

## **Underwriters Laboratories Approved**

By Wil Dawkins

Cleaning and maintenance managers face a growing mountain of safety concerns. From providing chemical safety training to improving work procedural training, today's managers spend a good portion of their time educating workers about potential safety hazards. However, one area with which many managers have little experience with is evaluating the safety merits of work equipment.

Product safety evaluations require in-depth knowledge and technical expertise. Though most managers are not technically qualified to make in-depth product safety evaluations, there are organizations -- such as Underwriters Laboratories, Inc. (UL) -- that can help.

UL is a product-safety testing and certification organization. Founded in 1894, UL is an independent corporation and has no ties to companies whose products it evaluates. It generates revenue through charging fees for product evaluation and follow-up service evaluations.

## UL's Beginnings

UL grew from efforts by the insurance industry to evaluate fire safety standards. In 1893, the city of Chicago, IL, hosted the Columbian Exposition, which featured the largest public use of electrical lights to that date. The massive light display brought with it unforeseen fire hazards.

The Chicago Board of Fire Underwriters hired William Henry Merrill, an electrical investigator, to study the circumstances surrounding fires which had occurred at the exposition. Merrill's findings underscored the need for increased public safety and electrical application reviews.

With the support of the insurance underwriters, he conducted the first scientific evaluation of electrical insulating material. UL grew as a result of Merrill's work.

Today, UL is one of America's leading product safety certification organizations. It employs more than 900 qualified engineers, safety professionals and support staff in the fields of engineering, business, computer technology, mathematics, communications and the physical sciences. These professionals help to develop, evaluate and apply standards used in product safety certification.

What Does UL Do?

UL evaluates products for safety risks. Using established standards, UL tests products to see if they meet the technical requirements of the applicable governing standard. If the product meets the prescribed criteria, the product is eligible to have a UL-designated mark.

The UL mark is dependent upon two criteria:

- \* The governing code used for product evaluation
- \* The scope of the product's evaluation. A product may be evaluated as a whole, or individual components of the product may be evaluated.

Standards used to evaluate products have been developed by UL or other recognized agencies. UL has published more than 680 Standards for Safety, with 80 percent of these standards designated by the American National Standards Institute (ANSI) as American National Standards.

Four Safety Levels

There are four major levels of UL safety designation, based on its product safety evaluations:

Listing, Classification, Recognition Service and Certification.

UL Listing. This is the most recognized safety certification symbol. Using recognized standards, a product is tested for electric shock, fire and other safety hazards. If the product successfully meets all applicable standards, the product is eligible for UL listing and may carry the UL mark.

All products which become UL-listed must participate in the Follow-up Services Program. Field representatives make unannounced visits to manufacturers' production facilities to ensure that products continue to meet all UL requirements.

UL Classification. Products which successfully pass evaluation for certain properties are eligible for UL classification. For example, a product could be evaluated for a flammability hazard or for use in a specific setting (in a hazardous location). Floor finishes may be evaluated for slip resistance properties.

Products evaluated for compliance with standards not developed by UL, including international standards, are eligible for UL classification. Products must successfully meet the requirements of the UL standard in order to be UL Classified.

UL Recognition Service. UL evaluates components which will be used in products that will be UL-listed or -classified. The component could be a switch or plastic enclosure. UL will evaluate the component and issue it a "UL Recognized" designation if the component meets all criteria.

A product which has UL recognized components can be evaluated much quicker than a product which does not have recognized components. Products with UL recognized components are not automatically given UL listing. The product must still undergo testing for UL listing.

UL Certification. There are circumstances in which the safety performance of a product is dependent upon its installation. When this situation exists, the product must be installed by an authorized installer. The installer is said to be UL-certified. The UL certification is "released" to authorized installers of the product. An example of a product whose safety performance is dependent on its installation is a burglar alarm.

UL certification is also given to manufacturers of products for issuance to the ultimate end users and installers. Products installed by UL-certified installers (authorized and enduser) must be UL-listed.

Many cleaning and maintenance managers ask that the items they purchase be UL-classified. By understanding the purpose of UL and by being familiar with the varying levels of UL mark categorization, managers can be better informed about their products' safety levels. The safety certifications granted by UL give a manager assurance that the products they use are tested and safe.

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