

CCCA: More efforts needed to stop bad cables

This section stems from information provided by The Communications Cable and Connectivity Association, Inc. (CCCA). For more on the association, contact Frank Peri at tel. 904-223-4100, fperi@cccassoc.org.

A disturbing growing trend of substandard Category cables from certain “no name” cable producers in China and Taiwan being sold in the U.S. and other regions has led to an initiative by a relatively new industry association that wants such fraud to stop.

The focus is on the role of distributors who, whether knowingly or not, are selling substandard cable that improperly carries either the UL or ETL mark. The Communications Cable and Connectivity Association, Inc. (CCCA) goal is to drive improvements in quality assurance programs as a voluntary, self-regulating move among manufacturers and distributors, negating the need for governmental intervention to protect public safety.

The CCCA, which commissioned an independent lab to test nine randomly chosen samples of Category cable, all carrying either the UL or ETL mark, reported the findings in a recent press release that cited the following results:

- 9 out of 9 failed to meet all minimum physical requirements for communications cable (per TIA 568-B.2 spec).
- 4 out of 9 failed to meet all minimum electrical test requirements for communications cable (per TIA 568-B.2).
- 8 out of 9 failed to meet the minimum flame/smoke safety requirements specified by the National Electrical Code (specifications UL 1666 and NFPA 262).

Observed the CCCA press release, “We believe that the

manufacturers of these failing products are using substandard materials for profit motives, without regard to the safety of building inhabitants.”

“We were stunned by the results,” said CCCA Executive Director Frank Peri. “Based on what our members have told us we knew that there was a problem, but we didn’t expect the results to be this bad.” Beyond the likelihood for poor performance, he cited the following safety issues:

- 4 out of 5 CMR (riser) rated cables failed the UL 1666 flame test. The failing cables burned the entire length of the test chamber. The worst cable burned beyond the maximum length allowed in 45 seconds, and reached a temp of 2000°F.
 - 4 out of 4 CMP (plenum) rated cables failed the NFPA 262 plenum test. The samples showed peak smoke levels at least 3 times higher than maximum allowable levels.
- The worst performing cable had disastrous results.
- Peak smoke levels were >4X higher than maximum allowable levels.
 - Average smoke levels were >5X higher than maximum allowable levels.
 - Flame spread reached maximum length of the chamber within 6 minutes.

Speaking at IWCS, CCCA President Kevin St. Cyr, president of Berk-Tek, said that counterfeiting has become a big issue. He cited one cable manufacturer official who said that his company has a large



A before and after view of plenum cable being tested to see if it meets flammability specifications.

Perspectives is an occasional section that presents commentary/analysis from individuals on different industry topics.

market share in a certain country—even though the company has no presence there. Aside from the safety issues, plenum products must meet the minimum specs as the systems they go into are designed for a certain level of fire and smoke, physical, and electrical performance as well as quality, he said. “(Customers) are being cheated,” he declared.

In its press release, CCCA notes that all the product samples had either the UL or ETL marks, and that while the compliance testing agency typically selects products from manufacturing site locations and tests them to industry specifications, little or no field testing is performed. “Our sample test results strongly imply that different products are being shipped to North America than those that are being tested by the testing agency,” it said.

CCCA recommends a new certification program “to restore confidence that communications products perform as advertised.” A critical component would be for testing of products taken from the marketplace, it said. CCCA’s goal is to work with the two major testing agencies in North America to develop a program, one that would initially include copper communications cables, but will be extended to include fiber cable, patch cords and other communications infrastructure products, it said.

Asked about the situation, representatives from UL and ETL both sent *WJI* details about the degree to which they seek to enforce proper use of their marks. Both organizations said that they would like to be contacted by people who know of cables being sold that improperly carry their labels, as such products would be counterfeit.

UL reports that it conducts an initial product test, and if the cable is found to comply, it is granted permission to apply its mark. The manufacturer has the primary responsibility for making product that fully complies with UL requirements. As part of a long-standing policy, the second phase is follow-up testing and product inspection through random factory visits, four or more times a year, to verify compliance. If there are problems, UL may visit a facility more frequently. Further, UL will randomly purchase product in the marketplace—regardless of point of origin—for testing to make sure product being sold comply with current requirements.

ETL reports that it conducts unannounced factory inspection visits a minimum of four times per year, with a physical examination of the cable being produced at the factory the focus on the use and control of the ETL listing mark. Further, product samples from the manufacturing sites are randomly selected by Intertek field inspectors to have associated flame

testing to validate that the cable product does indeed still meet the flame-rating requirements. It also performs tensile strength and elongation (unaged and aged) on the jacket of these randomly selected field samples as well as some checks on thicknesses of insulation and jacket to verify they are in compliance.

While it is in the best interest of UL and ETL to uphold the integrity of their marks, the problem, Peri explained, is that cable coming packed in containers bearing their marks may be counterfeit, coming from a different plant entirely.

The focus then goes to the distributors, who are key to the process as individual projects seldom would call for a container full of cable. An Internet search of electrical wire and cable distributors found one list with more than 200 such providers. Peri said that he believes the vast majority of distributors are responsible, representing well-known cable manufacturers. However, a few distributors offered both name products as well as “no name” cables that can cost half as much as the premium brands. He did not name the distributors whose products were tested, but said that some of them represented both types of cables.

Who oversees the distributors? Peri notes that the U.S. Customs Department can seize a container of cable, but many containers come through and it is not necessarily easy to detect whether a Category cable is up to the standard. The amount of substandard cable coming through could be in the millions of feet per year, he said, acknowledging that there is no way of knowing for sure.

Asked whether the distributors are, in essence, operating under a quasi- “honor system,” Peri said that he does not know of any official body that oversees them. He added, however, that they do come under The Consumer Products Safety Act, which makes it illegal to knowingly “manufacture for sale, offer for sale, distribute in commerce, or import into the United States any consumer product which is not in conformity with an applicable consumer product safety standard under this chapter” That act, signed into law on August 14, 2008, increased the penalties for violations to a maximum of \$15 million.

Peri said that CCCA wants the industry to work together to resolve the problem without federal involvement. He added that this is an issue that is not going to go away, and that it is possible that some government agency, once aware of the risk to public safety, could take decisive and very public action that makes a clear statement to all concerned how important this issue is. ■