# i-ALERT®

### Case Study

www.i-alert.com

## Application: Cooling Tower

### Problem

A critical cooling tower at a New Jersey hospital failed unexpectedly and an emergency repair was required. Prior to the failure, only annual vibration checks were allowed since the cooling tower cell had to be shut down and restarted for the accelerometers to be installed and then removed after data collection. Because of the lengthy monitoring interval, an impending failure was not caught early enough.

#### Solution

The gearbox and motor were fitted with i-ALERT<sup>®</sup> devices during the repair. The i-ALERT is an affordable, compact sensor that can be quickly attached to any pump, motor, fan or other type of rotating equipment. Inside the sensor is everything needed to measure temperature and vibration in all three axes. The unit takes readings every five minutes, records them every hour and stores them for 170 days.

Because the i-ALERT is Bluetooth<sup>®</sup> Smart-enabled, it can transmit data to a smartphone or tablet from a safe distance of 30-100 ft. (10-30m) while the equipment is still running. No crawling around equipment. No having to harness up to climb a platform. With outside installations, a technician can often get readings without even leaving the truck.

### Benefit

The hospital is now able to perform vibration and temperature data collection without shutting down the cooling tower cells. They have not experienced another undetected failure since.

Even when equipment is more accessible, the i-ALERT offers many advantages over walk-around micro-log data collection. Because data is received wirelessly, collection time is usually reduced by more than 50%. Plus, because it can be performed by anyone who can use a smartphone, highly trained vibration analysts can spend less time gathering data and more time troubleshooting. Most important, i-ALERT2 enables continuous data, not "snap shot" data, to be collected, which provides the information needed to resolve root causes much more effectively.

