



APPLIANCE ADVISOR™

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FEATURED ARTICLE

UL Launches Comprehensive Refrigerator Performance Lab in Suzhou

On August 23, 2016, UL announced the launch of its Comprehensive Refrigerator Performance Laboratory in Suzhou for the purpose of improving UL's capability in the Chinese market and offering other providers of refrigeration equipment localized, professional services for performance testing and certification. This laboratory will help customers confidently confront the increasingly demanding requirements associated with entering the global refrigeration product market.

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UL and CNCA Sign Cooperation Agreement on Green Product Certification

On September 13, 2016, The Certification and Accreditation Administration of the People's Republic of China (CNCA) and UL signed a cooperation agreement in the field of green product certification in an effort to jointly promote the adoption and mutual recognition of green product testing and certification results between China and the US. This is an early harvest from the Sino-US investment negotiations focused on mutual concerns and is an important step toward China and the US deepening cooperation and mutual trust in the field of green development. Additionally, this agreement helps promote the facilitation of bilateral trade between the two countries. Sun Dawei, Vice Minister of the Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and Chairman of CNCA, and Keith Williams, President of UL, attended the signing ceremony.

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A Letter From Brian



The Appliance and HVAC/R industries are indeed global. There are, of course, major global brands, but regional/local companies continue to expand their markets and footprints. UL has a major global presence with more employees outside North America than inside, and as I travel around the world I meet amazing people facing a common challenge: To remain competitive, manufacturers and retailers need to achieve rapid entry of safe, high performing products into the global marketplace. Our team strives to help overcome these challenges by being the industry leading provider of high-value safety, performance and expert services to enable this to happen. Below you will see some of our recent efforts to build global networks and partnerships in support of the growing global market.

Kind Regards,

Brian Ferriol
Director of Global Appliances,
HVAC/R and Lighting

Upcoming UL Education & Training for the Appliance and HVAC/R Industries

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[Guidance for European Directive Updates – How to Meet the New Requirements of the Low Voltage and EMC Directives](#)

[Introduction to IEEE 1776\(2008\): Recommended Practice for Thermal Evaluation of Unsealed or Sealed Insulation Systems for AC Electric Machinery Employing Form-Wound Pre-Insulated Stator Coils for Machines Rated 15000 V and Below](#)

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Brian Ferriol, Business Development Director @ UL and Lissette Hernandez (middle), Senior Sales Executive @ UL visit local laboratory in Mexico.



Brian Ferriol, Business Development Director @ UL hosts Faizal Jalaludin (right), Director of MIDA Chicago (Malaysia).



UL visits with AHRI at the AHR Expo Mexico tradeshow in Monterrey.



Todd Denison (middle), VP & GM of Appliances/HVAC/Lighting, Brian Ferriol, Business Development Director, and Samantha Lasley (right), Government Affairs Specialist from UL visit Thailand Embassy.

(Featured Article continued)

UL Launches Comprehensive Refrigerator Performance Lab in Suzhou

China has one of the fastest growing energy saving industries in the world. Further, China is one of UL's fastest developing markets regarding energy efficiency testing. The establishment of this lab demonstrates UL's attention to the Chinese market and customers. Mr. Brian Ferriol (AHL Global Business Director) said, "UL will respond to Chinese government's advocate to construct an environment-friendly and energy-saving society, help more enterprises to overcome miscellaneous and complicated technical barrier on energy saving to integrate Chinese standards on refrigerating products with international standards and make the domestic products of this type more environment-friendly in order to improve the global competitiveness of Chinese industries."

In the future, UL's plan to have the facility export-oriented, contributing to the manufacturing-focused Yangtze River Delta and driving development in other parts of China. UL will provide Chinese customers with wide-ranging services for testing and certification, including complete services for conformity to UL standards, safety certification for

IEC compliance, prototype and benchmark testing, and indicative solutions to the manufacturing and development of refrigeration equipment and refrigerators. Meanwhile, UL will update Chinese manufacturers on the latest demands in the market and assist them in improving product quality. These efforts will help Chinese manufacturers enter the international market with products that comply with increasingly stringent Asian, European and North American compulsory energy efficiency standards and label requirements.



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UL and CNCA Sign Cooperation Agreement on Green Product Certification

However, this is not the first mutually beneficial agreement between UL and China. In 2006, CNCA and UL signed a memorandum of cooperation that helped improve factor inspection and port checks of trade goods for both the US and China. The recent cooperation agreement further expands this bilateral cooperation into the field of green products.

