Underwriters Laboratories offers several types of alarm system certification categories. Sometimes, alarm contractors may be intimidated by the variety of categories, the complexity of the requirements, and determining which category or categories best fit their business plans.

By Tom Presnak

**Burglar alarms**

To become Listed in a burglar alarm category, start by determining which category best fits the need. Today, most commercial burglar alarm certificates are issued in the mercantile category. A company looking to be evaluated under the mercantile category should start by becoming familiar with UL 681, the Standard for Installation and Classification of Burglar and Holdup Alarm Systems. Once familiar with the Standard, a company must provide UL with a sample of its work for evaluation.

(continued on page 4)
What’s Hot...

UL Fire Alarm Services Extends Overseas

On December 12, 2008, the National Fire Fighting Company (NAFFCO) headquartered in Dubai became the first company outside of North America to be certified by UL for safety in the Local, Auxiliary, Remote Station & Propriety Fire Alarm Service category. A UL Fire Alarm certificate provides confidence that fire alarm systems installed and maintained by NAFFCO meet the standards of NFPA 72, the locally-enforced fire code.

To receive UL Fire Alarm system certification, NAFFCO’s alarm system installation, documentation, repair & maintenance policies and procedures were tested and evaluated by UL field inspectors. UL also conducted on-site inspections of properties where NAFFCO alarm systems are in place. For fire alarm systems to earn UL certification, critical components of the system must also be UL LISTED and proven to comply with applicable industry safety standards.

The UL Fire Alarm Certificate service program allows Dubai Civil defense, the main governing body, as well as regional insurers to have additional confidence about fire code compliance.

UL Environment Launches to Add Credibility to Green Marketplace

Underwriters Laboratories recently announced an expansion of its services with the roll-out of UL Environment. This new company, a wholly-owned subsidiary, will offer two services. The first service is available today and is focused on conducting environmental claims validation services for manufacturers making green claims on their products, such as the amount of recycled content, exclusion of toxic chemicals and energy efficiency to name a few. This service will serve to help consumers sort through the myriad of environmentally friendly claims percolating in various industries as well as provide credibility and transparency for the marketplace. The second service will launch later this year as a certification program for compliance with industry standards set by organizations like IEEE, ASTM or BIFMA.

For more information call +1.888.4.ULGREEN or email us at ulenvironment@us.ul.com.

New Accreditation For Fire Apparatus Inspections

UL is now accredited by International Accreditation Service in accordance with ISO/IEC 17020 for inspection and testing of new and in-service fire apparatus.

NFPA 1901 requires that when results of tests shall be certified by an independent third-party certification organization, the third-party organization shall be accredited for inspection and testing systems on fire apparatus in accordance with ISO/IEC 17020, general criteria for the operation of various types of bodies performing inspection, or ISO/IEC Guide 65, general requirements for bodies operating product certification systems.

NFPA 1911 requires if a third-party test company is employed to perform NDT, the test company shall meet the requirement of ISO/IEC 17020, General criteria for the operation of various types of bodies performing inspections.

For more information about UL’s fire apparatus inspection programs, please contact Tom Hillenbrand at +1.847.664.2603 or at Thomas.A.Hillenbrand@us.ul.com.
Former NIST Researcher Joins UL

Steve Kerber joined Underwriters Laboratories® in January 2009 as a research engineer in UL’s corporate research division. In that role, he will be working as part of a team on research projects such as U.S. Department of Homeland Security work to improve fire fighter safety, next generation smoke detectors, fire service thermal imaging cameras, sprinkler spray measurements, and smoke management fire modeling.

Kerber will work with many stakeholder groups, among them the Chicago Fire Department, University of Maryland, a National Institute of Standards and Technology (NIST), International Association of Fire Fighters (IAFF), International Association of Fire Chiefs (IAFC), National Fire Protection Agency (NFPA), and United States Fire Administration (USFA). Kerber will also support UL’s relationships with the fire service.

Kerber received his bachelor’s and master’s degrees in fire protection engineering from the University of Maryland. He is also the deputy chief and training officer for the College Park, Maryland, Volunteer Fire Department. This department responds to more than 7,000 fire and emergency medical calls annually.

