

A large industrial paper mill machine with a massive roll of paper being processed. The machine is yellow and blue, with a large roll of paper being unspooled. The background shows the factory floor and ceiling with lights.

UK PAPER MILL CUTS DOWNTIME BY 90% USING AIRBORNE CORROSION MONITORS

Industry: Paper Production

Customer

Multinational paper company
in Manchester, UK



The Challenge

The corrosion of circuit boards often goes undetected in pulp and paper mills, and the failure of these critical electronics can lead to unplanned shutdowns of the entire production line. The root cause of this corrosion comes from airborne contaminants and high levels of moisture.

A multinational paper company faced challenges of unexpected downtime at their cardboard paper mill due to electronic corrosion in the switch room. The mill utilized coupons to monitor for corrosion at the time, but found this method didn't allow them to stay ahead of the failures. These failures caused them to experience downtime of up to 3 days, which cost them hundreds of thousands of dollars in production loss.

The Solution

Cosasco's airborne corrosion monitors were installed at five switch rooms within the mill. The system monitored corrosion rates of copper and silver and G levels based on the ISA71.04-2013 standard. The data, along with 3 environmental parameters, were communicated in real-time to the control room. After a few months of monitoring, the system showed GX level, which depicts an environment where failure of electronics is likely due to corrosion. With real-time data, the facility was able to narrow down the causes of electronic failures.

The Results

90%

of unplanned downtime at the mill was minimized leading to the facility being ahead of any possible issues.

As a result of the monitoring implementation, the mill was able to minimize unplanned downtime while reducing the duration of planned downtime by 90%. Now, their facility has been ahead of issues with real-time corrosion data. Cosasco’s airborne corrosion monitor enabled the mill to make proactive, data-driven decisions to maintain production uptime and provide consistent service to their customers.

“Having actual data to be able to make decisions is so important for us, allowing the team to stay ahead of downtime.” - Sr. Electronics Engineer

Next-Generation Airborne Corrosion Monitoring

Since the successful implementation of the airborne corrosion monitoring system at the paper mill, our team at Cosasco has continued driving innovation with this technology. We’ve now launched our next-generation airborne system, AirIQ, which provides real-time corrosion measurement of copper and silver based on the ANSI/ISA71.04-2013 standard. Online monitoring of electronic corrosion provides operators data to proactively protect their equipment from corrosion with the direct measurement of the impacts of the environment on electrical circuit boards, regardless of the cause.



Case Study Snapshot

Customer	Multinational paper company in Manchester, UK
Challenge	The company was facing unexpected downtime because of electronic corrosion in their switch room due to lack of airborne corrosion monitoring.
Result	Unexpected downtime is reduced by 90% after the installation of an airborne corrosion monitor by Cosasco.

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