



REMOTE CONDITION MONITORING REDUCES RISK ON CRITICAL FUEL HANDLING CRANES

A leading waste-to-energy operator relies on fuel handling cranes to continuously feed household waste into its incineration process. If a crane becomes unavailable, the waste feed can be interrupted, combustion can become unstable and plant throughput may need to be reduced or stopped.

Routine condition monitoring was also difficult to carry out safely. The crane area can contain harmful gases, high humidity, excessive dust and untreated waste, while the movement of the cranes makes manual data collection more challenging. Access requires specialist PPE, so the customer needed a way to maintain visibility of asset condition without relying on frequent physical entry into the area.

OUR SOLUTION

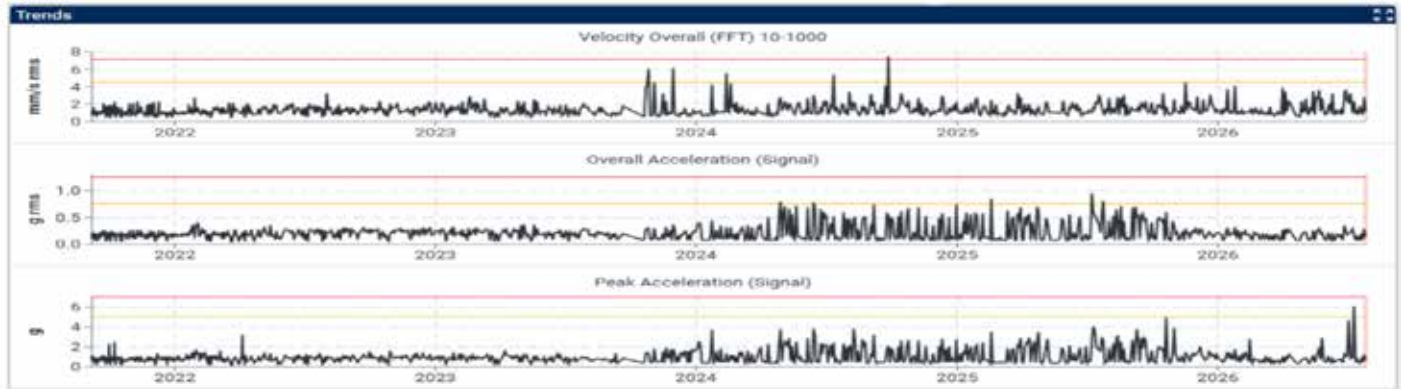
AVT Reliability® had already been supporting the site through routine condition monitoring, with the wider programme gradually expanding to include Machine Sentry® technology.

Following the identification of two fuel handling cranes as critical assets, Machine Sentry™ Fixed (MSF-2) sensors were introduced to demonstrate the value of remote condition monitoring. Once the data had been validated, monitoring was extended across both cranes and a Machine Sentry Gateway was installed to enable remote collection.

THE RESULT

Remote monitoring now gives the customer regular condition data from the crane drive system while reducing routine exposure to a difficult operating environment.

Long-term trend data provides a clearer picture of changes in vibration condition and supports earlier investigation of developing issues, helping maintenance teams make more informed decisions around these process-critical assets.



BUILDING A RELIABILITY STRATEGY

Effective condition monitoring does not always begin with a site-wide installation.

This programme began with routine monthly data collection before targeted remote monitoring was introduced on assets where more frequent visibility could provide additional value. As confidence in the data and technology developed, the programme expanded to more than 90 Machine Sentry™ sensors supported by nine gateways.

This phased approach allows monitoring strategies to develop around asset criticality, operating risk and maintenance priorities, combining route-based and remote monitoring where each delivers the greatest value.

BUILDING A RELIABILITY STRATEGY

The programme continues to evolve as Machine Sentry technology develops.

The gearbox sensors on Crane 1 are planned to be upgraded to MSF-2 Low Noise sensors, providing clearer spectral data at lower frequency ranges and supporting more detailed gearbox analysis.

AT A GLANCE

Industry:	Waste-to-Energy
Application:	Fuel handling cranes
Equipment:	Main drive motor and gearbox bearing locations
Technology:	90 Machine Sentry Fixed sensors 9 Machine Sentry™ Gateway's
Monitoring:	Semi-continuous monitoring
Service:	Condition monitoring and reliability support