According to the new agreement, designated agencies from UL and China will jointly conduct research to develop green product certification systems and programs and discuss and promote mutual recognition in the relevant fields and of the relevant product types; inform each other of green product certification, testing-related laws, regulations, standards and other information; share best practices and experience in green product certification and testing; and carry out

personnel training and technical exchanges. In addition, China welcomes UL to participate in the development of China's green product conformity assessment procedures and promote the internationalization of China's green product certification and mark.



UL and AHRI Flammable Refrigerant Research Project

The AHRTI Project Management Subcommittee met in Northbrook on August 30, 2016 regarding the flammable refrigerant research project UL is currently conducting for the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). The group also toured the labs in building 5 and the custom, simulated rooms that UL built in building 11 to allow for full-scale room emission tests.

Why the research? Many refrigerants traditionally used in refrigeration and air cooling systems were non-flammable but had high global warming potential. With the advent of the new refrigerants resulting in lower greenhouse gas emissions, refrigerant flammability risks have increased. The current study and findings will contribute to future standard development and reinforce UL's standing as technical experts in the industry.

Additionally, AHRI members were working with UL this week in Northbrook with the Standards Technical Panel (STP) for heat pumps, air conditioners and dehumidifiers. **For more information on our activities with AHRI, flammable refrigerants and more, please contact UL's Keith Opperman or Mark Skierkiewicz.**



The Latest Developments in Flammable Refrigerants

Travis Hardin / Business Development Manager for HVAC

In 2011, thirty-five representatives from a number of stakeholder organizations participated in a forum hosted by UL on the potential widespread introduction and use of flammable refrigerants in appliances and HVAC/R equipment in the US. The situation at the time was summarized in UL's white paper, "Revisiting Flammable Refrigerants." Though anticipated in 2011, the introduction of flammable refrigerants was still considered a distant transition, outside of a few pilot initiatives. Government regulations, product safety standards and installation codes, servicing, handling and disposal practices were all in need of attention before wide-scale use of such refrigerants could occur. Much has been accomplished in the five years since the stakeholder forum and publication of UL's white paper.

Globally, governments have increasingly agreed to binding and voluntary reductions of ozone depleting substances and greenhouse gas releases. In the US, EPA's Significant New Alternatives Policy (SNAP) has been active in the publication of rules to drive these reductions. Even California has considered its own regulations that would result in the reduction of HFC's.

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Standards Corner

[Click here](#) for Standards information

[Register](#) for “What’s New” to receive e-mails twice a month that let you know about the new published UL Standards, Outlines, and Proposals.

UL 325 – Door, Drapery, Gate, Louver, and Window Operators

- UL 325 remains active with a number of proposals in various stages of the standards development process. In addition to current standards activity, UL was asked by industry in Canada and the US to propose UL 325 as a joint Canada-US standard to align the requirements in both countries. Publication of one standard for both countries is an efficient way for Canadian and US requirements to remain technically consistent. Maintaining the joint standard under a single consensus committee (STP 325) will also reduce duplication of efforts. The subcommittee working on the initial draft standard has been meeting regularly, and completion of the draft for preliminary STP review is scheduled for Q4 of 2016.

UL 507 – Electric Fans

- A meeting of STP 507, to discuss several new proposals and other current standards activity, was held in February 2016. As a result of the meeting, a series of new proposals will be moved to STP preliminary review, including several addressing new motor requirements. In addition, other proposals resulting from the meeting discussion will move to STP ballot.

STP 745 – Electric Tools

- With the IEC transition to the new IEC 62841 series of standards for hand-held and transportable tools, and lawn and garden machinery, adoption of the associated UL 62841 series of standards continues, when appropriate, as the IEC editions are published.
- UL announced the publication of the first edition of the Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery, UL 62841, Part 3-1: Transportable Table Saws. UL 62841-3-1 is a bi-nationally harmonized (US and Canada) standard that reflects a combination of the table saw requirements from the legacy UL Standard for Stationary and Fixed Electric Tools, UL 987, and the IEC version of 62841-3-1. During the adoption/harmonization of UL 62841-3-1, a proposal was included

that would have required an active injury mitigation system (AIMS). The AIMS proposal did not reach consensus within the Standards Technical Panel (STP); however, technical comments are still under review.

UL 749 – Household Dishwashers

(Bi-national standard with Canada)

- The proposed 9th Edition of the UL 749 ballot closed in January 2016. STP consensus was reached, but with comments. The technical harmonization committee (THC) completed its review of the comments and changes to the proposals based on comments received. Recirculation, which opened October 7, is next, with a closing date of November 21.

UL 858 – Electric Ranges

- UL 858 continues to be very active in 2016, with a series of six new proposals completing STP preliminary review during Q1. These included new requirements for induction heating appliances and changes to the recent addition of cooking oil ignition testing. The proposals moved to STP ballot which closed September 13. There were several negative votes, and a number of comments received during ballot are currently under review. Recirculation will be next for several of the proposals, with a target timeframe of early November.

