



LLumin's CMMS+ Gives Oceania Dairy the Peace of Mind of Knowing Their People, Products and Plants are Safe

Business Challenges

- Protecting Plants & People Against Dust Explosions
- Proactively Track Inspection and Maintenance Schedules
- Faster, Accurate and Hassle-Free Audits

LLumin CMMS+ Key Features

- Integrated safety & compliance functionality
- Configurable, yet and easy-to-use
- Automated workflow that triggers actions and notifications

The Results

- Safety monitoring ensure plants and people are protected against dust explosions
- Faster, accurate and hassle-free audits
- Proactive Maintenance Lifecycle fully implemented

About The Customer

With the dairy products market now worth more than \$US62 billion in China and the USA respectively, Oceania Dairy Limited was initially established to help meet growing international demand for New Zealand milk powder. The company is internationally recognized and respected as a producer of highly valued dairy nutrition that nourishes people for a better, healthy life.

This aligns directly with their parent Yili Group, whose goal is to be the most reliable healthy food provider in the world by 2030. All this is underpinned by Yili's core values of excellence, accountability, innovation, and respect.



“Having a good, robust set of system rules and automation in LLumin definitely keeps our people safe, and it keeps our product safe as well.”

Challenges

Challenge: Protecting Plants & People Against Dust Explosions

Powdered milk, flour and sugar dust explosions are common across multiple sectors all over the world. According to the National Fire Protection Association, the U.S. experienced more than 200 dust fires and explosions in 2019 alone. And these events damage facility infrastructure, contaminate product, and impact human life. Combustible dust is deadly. Recently, in March 2021, a fatal blast at a potato starch plant in Singapore killed three workers and injured seven more.

These are scenarios that keep a man like Ian Laing, up all night. “We deal with milk powders, and given the right conditions, it can be explosive,” says Laing, a capital projects, maintenance, and services manager for Oceania Dairy in New Zealand.

His plant of 400 employees can process up to 47,000 tons of infant and adult milk powder per year. And while the industry has many internal and external systems to monitor safety and quality, it’s also Laing’s job to protect his colleagues and facility. “We want to make sure our people are going home,” Laing says. “The last thing we want to do is have anyone injured at work.”

Challenge: Proactively Track Inspection and Maintenance Schedules

“Some work orders are done every three or four weeks, some are done annually and then some have to be done every few years. Don’t quote me on the exact number.... which is why we have LLumin: I can’t possibly remember all of them.” Says Laing.

Without the right tools, people make mistakes. These mistakes can be avoided through many small maintenance steps done right, on schedule, every time. Every asset has its own dizzying maintenance timeline and condition parameters. It’s a lot to juggle, but LLumin stores all this information, eliminating the need for paper-driven maintenance management. CMMS+ is 100% digital. “You don’t want a paper-based system. Paper goes missing all the time, and it’s virtually impossible to manage.”

Challenge: Faster, Accurate and Hassle-Free Audits

Driven by past tragedies, such as the melamine poisoning occurrence in China over a decade ago, consumer safety is crucial as ever. Oceania Dairy boasts several recognitions and certifications, including FSSC 22000 and ISO/IEC 17025 accreditation. This is no small feat. By relying on LLumin’s one-touch record keeping system, Laing can optimize every maintenance detail to minimize spoilage or contamination.

“We generally have two types of audits: one is health and safety, and one is a food safety audit. The health and safety audits are generally done by our team. We had a critical risk team that tried to identify all ways in which an explosion could occur,” says Laing. “And then they’ve made sure we’ve got good controls in place to prevent that, or other bad things from happening.”

Food audits also occur at powder milk plants. In addition to external regulatory inspections, Oceania also faces frequent external customer audits before gaining approval to sell in various international markets. Laing must meet Oceania’s high internal standards for plant and consumer safety. “Auditors want to check your HVAC system to ensure the air being circulated is at the right temperature, humidity, and does not tolerate contaminants of any type,” says Laing.

Solution in action

“We have periodic audits, and the auditors love LLumin. It’s a nice central repository,” says Laing. It’s very easy to locate and review data, either on the screen or in a printed report.

When quality auditors visit, they ask for data on the pasteurizer divert system and our HVAC systems. “Those calibrations are all recorded in LLumin,” says Laing. “We can show them work history on any particular asset, a pump or valve for whatever piece of equipment it is. We can show all the work we’ve done on it by type and for any time period.”

In a manual or inefficient maintenance system, locating information for internal and external customer as well as regulatory audits is hard to find and compile. For auditors accustomed to slow reporting, this easy, instant record retrieval at plants that use LLumin CMMS+, is refreshing. Even when auditors ask for very specific requests, such as, ‘Show me your last two calibration certificates for the pasteurizer,’ Laing can retrieve the records in less than a minute. “They are used to dealing with things that are a bit more antiquated and not quite as fast and efficient,” says Laing. “LLumin is great for the auditor. Happy auditor is a happy life.”

Once set-up, LLumin’s CMMS+ tracks this all in the background and basically makes sure we don’t ever drop the ball.

Maintenance Lifecycle Fully Implemented

Laing’s department uses LLumin to proactively track and schedule work, organize service requests, manage parts inventory, automate supplies orders and keep detailed records to make the plant’s preventative maintenance as effective as possible.

Oceania Dairy has strict maintenance standards designed to uphold both plant and product safety. To meet them, more than half of the plant’s 400 personnel use LLumin regularly, and Laing’s team of 50 relies on it every single day to engineer the safest and most efficient conditions possible.

Spoilage risk increases during unplanned downtime, whether labor or machine related. For mitigating machine failure, Laing relies on LLumin for proactive and well planned maintenance scheduling. This lets the plant clear the production calendar to work on critical assets like dryers and pasteurizers without leaving unprocessed milk on the line. And when it comes to maintenance work activity, LLumin optimizes tasks and actions, improving speed to completion (MTTR) by up to 35%.

LLumin’s CMMS+ helps Laing assess and plan workforce capacity. If needed, he can supply proper staffing before major repair sessions ever start. “LLumin gives me insight into when the team may be overloaded. We have the option to bring on additional contractors to get through spikes in workloads.” Having this insight allows us to make data-driven decisions so there are no surprises.”

And that’s the great thing about LLumin: It’s quite user friendly. All of the team knows how to use it,” says Laing. “It gives us confidence that the product we’re making is absolutely top notch.

Results

Oceania Dairy has used LLumin CMMS+ since opening in 2014, integrating it seamlessly with their ATEX system. While there's no "before" state to compare the experience against, Laing only has to look at the CMMS other dairies use to understand LLumin's value against competitors.

From combustible dust mitigation to easy day-to-day proactive maintenance, LLumin's CMMS+ gives Oceania Dairy the peace of mind of knowing that their people, products, and plants are safe.

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