Prior to joining UL, Kerber spent seven years in the firefighting technology group at NIST, conducting research to improve the safety and effectiveness of the fire service, including fire department ventilation tactics and tactics to mitigate wind-driven structure fires. Kerber has completed numerous experimental series in the laboratory and live-fire experiments in high-rise buildings. In 2007, he led a series of experiments in a 16-story high-rise apartment building in Chicago to examine the use of fans to protect stairwells from smoke infiltration, increasing safety for occupants as they evacuate a structure as well as firefighters on the job. In 2008, he led a series of experiments with the Fire Department of New York examining wind-driven fires and the fire fighting strategies to mitigate them. The results of Kerber’s research have been published and shared at fire department and engineering conferences around the world. While at NIST, he was awarded a Department of Commerce gold medal and two bronze medals for his research.

For more information, please contact Mr. Kerber can be reached at +1.847.664.3329 or at Stephen.Kerber@us.ul.com.
with UL 681. Typically, this would involve an in-depth evaluation by UL staff of up to four systems, including one safe or vault installation.

A contractor must first request applications via UL's Web site. UL will then provide a quote package that includes detailed instructions on how to complete the applications and what to expect during an initial evaluation.

The oldest of UL's alarm certification categories is the central station burglary alarm category, which is recognized by many high-risk insurers as providing the highest level of burglary alarm protection. For a central station burglar alarm Listing, UL's evaluation will include an in-depth review of guard response, opening and closing procedures, and monitoring facility for compliance with UL 827, Standard for Central-Station Alarm Services. The facility review includes a detailed assessment of several items including building construction, facility security, standby power, staffing and receiving equipment. Alarm signal processing history, including guard response and opening and closing records, is evaluated for compliance with UL requirements for the category. In addition to the facility evaluation and record keeping and response review, up to four system installations must be evaluated for compliance with UL 681 requirements. The process for obtaining applications for a central station burglar alarm category also requires a request for applications from UL's Web site. Several documents, including a form to describe the central station facility, will be included in the quote package.

The national industrial security category is recognized by governmental authorities who are concerned with protection of highly sensitive products, operations and facilities. For the national industrial security category, an alarm contractor must provide UL with a written request for UL 2050, Standard for National Industrial Security Systems for the Protection of Classified Materials. Distribution of UL 2050 is strictly regulated and limited to only those providing security systems for national industrial security facilities. A UL staff member must receive a written request for this Standard indicating the specific need for this document. Evaluation of these systems is similar to the evaluations of burglar systems described previously. UL will evaluate systems to the requirements found in UL 681. Monitoring facilities are evaluated to the unique requirements of UL 2050 covering personnel and agencies responding to signals from these protected properties as well as the facility requirements found in UL 827. During a field review, UL will evaluate response of security and facility personnel along with evaluating up to four systems for compliance with UL 681 as mentioned in the two other security system categories and the requirements of UL 2050.

Monitoring centers
In many cases, an alarm company will choose to provide alarm signal disposition and monitoring only. These types of companies are not involved in system installation, testing and maintenance. UL offers a monitoring-only category for these types of companies. The requirements for the Listing of these companies are also found in UL.
827. As mentioned above, a quote package for this category will include a monitoring facility description document that must be completed and returned to UL prior to conducting the evaluation.

**Fire alarm certification**

In the fire alarm area, UL offers two Listing categories: protective signaling services — central station and protective signaling services — local, auxiliary, remote station and proprietary. Within the central station category, there are three types of Listings available:

1. **Full-service company** — This company operates its own monitoring center and also provides installation, testing, maintenance and runner service with its own staff. However, subcontracting of some of these elements may be allowed.

2. **Fire alarm service company** — Local (or divided) contractor: This type of company has its own staff performing installation, maintenance, testing and runner service, but then contracts monitoring, signal dispatch and record keeping to a UL Listed monitoring facility. Both full-service companies and fire alarm service companies can issue UL fire alarm Certificates for protected properties.

3. **Fire monitoring company** — These companies provide monitoring-only services, as mentioned previously. This Listing does not allow the monitoring company to issue a UL Certificate for a protected property. A more detailed description of these types of services can be found in the supervising station chapter of NFPA 72, the National Fire Alarm Code.

UL staff evaluates companies wishing to be Listed in all three of these categories to requirements found in both UL 827 and NFPA 72. Application requests are found on the UL Web site. Included in the pre-evaluation package will be pre-audit alarm system forms, monitoring facility pre-evaluation forms (when necessary) and detailed information regarding the UL evaluation process.

For either of these fire categories, UL staff will evaluate up to four systems for compliance with NFPA 72 requirements. The evaluation includes site visits and an in-depth review of system documentation including record drawings, test records, battery calculations and record of completion. For companies wishing to obtain a central station fire Listing, UL will also conduct a fire service test to determine proper signal response and review the signal disposition history. For the local, auxiliary, remote station and proprietary category, a contractor must demonstrate to UL its ability to provide systems complying with the requirements for each of these categories.

