

Brady Precision Controls and Advanced Analytics: Helping Propel Life-Changing Medicine Production

octapharma
plasma

Octapharma Plasma has more than 80 plasma donation centers nationwide. In addition, their laboratory facilities test donated plasma prior to shipping it to biotech companies for medicine production. The plasma testing labs need to have specific temperature and humidity controls to ensure sample integrity.

Challenge

Soon after moving into their new building, the facilities team faced a chronic problem: maintaining proper environmental conditions in the laboratory. Although the equipment was less than five years old, it was unable to maintain lab humidity at the level needed. The lab would have to shut down when the humidity moved outside the target range, which was frequently.

Chuck Manion is the Senior Facilities Manager for the building. He recalls how the lab issue was battled for three years. They asked the equipment manufacturer, mechanical contractor, and controls contractor to help identify and correct the problem, but to no avail. The facilities staff were forced to manually monitor and adjust the system settings, often resorting to temperature adjustments in an effort to restore proper humidity levels. That led to employee discomfort and inefficient system operation.

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~ Mr. Manion



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Mr. Manion has worked with Brady Services on numerous projects. He was always impressed with the quality of Brady's people and work, and with their commitment to finding the right solution for each situation. He brought Brady in to address the lab system problem. "I knew they had the commitment, knowledge, and expertise to do what we needed done," he explains.

Solution

Brady met with Mr. Manion to review the lab's HVAC system and its chronic problems. Brady examined the controls on each unit and found that the rooftop units' original factory controls allowed limited programming adjustments. They also confirmed that the rooftop and floor units were not interacting, meaning they would frequently work against each other.

Brady replaced the old system controls with new controls that can be programmed to work with each other and the floor units. Brady linked the new controls to an advanced analytics platform that integrates system operating parameters and lab environmental conditions. The platform makes automatic adjustments to lab humidity and temperature, and Mr. Manion and his team can make manual adjustments to the system through the platform's user interface.

After the success of the laboratory system upgrades, Mr. Manion asked Brady to upgrade the controls on the HVAC system for the rest of the building. The system's units could not be controlled remotely due to the original equipment setup. That meant the facilities team could not program the system. Brady upgraded the system with automated controls that are linked to the advanced analytics platform. Mr. Manion and his team can now program and adjust the system remotely. Mr. Manion reports that the user interface is a great tool for his team. "I like that we have full access to be able to customize things to the way we want them" he says.

Mr. Manion then placed the facility's HVAC monitoring and maintenance into Brady's care. "Brady has a commitment to using data and

analytics to better manage system performance, energy usage, and predictive maintenance," describes Mr. Manion, "so bringing all of the HVAC systems under one service umbrella makes good sense." Brady remotely monitors the HVAC systems to ensure they are performing as designed and to proactively address potential problems. Mr. Manion finds the remote monitoring system "a great tool for troubleshooting issues and monitoring system performance over time."

Brady provides Mr. Manion with quarterly reports on system performance with details on each unit. This information gives Mr. Manion the ability to target repairs to equipment that is under-performing, costing energy dollars, or likely to lead to higher repair costs if not caught early.

Brady created a baseline energy use profile from previous facility energy bills. The baseline is used to evaluate energy use trends moving forward. The quarterly reports include a rolling annual energy use analysis that is used to track trends in usage and costs.

Results

Mr. Manion, lab employees, and the company are enjoying many benefits from the HVAC upgrades:

- Laboratory humidity levels are consistently maintained within the target range. In the year since the upgrades, there has been no lab downtime due to humidity issues.
- Employee comfort in the lab has been improved.
- Energy and cost savings have been even better than expected. The most recent energy report shows the weather-normalized total building energy costs decreased \$40,000 over the previous 12 months. This puts the ROI for the upgrades at less than one year.

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