



SUCCESS STORY

LIFE TECHNOLOGIES

(A Thermo Fisher Subsidiary)

WHAT THEY NEEDED:

Life Technologies, a biotech/pharmaceutical company that is now a part of the Thermo Fisher Scientific family, was looking for a monitoring system that was more comprehensive than what they currently had.

In each of their facilities—Carlsbad, CA, Austin, TX, and Frederick, MD—they'd already installed simple temperature monitoring due to the sensitive nature and cost of the products they stored. For the most part, this protected their valuable assets. This also, however, did not prevent the loss of a compressor unit in one of their coolers because the temperatures were still maintained due to the redundant cooling systems. They had never received any indication that there was a growing issue within the equipment itself. Not wanting to absorb the cost of another equipment failure, they sought something better.

WHAT NRM PROVIDED:

NRM provided a solution that not only armed their staff with a plethora of monitoring info they didn't know was available to them, but one that also drastically reduced the amount of energy used by their large portfolio of coolers and freezers.

It began with implementing our Remote Site Manager platform, the most comprehensive controls and monitoring tool on the market. The RSM platform provides live 24-hour access to temperatures and settings, equipment runtimes, on-demand defrost options, mobile alerts, and automatic logging of historical performance. They use the system daily, and it has dramatically decreased the amount of time spent each day manually checking and recording temperatures.

On top of the monitoring platform, NRM's solution also had a not-insignificant impact on their energy costs. By instituting an adaptive cooling schedule, which included a lead/lag relationship between redundant systems, the average "on" time for their cooling equipment went from 100% of the time to around 40% without degrading the cooler or freezer's ability to satisfy temperature requirements. Between the three facilities, 24 cold environments were optimized for their most efficient operation, and as a result, Life Technologies sees annual combined monetary savings around \$175,000.



SOLUTION SNAPSHOT

Industry:

Biotech

Facilities:

3

Cold Rooms: 24

15 Walk-in Coolers

7 Walk-in Freezers

2 Labs

Implemented Measures:

Remote Site Manager

CoolTrol (on-site smart controls)

Anti-Sweat Door Heater Controls

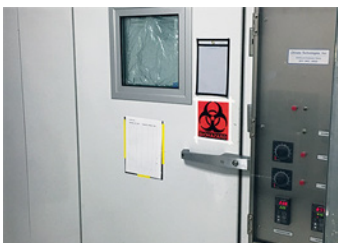
High-Efficiency EC Fan Motors

Annual Energy Savings:

1,500,000 kWh

Annual \$ Savings:

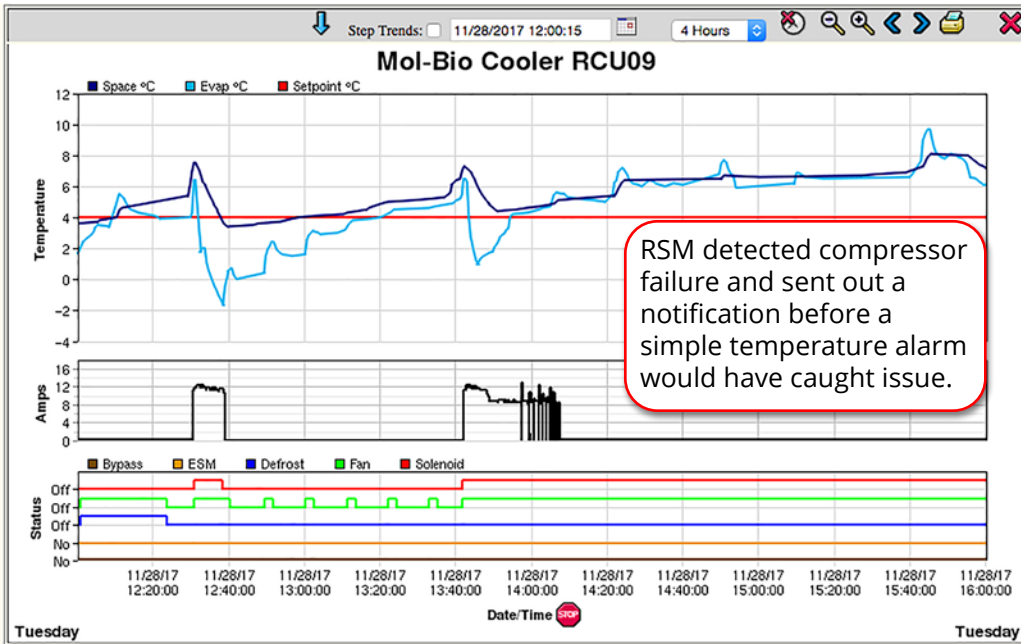
\$175,000





I utilize the monitoring dashboard every single day. Because of the types of pharmaceutical compounds we store, we have redundant cooling systems in our coolers and freezers. So if we didn't have RSM monitoring the equipment itself, we wouldn't know if there's an issue because the space temperatures requirements would still be satisfied. RSM allows me to catch mechanical issues early, before we have a \$30 million mistake.

— Shawn Clarke, EH&S
Thermo Fisher Scientific



MONITOR MORE THAN JUST YOUR TEMPERATURES

NRM's powerful monitoring platform empowers you and your refrigeration technicians to be proactive when it comes to performance issues. By detecting faults early, you can decrease the likelihood of losing an entire cooler, freezer, or cold room's worth of inventory. You may also be able to fix an issue when it's still a relatively minor one, saving you money on expensive emergency repair calls.

And Remote Site Manager provides the largest cache of equipment-related alarms/notifications on the market: From standard temperature alarms to compressor start/stops, short cycling, defrost failure, amperage, doors left open, and more.

OPTIMIZATION BENEFITS



SMART CONTROLS



24/7 MONITORING PLATFORM



PREDICTIVE DIAGNOSTICS



IMPROVED EFFICIENCY



ENERGY SAVINGS



EQUIPMENT ALARMS

40K

COOLERS & FREEZERS OPTIMIZED

1.5B

KWH IN ENERGY SAVED

20+

YEARS PROVIDING SOLUTIONS

40%

AVERAGE REDUCTION IN ENERGY USE

WHAT SETS NRM APART? Our small-business approach to big-business problems. Each of our sales, support, and installation teams are comprised of in-house, licensed NRM employees. Our hardware and software are designed, tested, manufactured in, and shipped from our Canton, MA-based facility.

The implementation of NRM's solution is a true turnkey process and requires "zero finger lift" from you. With transparency and courtesy, we manage the project from idea to install. First, an Energy Advisor comes on-site to identify the areas to benefit from optimization, and then our team of engineers develops a custom outcome for your business. We also look for any utility-sponsored incentives to reduce the upfront cost of the project. The physical installation can be performed without interrupting your normal business operations, and all of our installers are factory-trained technicians. NRM is always here for training and support, with a 24/7 technical help line.