**Why require a UL certificate?**

For insurers, recommending fire and burglar alarm system installations that are certified by UL helps to reduce risk exposure. Issuing a UL certificate at a protected property is the alarm contractor’s declaration that it will install, service and maintain the system in compliance with proper codes and standards.

Fire marshals or fire authorities looking for a way to reduce false alarms, provide for alarm company accountability and gain confidence in ongoing code compliance for fire alarm systems in a jurisdiction will want to mandate UL certification for fire alarm systems. Many code authorities across the United States have already seen the benefits of mandating UL’s fire alarm certification program. UL’s program is code based and helps to address concerns of code authorities. UL staff will work closely with authorities to determine the best way the program can be utilized in a community.

Regardless of the stakeholder group, UL’s program delivers confidence through a systematic surveillance program that determines ongoing compliance of equipment, installation maintenance and monitoring through routine audits by UL’s expert staff.

It is important to remember that not all burglar and fire alarm systems are alike. UL will only audit systems for which UL certificates have been issued. UL Listed products provide a level of confidence that equipment is capable of performing in a way that complies with appropriate standards. A UL Listed alarm company is capable of delivering standards-based alarm services. A UL certificate at a specific property indicates that the installed system complies with all relevant standards. Only a UL Certificated system is subject to audit by UL’s trained staff. During the audit of an alarm contractor, UL staff will review all aspects of a company’s policies and procedures to provide confidence that all areas of standards compliance will be met.

UL is developing online training programs to help the fire and security industry along with code authorities better understand the Listing and annual audit processes. Alarm companies will benefit from this training, as they will also learn more about common problems found during a UL audit.

UL has a dedicated team providing outreach to code authorities and any other interested parties to help them understand UL’s certification programs and the benefits of mandating these programs within their jurisdictions. Fire officials, insurance professionals and governmental agencies can all take advantage of this resource.

For more information, please contact Tom Presnak at +1.847.664.2651 or at Thomas.E.Presnak@us.ul.com or visit www.ul.com/alarmsystems.
ULC Reactivates International Technical Committee On Alarm Systems

Underwriters Laboratories of Canada (ULC) is leading reactivation of the International Electrotechnical Commission (IEC) Technical Committee (TC) No. 79 (IEC TC79) on alarm systems.

This proactive approach at the national and international level can be seen as an integral part of ULC’s security strategy in order to bring international awareness of ULC standards on behalf of Canada.

IEC TC79 reactivated
IEC TC79 has been dormant since January 2000. With direct input from ULC and its related technical Committee on Security and Burglar Alarm Equipment and Systems (ULC-S300A), IEC TC79 was reactivated in 2007.

As a result of IEC TC79’s reactivation, ULC also reactivated international activities on alarm systems, reformulated the Canadian Sub-committee on IEC TC79, and reaffirmed IEC TC79 membership as a participating member on behalf of ULC-S300A and, by default, became the organization representing Canada. This means that Canada has a national mirror committee with participating member status. The Standards Council of Canada (SCC) administers this Canadian Sub-Committee.

At the June 2007 IEC TC79 meeting in Paris, a Chair’s Advisory Group (CAG) was created to assess the work of the technical committee. Membership on the advisory group was restricted to one representative each from Europe, Asia and North America. Mr. Mahendra (Mike) Prasad, Secretary of the ULC S300A committee, was selected to represent North America. The group held its first full meeting at ULC’s Toronto office in October 2008.

Currently, there is one active project team under the purview of IEC TC79 focusing on the development of IEC 60839-11, Alarm Systems — Part 11: Electronic Access Control Systems. This project team is using CAN/ULC-S319-05, Electronic Access Control Systems, as its base document. Two representatives of the Royal Canadian Mounted Police are leading the project team.

What this means
Though its name implies a national focus, the onset of economic globalization and the unprecedented growth of trade have given the Canadian national standards system a decidedly international focus. Increasingly, Canadians are feeling the impact of standards, regulations and conformity assessment on trade, and they are looking to the national standards system to develop the appropriate strategies. Participation in international standards work and adoption of international standards yield many advantages for Canadians. Broadly, these advantages include the adoption of international standards as national standards of Canada, sharing of expertise, and the opportunity to promote Canadian positions while at the same time gain access to international expertise. Some of the benefits specific to the area of alarm systems include:

- Increased competitiveness for the alarm industry when Canadian practices are reflected in international standards and manufacturers gain knowledge of global market requirements
- Participation in international standardization facilitates adoption of international standards by Canadian regulatory authorities, minimizes technical barriers to trade and

Scope of IEC TC79: Alarm Systems

Today, the scope of IEC TC79 is to prepare international standards for detection, alarm and monitoring systems for protection of persons and property, and for elements used in these systems.