UL 923 – Microwave Cooking Appliances

- Several new proposals, including a new supplement for electronic circuits, were circulated for STP preliminary review June 10, 2016, with a closing date of June 24. A number of comments were received and are currently under review in preparation to move to ballot. In addition, a task group was formed to develop proposals intended to reduce the likelihood of a very young child being able to open a microwave oven door and access heated food or drink that may cause injury. This task group has been meeting regularly in an effort to develop substantive proposals to revise UL 923.

UL 982 – Household Food Preparing Machines

- A series of eleven proposals moved to STP ballot during Q2 of 2016. The proposals include requirements covering blender touchscreen controls, blender blade endurance, fill line for food processors, use of button/coin cell batteries, and several related to markings and instructions. All eleven proposals reached consensus, and are moving to publication.

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Standards Corner

UL 1017 – Vacuum Cleaners, Blower Cleaners, and Household Floor Finishing Machines (Bi-national standard with Canada)

- The proposed 10th edition of UL 1017 was circulated for STP preliminary review in July 2017. Based on the comments received, the proposed new edition is being prepared for ballot with a target timeframe of Q4 2016.

UL 1278 – Movable and Wall- or Ceiling-Hung Electric Room Heaters

- The task group working on a new supplement for smart-enabled room heaters is continuing its work in that area. Based on the work still necessary, the ballot timeframe has not been determined. Several additional proposals moved to ballot June 10, 2016 (closed July 11). These included requirements for clarification of alarms, clarification of static load test for hanging means and clarification of requirements for heating elements. Several negative votes were received as well as comments, which are now under consideration. Recirculation will be next, with a target timeframe of Q4 2016.

UL 2157 – Electric Clothes Washing Machines and Extractors (Bi-National Standard with Canada)

- A new revision cycle covering the proposed new (4th) edition is underway. The STP preliminary review closed September 29, 2016. Comments will be reviewed by the technical harmonization committee (THC), and the proposed standard will be prepared for ballot. The target timeframe for ballot is Q4 2016.

UL 2158 – Electric Clothes Dryers (Bi-National Standard with Canada)

- A new revision cycle covering the proposed new (5th) edition is underway. The STP preliminary review closed September 29, 2016. Comments will be reviewed by the technical harmonization committee (THC), and the proposed standard will be prepared for ballot. The target timeframe for ballot is Q4 2016.

UL 60335-1 – Household and Similar Electrical Appliances, Part 1: General Requirements

- The 6th Edition of UL 60335-1 was circulated for STP ballot in early 2016 and consensus was achieved. Recirculation was then completed as of August 15, and publication is scheduled for October 31.

UL 60335-2-24 – Household Refrigerators, Ice-Cream Appliances, and Ice-Makers (Tri-National Standard with Canada and Mexico)

- The 2nd Edition of UL 60335-2-24 was circulated for STP ballot during Q2 2016. The proposed new edition did not reach consensus, but did receive enough affirmative ballots to continue on in the process to recirculation. The THC reviewed all comments received during the ballot and is considering further changes to include in the proposal prior to recirculation. Target completion of that step, and for recirculation to begin, is Q4 2016.

UL 60335-2-40 – Household Electrical Heat Pumps, Air-Conditioners and Dehumidifiers

- Several new proposals, including realignment of the 2nd edition of UL 60335-2-40 with the current edition of IEC 60335-2-40, were circulated to the STP for preliminary review in Q1 2016. The technical harmonization subcommittee reviewed the comments received and prepared the document for STP ballot. The STP ballot opened September 16, 2016, and closes November 15.

Hand-Held Tools, Transportable Tools, Lawn & Garden Machinery: What you Need to Know!

A transition is underway as the legacy UL 60745 series Standards are giving way to the new UL 62841 series. These new Standards add needed guidance for transportable tools and lawn and garden machinery and are intended to harmonize certification. In addition to updated guidance and clarification regarding the introduction of new battery and battery charger technologies (lithium-ion batteries, in particular), UL 62841-1 includes increased reliance on electronic circuits for functional safety, new marking requirements and numerous other advancements in tool technology.

Click [here](#) to read the full white paper.

Residential Pool Fences: Did you Know?

Rhoderick P Manalac / UL Engineer

Drowning is ranked among the top five leading causes of injury death in the US. On average, two children (0 - 14 years old) die from drowning and ten more children require emergency medical attention for near-drowning incidents every day.¹ In fact, accidental drowning accounts for 30% of all children deaths ages 1-4, the group with the highest drowning rates.¹

Sadly, most of these drownings occur in residential swimming pools owned by the family, friends or relatives of the victim.¹ While there are many factors that affect the risk of drowning, one stands out more than others: the lack of a Certified pool fence or barrier.

