

Multi-Layered Monitoring for Full Transparency of LN2 Tanks Storing Reproductive Tissue

Cryopreservation of reproductive tissue is a valuable resource for patients who want to preserve their fertility options for the future. This is true of IVF patients as well as cancer patients who bank tissue before chemotherapy and radiation treatment begins.

While liquid nitrogen tanks store valuable specimens of all kinds, there is added sensitivity around the preservation of reproductive tissue. Future life hangs in the balance and one LN2 storage tank issue can cause devastating loss for patients and their families.

ReproTech, a long-term cryostorage facility for reproductive tissue received from IVF centers and oncologists, has gone the extra mile to ensure the safety of the samples they store. Alongside an internet-based monitoring system installed to alert staff of temperature fluctuations in LN2 storage tanks, they decided to invest in a redundant cellular-based system as a safety net. For the latter system, they wanted a level alarm probe monitoring system that would notify staff of low nitrogen levels in the tank based on the probe's touch.

"If our internet were to go down, we wanted something additional in place with the ability to alert us in a different way," noted Dänika Batastini, ReproTech's Vice President of Operations.

After evaluation between a few competing systems, the ReproTech team chose CORIS as the ideal solution to establish a multi-layered monitoring system.



Customer Service at Every Stage of Implementation

When asked about her experience working with CORIS, one of the standout elements Batastini highlighted was the “pure customer service”.

With direct access to the team of engineers behind the CORIS system, ReproTech worked with CORIS to develop a system that would be suitable for their five facilities located in Nevada, Minnesota, Connecticut, Florida and Texas.

“That’s the nice thing about CORIS,” Batastini said. “You have the opportunity to talk to the people that are making the pieces and developing the system. They’ll help make it right for you.”

Part of this process included several on-site ReproTech facility visits from the CORIS team. Some of these visits, for example, involved measurements to verify the optimal layout of the monitoring system. The CORIS engineer on-site would go back home, make adjustments on their 3D printer, and return an hour later with a resolution.

The same level of support also carried through to the CORIS system setup. This has made it easy for ReproTech when new probes are ordered and added to the tanks.

“All we have to do is send out an email that states ‘we’ve added this probe to this tank; can you please get it set up for us?’ and they do everything behind the scenes,” Batastini noted. “It’s very hands off for us at that point. They just let us know when it’s viewable on the platform.”

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Customization Within the System Itself

Alongside customer service, Batastini emphasized another CORIS strength: available customization.

ReproTech uses the system's three-tiered escalation scale to send alerts based on the severity of the issue in an LN2 tank. The tiers are divided up into possible, definite and urgent problems, with alerts rolling up to the next level if an issue hasn't been resolved within a certain period of time. These alerts are transmitted to ReproTech personnel on the contact list for each of these tiers.

The flexibility on how to receive alerts has also been a benefit. In the case of possible issues, text options have offered a convenient way for staff to stay in the loop on potential LN2 tank issues. As issues become more severe, alerts can transition to a phone call to help communicate that added sense of urgency.

These customization capabilities, paired with the reliability of the CORIS monitoring system, have given ReproTech that valuable peace of mind regarding their LN2 tanks.

"If there was a failure with the other system or for some reason a call didn't go out, this added layer provides us with transparency with our tanks, immediately letting us know there is an issue," Batastini said.

Putting CORIS Reporting Capabilities to Use

Every week, reports are automatically generated at each ReproTech facility via CORIS for all LN2 tanks.

If any alarms are detected in the reports, the reports are reviewed to make sure notes are included on what caused the alarm and what was done to resolve the issue.

In addition to these weekly reports, ReproTech also performs a test probe alert. With the need to test probes a minimum of once per quarter, the probes are forced into alarm to make sure that the alarm is working correctly and personnel are notified as designated. The report serves as proof that the system is meeting all of its expectations.

Contact CORIS