

CTC AppNotes

A series of technical documents written by members of the CTC community

Four Quick Safety Tips for Condition Monitoring

Sometimes critical machinery is located in difficult to access or downright dangerous to be around locations. CTC manufactures a variety of items designed to make the analyst's job both easier and, more importantly, safer. This edition of *AppNotes* will offer a few tips on items that can keep everyone safer and happier, even the bean counters at the home office that worry about lost man-hours.

1. Permanently mounted sensors

In some locations, even when the machinery to be monitored is located out in the open, a datapoint may require excessive manpower in order to collect data. One plant has more than 30 twenty ft. high vertical pumps widely scattered across their 50 acre campus. For several years, data was collected by one analyst driving a 20 ft. extension ladder around on a golf cart until the safety inspectors saw him. After that it required 2 personnel and an extension ladder, one to take the data and one to hold the ladder. Permanently mounted sensors with a cable termination box mounted near ground level not only solved the safety issue, it improved the data collection times by greater than 50%.



Permanently mounted sensors can save time and manpower.

2. Break-away safety features really work.

One of CTC's most popular options for route based data collector cables is the break-away safety feature.



CTC's breakaway safety feature saves lives and data.

Many analysts and their supervisors have written in praising their safety feature enabled cables. One analyst sent in 7 or 8 shredded pieces of cable with a note stating that, not only did the cable save him from serious injury when the cable got

caught in a shaft, but it also saved his \$15,000 data collector from being smashed as well.

3. Class 1 Div. 1 is not a college course.

Intrinsically safe areas and areas with hazardous location ratings are rated that way to save lives and money. Cutting corners to save a few dollars today may cost hundreds of thousands in the long run. Always use properly installed energy limiting barriers and properly rated sensors and cables in intrinsically safe areas and Class 1 Div. 2 rated materials in hazardous locations. CTC offers a full line of accelerometers, cables and accessories for these situations.



Energy limiting barriers.

4. Double check your installation

No matter how careful we are we can all get distracted. A loose sensor can vibrate off a machine and cause thousands of dollars of damage, not to men-



Loose cable and possible loose sensor. Not only are they hazardous, but they can also compromise the data collected and cause an analyst to either miss a vibration issue or to make a call on a bearing or gearbox when the equipment is actually operating properly.

tion the possibility of turning into a life threatening projectile. Improperly installed permanent cable can become tangled in rotating machinery just like a portable cable can. Both are safety issues that just disappear as soon as the cable is properly tightened down or the sensor is completely tightened up.

If you have any questions or for further information please contact CTC directly via Email at dgripe@ctconline.com or jsmith@ctconline.com or feel free to call 1-800-999-5290 in the US and Canada or +1-585-924-5900 internationally.

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If any CTC vibration analysis hardware product should ever fail, we will repair or replace it at no charge.