact and the well-being of nearby communities. To address this issue, they needed a reliable system to monitor air quality and identify potential odour sources.

### The Solution

To help them address and resolve the issues, they installed Oizom's Odosense and AQBot, an odour and air quality monitoring solution to monitor various odourous parameters. The devices were selected for cutting-edge technology to detect and measure various odour compounds. The Odosense device was installed near the lagoon at the wastewater treatment plant to monitor SO<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, CH<sub>3</sub>SH, TVOC, CH<sub>2</sub>O, NO<sub>2</sub>, and CL<sub>2</sub>, along with temperature. AQBot was strategically installed at the exhaust of the carbon systems, which specifically monitor hydrogen sulfide (H<sub>2</sub>S), a common odourous gas associated with wastewater treatment processes. It has an in-built display, allowing plant authorities and workers to monitor air quality data continuously.



#### Installation Details

1 Unit of Odosense &  
2 Units of AQBot H2S

### The Result

By installing Oizom's Odosense and AQBot, Johanna Foods continuously monitors and identifies odour sources in real-time. This data allows them to take targeted actions to minimize odour emissions. Utilizing Odosense data, they optimized their wastewater treatment processes with real-time air quality data to minimize odour generation. This resulted in a significant reduction in odour complaints from the surrounding community. The instant alert with siren and strobe light of the AQBot system provides an added layer of safety, ensuring that workers and management are promptly notified of any potential hazards, allowing for quick action to mitigate risks and maintain a safe working environment.

Oizom's Envizom played a crucial role in this project. It provided the collected air quality data in user-friendly dashboards with graphs and charts, allowing for easy identification of the root causes of odour emission. It sends daily/weekly/monthly H<sub>2</sub>S reports to the admins. It also provides real-time alerts via email or SMS when odour concentrations exceed predetermined thresholds. This enabled Johanna Foods to take prompt corrective actions and protect the environment.

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.