MultiSensor AI

Case Study

Upgrading Fire Prevention and Maintenance for a Top Pulp and Paper Manufacturer

Summary

After a fire forced a shutdown, a leading pulp and paper manufacturer partnered with MultiSensor AI to deploy early fire detection and continuous asset monitoring. Using thermal imaging and AI-powered software, the facility achieved a 62% reduction in asset failures—saving over $550,000 in unplanned downtime within the first year.

Challenge

A U.S. pulp and paper manufacturer experienced a $3.42M loss from a sawmill fire with no early detection in place—damaging assets, halting production, and driving up administrative costs. In addition, calendar-based inspections failed to catch early signs of equipment failure, resulting in multiple critical breakdowns each quarter. Unplanned downtime and lost production led to $1.1M in avoidable annual costs.

Solution

MultiSensor AI partnered with the saw mill to enhance fire safety and asset reliability by installing 14 FMX 400 thermal cameras, each covering up to eight key areas. Integrated with AI-powered software, the system delivered 24/7 monitoring of high-risk zones and critical equipment.

The solution was integrated into the existing fire suppression system, triggering automated alerts for rapid response. The client's reliability team also leveraged the platform to track mechanical health and plan maintenance proactively.

The solution enabled global access to live thermal feeds, real-time notifications, and secure data archiving—strengthening safety protocols and operational efficiency.

Results

Real-Time Safety Alerts

Multisensor AI's System delivers instant alerts when potential thermal incidents are detected, dramatically improving response times and situational awareness.

Zero Incidents Since Implementation

Since the system went live, there have been no recorded thermal runaway events, highlighting the effectiveness of proactive monitoring.

Automated Incident Workflow

The security team now receives automated alerts, shifting from passive monitoring to active intervention. Future plans include direct integration with emergency services to further streamline response times.

62%

Reduction in asset failure/run-to-failure protocols

$550k

Saved in unplanned downtime

40%

Maintenance cost savings by minimizing reactive repairs and spare part usage

11.4x

Increase in throughput from optimized performance