

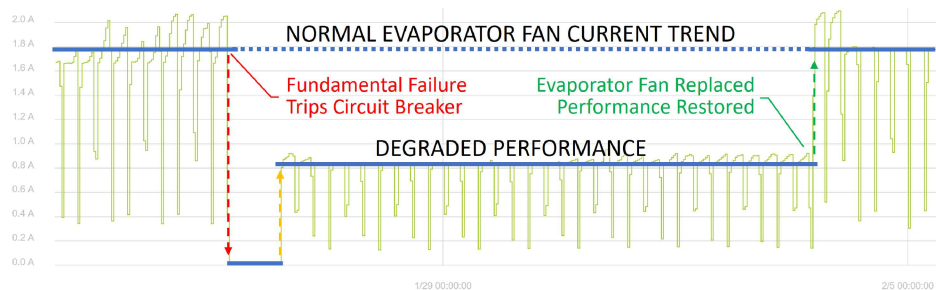
IoT Helps to Avoid Food Loss

THE CHALLENGE

Cooking great, tasty Vietnamese food requires fresh ingredients. That in turn demands reliable restaurant equipment – like the freezer. Freezers however are mechanical devices. And mechanical devices fail. A failing freezer can be disastrous and lead to massive food loss. By the time humans detect that the freezer is on the fritz, it frequently is too late.

THE SOLUTION

Freezer failure was exactly what a great restaurant in San Francisco, “A Taste of Vietnam”, had experienced. After a long history of repeated refrigerant recharging and food loss, the owner had installed the OptumSoft monitoring solution. He knew that being prepared was better than simply reacting when it is too late.



Being prepared is exactly what the OptumSoft solution enables. So when one of the freezer’s two evaporator fan motors burned out, it was quickly detected and a repair man sent for.

As the repairman arrived, it was not immediately clear to him that the evaporator fan needed to be replaced. The fan appeared to be rotating normally... Yet, such old-school diagnosis can be misleading: The fan rotates due to *residual air-flow* from the neighboring fan. The fact that it has power does not mean that it *consumes power*. To discern that, one needs to look at current flow over time.

THE RESULTS

With the sensor data history in hand, it was obvious that the current draw from the two evaporator fans had been at 1.8 A before the failure. Then the circuit breakers tripped. And as the system came back on line, the evaporator fan power consumption was cut in half. The conclusion was clear: one of the evaporator fans had shorted out and now had open windings. The freezer was no longer running efficiently.

As a new evaporator fan motor was installed, the freezer quickly returned to normal behavior avoiding potential costly food loss with resulting negative impact to revenue at “A Taste of Vietnam”.

S M A R T H V A C - R S U C C E S S S T O R Y