The scope includes, but is not limited to:

- intruder and hold-up alarm systems,
- fire alarm systems,
- hazard alarm systems,
- social/emergency alarm systems,
- other monitoring and surveillance systems (for example, personal or baggage screening, and access control systems),
- associated transmission and communication systems.

The standards to be prepared shall cover terminology and technical characteristics regarding electrical safety, safe operation, testing and performance criteria of the detection, alarm, monitoring and associated transmission systems.

ISO/TC21/SC3 is responsible for standards for fire detection and alarm systems.
Underwriters Laboratories® has issued Subject 2572, the Outline of Investigation for Control and Communication Units for Mass Notification Systems. The outline covers requirements intended to evaluate the following products in accordance with NFPA 72, the National Fire Alarm Code:

- Discrete electrical control units
- Communication units
- Transport products that manipulate data packs
- Accessories for mass notification systems

Products covered by Subject 2572 are intended for use in combination with other appliances and devices for emergency communication and/or mass notification systems. Communications are through voice instructions, and alert and evacuation signals and should communicate critical information indoors or outdoors regarding emergencies. Examples of emergencies are terrorist activities, dangerous situations, accidents and natural disasters. Installation documents provided with a product should describe all of the products needed to form an emergency communication or mass communication system as well as their installation and intended use.

The requirements of Subject 2572 do not address distributed recipient mass notification systems meant to communicate via text messaging, e-blast, reverse 911, telephone alerting system, cell phone, pager, PDA activation, fax transmission, etc.

The outline also does not address two-way emergency service personnel communication systems or notification appliances.


My company sells a communication system for emergency communications. Can I get it Listed at UL? If so, what criteria do I need to consider?

addresses Canada’s obligations under the World Trade Organization agreement. Using international standards approved by SCC as national standards of Canada helps overcome international trade barriers

- Comprehensive set of standards for security professionals to work to when dealing with global security requirements at a work site
- More choices of competitive products complying with international standards for consumers

Involvement with IEC TC79 means that the ULC-S300A technical committee will receive all pertinent international standards and correspondence under the purview of IEC TC79. Canadian manufacturers of alarm equipment benefit by increased awareness of related standards being developed or revised.

The next plenary meeting of IEC TC79 has been scheduled for June 2009 in Ottawa. ULC and industry stakeholders from the ULC-S300A committee are hosting the meeting.

For more information on IEC TC79, please contact Mahendra (Mike) Prasad at +1.416.757.5250 ext. 61242 or at Mahendra.Prasad@ca.ul.com.

It is with great sadness that we announce the passing of Heather Kile, the editor of the Fire & Security Authority newsletter. Heather lost her battle with cancer on Sunday, November 30, 2008. She will be dearly missed by many.
Calendar of Events

To the right is a list of meetings and important events for the fire and security communities. If you would like The Fire & Security Authority to consider publishing your upcoming events, contact Kim Mulhall, editor, in Northbrook, Ill., by e-mail at Kimberly.A.Mulhall@us.ul.com. Please type “Calendar” in the subject line.

April 2–4
International Security Conference West (ISC)
Las Vegas, NV
www.isc365.com

April 14–16
Automatic Fire Alarm Association (AFAA) Codes Conference & Annual Meeting
Savannah, GA
www.afaa.org

April 21–23
Risk Management & Insurance Society (RIMS)
Orlando, FL
www.rims.org/annualconference

April 22–24
SecuTech Expo 2009
Taipei, Taiwan
www.secutech.com/env/index.asp

April 23–25
Fire Department Instructor’s Conference (FDIC)
Indianapolis, IN
fdic09.events.pennnet.com/
UL is the Main Program Sponsor

April 30–May 2
NFSA 2009 Annual Seminar
Orlando, FL
www.nfsa.org

May 12–14
IFSEC / FIREX
Birmingham, UK
www.ifsec.co.uk

June 9–11
National Fire Protection Association (NFPA) World Safety Conference & Exposition
Chicago, IL
www.nfpa.org
Pre-Conference NFPA facility tour of UL, UL is an Event Sponsor

Jun 24–25
Electronic Security Expo
Baltimore, MD
www.esxweb.com