Preserving Invaluable Museum Research & Collections

WITH CORIS MONITORING SYSTEMS



Just as important as everything that museums collect and study is the way those important assets are preserved. From cultural artifacts and specimens to works of art, temperature and humidity fluctuations can alter materials within these collections and cause the objects to deteriorate without swift action.

To this end, Tim White — the director of collections and research at one of the oldest and largest natural history museums in North America — sought to automate the museum's temperature and humidity monitoring. "In the museum world, we've looked at a lot of hardware and standalone solutions for data logging," White noted. "I've had a person go around once a month and download information from data loggers, but this made it difficult to catch issues as they were occurring."

Having heard about CORIS from one of his colleagues, White first found a use for the CORIS system in monitoring LN2 and ultra-low-temperature freezers, and then for monitoring the museum environment and assets during an extensive renovation project.



Monitoring LN2 & ULT Freezers Housing Invaluable Specimens

In addition to specimens on display throughout the museum, the museum's sub-basement in an adjacent building houses various specimens between three LN2 freezers and one -80°C freezer.

Recognizing the need to monitor these freezers for proper preservation, the museum initially partnered with another temperature monitoring vendor. However, when the vendor's equipment failed to function properly and messages weren't sent in a timely manner — combined with a lack of support — frustrations mounted and the need for a new vendor was clear. That's where CORIS came into the picture.

With the 24/7 wireless monitoring system from CORIS, museum personnel receive real-time alerts when temperature issues are detected in the freezers so they can take the appropriate action to keep specimens safe. All the while, the temperature readings are permanently stored in the cloud so staff can remotely analyze data to spot patterns and trends and pick up on issues.

Alongside the reliability and flexibility of the CORIS system, White was also impressed with the level of service provided by the CORIS team. "They don't look at issues as problems. They look at issues as how they can help find solutions."

Comprehensive Monitoring **During Museum Renovation**

In an effort to expand research capabilities and enhance the visitor experience, the museum set out on a \$200 million renovation — a project that includes the addition of new classrooms, new collection areas and more gallery space.

As construction commenced, seven dioramas were protected by temporary 'rooms' of plastic sheets, and portable HVAC units were brought into each plastic room to maintain proper temperature and humidity so dioramas would not degrade. (The normal HVAC system was turned off in the building, so these isolated areas were needed.)

"If we were to lose temperature in those LN2 freezers, 50 years of research would be down the drain."

Tim White, Peabody Museum,
Yale University



By adding CORIS temperature and humidity sensors near these dioramas in each of the plastic rooms, museum staff could effectively monitor the environment whether on- or off-site.

"Every morning, one of the first things I do when I get up is pop on CORIS," White stated. "I look to see what the temperature is in the liquid nitrogen freezers and what the temperature and humidity is up and around the murals. It's that absolute peace of mind."

Since each portable HVAC unit has a garden hose to supply water for humidification, there is potential for a water leak — one that could occur at night or on a weekend, and be especially disastrous. In light of this, the museum had CORIS place water detection sensors at each of the seven portable HVAC systems, helping avoid costly repairs and damage to irreplaceable assets.

Planning For The Future

For White, CORIS monitoring systems have proven to be a beneficial investment in keeping the museum and its assets safe — no matter the state of the environment.

"I've worked in the museum world for 38 years, and we've been looking for this solution for a long time."

Seeing the value of CORIS systems in monitoring freezers and providing peace of mind in the renovation process, White plans to add more CORIS temperature/humidity sensors to monitor many of the museum's exhibits and collections, as well as a building adjacent to the museum.

These plans all feed into a long-term partnership between the museum and CORIS, as White highlighted. "I look forward to working with them for many years."