Pool fences, both permanent or removable, are intended to prevent children from accessing the pool area without adult supervision. These fences may vary in construction materials and design, but the current trend leans toward removable fences made of mesh-type materials that are sectionalized by metallic frames. Each fence comes with one self-closing/self-latching metallic frame gate that opens outwards and the many individual sections to form a complete barrier around the pool.

Industry experts believe that pool fences are one of the most effective preventative measures against drowning. A new pool and spa safety bill, Assembly Bill 470, was recently passed by the California Senate and Assembly and is now being presented to the Governor for his signature. If passed,

this bill would supersede the current Swimming Pool Safety Act and require residential pools to have 2 forms of mechanical barrier(s) and/or acoustic alarm(s).

As supported by AB 470, removable/permanent pool fences would need to comply with the requirements of ASTM F2286, "Design and Performance Specification for Removable Mesh Fencing for Swimming Pools, Hot Tubs, and Spas." Along with this basic Standard, metallic frames may be tested for corrosion protection under ANSI/UL 50E, "Enclosures for Electrical Equipment, Environmental Considerations," and polymeric frames may be tested for UV and impact resistance under ANSI/UL 746C, "Polymeric Materials - Use in Electrical Equipment Evaluations."

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Residential Pool Fences: Did you Know?

At UL, we partner with manufacturers to help them navigate through this maze of regulations. UL experts will guide you through the regulations with our simplified Certification process. We can evaluate and test your removable pool fences to these rigorous requirements including, but not limited to, tensile strength, burst strength, weatherability, vertical load and impact. All projects and tests can be done locally in the US with strategic labs located throughout the country. With our specialized staff, we can help get your pool fence UL Certified to ASTM F2286.

It is fast, easy and marketable.

Pool fences that are UL Certified to ASTM F2286 carry a Mark that represents the highest level of integrity, trust, and safety certification in the world and also shows compliance with the pool barrier fencing construction requirements of the International Swimming Pool and Spa Code (ISPSA), and the Uniform Swimming Pool, Spa, and Hot Tub Code (USPSHTC).

Additionally, UL offers Certification to ASTM F1908 “Standard Guide for Fences for Residential Outdoor Swimming Pools, Hot Tubs, and Spas.” ASTM F1908 is geared for permanent fencing systems and provides manufacturers minimum requirements on various critical dimensions such as height, ground clearance, openings, indentations and more.

The UL Mark is North America’s premier Safety Certification Mark. Achieve the UL Mark and confidently set yourselves above your competition. With the UL Mark, your valued customers will know and trust that their pool fence is a life-saving product and that a child’s life is being saved, every day.

1. <http://www.cdc.gov/HomeandRecreationalSafety/Water-Safety/waterinjuries-factsheet.html>



Events

AHRI Annual Meeting

November 13–15, 2016 – Scottsdale, AZ

AHR Expo

January 30 – February 1, 2017 – Las Vegas, NV

Booth #: Central Hall – C4815

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The Latest Developments in Flammable Refrigerants

Concurrently, the industry developed numerous new refrigerants, including the new class A2L types, and implemented the use of “old” refrigerants (e.g. hydrocarbons propane (R-290) and n-butane (R-600A)). Today, equipment designers are challenged with designing for the use of more environmentally preferable refrigerants while still achieving acceptable functional and energy performance. Retailers and other large users of refrigeration technology have also been increasingly aggressive in sourcing such equipment for use in their facilities. Service technicians now have courses dedicated to the safe servicing of equipment containing more flammable refrigerants. Many of these changes have been enabled by standards and code making bodies who have been updating installation and product safety requirements to accommodate these developments.

Moving forward, the HVAC and appliance market is poised for a significant expansion of the use of more flammable refrigerants and UL is proud to have taken a leadership role in helping the industry prepare for the change. UL experts participate with various standards and code making bodies in the US and internationally to collaborate on the

details necessary for successful and safe implementation of these new technologies. UL’s laboratories are involved with research initiatives and projects to test and evaluate refrigerants within individual products (micro-environment) and in real-world installations (macro-environments).

Transitioning from one refrigerant to another is never a trivial exercise, but UL’s scientific and engineering expertise are at your service in this new and challenging environment. UL will be publishing a 2016 update to “Revisiting Flammable Refrigerants” that expands on these new requirements and provides in-depth information and observations on the topics introduced here.

UL’s 100+ year foundation in science and our expert technical skills and credibility give you and your customers peace of mind that your products and solutions will meet the highest level of safety and performance.

Please contact Travis Hardin at Travis.F.Hardin@ul.com for more information.

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