Product development is the engine that drives business profitability. Being able to bring a product to market on-time, on-cost and on-quality is no small task. Missing on any one of these dimensions can be the difference between a positive or negative project return. Additionally continuous improvement activities for cost reduction and quality improvement are a must to stay competitive in today’s business climate. All too often these activities are competing for the same product engineering resources – UL is here to help!

UL’s Product Engineering Services team is available to assist you with your product engineering challenges. The staff of UL Product Engineering Services averages more than 20 years of appliance product development experience.

continued on page 3
Greetings,

As the new Director of the Appliances and HVAC/R business at UL I am happy to introduce myself and pleased to be working with you. With an engineering and sales background, I have personally worked throughout the supply chain as a distributor, manufacturer, at a trade association as well as at competing certification agencies. I have seen four sides of the fence or three sides of a coin. My job is to anticipate your needs as an industry and to build services that align with those needs.

The UL of today is broadening our scope, providing new solutions to the changing needs of the industry for safety and beyond, including performance, reliability, global market access and much more. Our expanded portfolio of solutions and expert staff enables UL to be your single-source solution provider for your regulatory and compliance needs, including customization of your projects and specialty services.

As apparent from this issue, UL is looking at your needs differently. I am happy to be a part of our program and look forward to working with you. Let us know how we can help today!

Kind Regards,

Brian Ferriol / Director, Global Appliances and HVAC/R
UL (Underwriters Laboratories)

UL RECEIVES ENERGY STAR® CLOTHES DRYER CERTIFICATION

By Steve Joerger / Business Development Manager

UL is the first third-party testing laboratory to be recognized by the EPA for the new ENERGY STAR® Clothes Dryer standard. The ENERGY STAR® Clothes Dryer V1.0 standard will go into effect on January 1, 2015, however manufacturers can elect to certify their products prior to the effective date. In addition to being an EPA third-party testing laboratory, UL is also an EPA recognized Certification Body (CB), making UL your full service ENERGY STAR® partner. Let UL help you navigate the ever-changing energy efficiency requirements for your business.
SMART APPLIANCES NEED SMART STANDARDS

By Steve Joerger / Business Development Manager

Smart appliances play a critical role in achieving the full potential of smart grid infrastructure.

As featured in the March issue of Appliance Design Magazine.

Modern home appliances are, like most other areas of technology, undergoing incredible innovation. Not only are they much smarter, today’s appliances are also more energy efficient—estimated 50 to 70% more efficient than comparable products manufactured 15 years ago. And, their importance in the energy space is growing: Smart appliances play a critical role in achieving the full potential of smart grid infrastructure to reduce energy use and costs, and enhance the reliability of the power supply. They can be programmed to operate less frequently, thereby reducing energy consumption, or to shift operation to off-peak periods when energy demands and costs are lower.

PRODUCT ENGINEERING SERVICES (continued from cover)

<table>
<thead>
<tr>
<th>Their capabilities include:</th>
<th>Support your most challenging product development needs, including:</th>
<th>In addition to Product Development, this team can also support projects for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mechanical Engineers</td>
<td>• Concept Development</td>
<td>• Cost Reduction</td>
</tr>
<tr>
<td>• Electrical Engineers (including PCB’s and software development)</td>
<td>• Quality Planning</td>
<td>• Warranty Reduction</td>
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<tr>
<td>• Reliability Engineers</td>
<td>• Engineering Analysis</td>
<td>• New Supplier or New Design Qualification</td>
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<tr>
<td>• Consumer Scientists</td>
<td>• Prototyping</td>
<td>• Test Fixtures &amp; Lab Automation</td>
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<td>• Manufacturing Engineers</td>
<td>• Performance Optimization</td>
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<tr>
<td>• Tool Makers</td>
<td>• Verification Testing</td>
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Whether you need to supplement your Product Development resources, drive cost reduction projects or accelerate your quality improvement activities, the team at UL Product Engineering Services is available to help.

For more information please visit http://industries.ul.com/blog/product-engineering-services/

For help today contact Randy.Ryan@ul.com or visit with your UL Sales Representative.


**UL 82 – Gardening Appliances**

Comments were received in support of the proposal to replace the battery-operated requirements in Supplement A with UL 2595 (Battery-Powered Appliances) general requirements. The proposal is being prepared to move to a ballot of the STP during Q3 of 2014.

**UL 130 – Electric Heating Pads**

Proposals to address ambient temperature compensation during testing and to revise temperature limits for switches were posted for preliminary STP review. Comments were due June 2, 2014, and the proposals are being prepared to move to a ballot of the STP during Q3 2014.

**UL 197 – Commercial Cooking Appliances**

Revisions to UL 197 to add a new section covering appliances for outdoor use were published in October 2013. A new proposal to add requirements for a door latch, including door opening and door latch release tests, has reached consensus and will move to publication during Q3 2014.

**UL 250 – Household Refrigerators and Freezers (Bi-national standard with Canada)**

A proposed new edition is being prepared for ballot. Among several other proposals that will be considered by the STP is a new nichrome wire test. Based on the transition to the IEC-based requirements in UL 60335-2-24, it is intended that this will be the last revision cycle for UL 250.

**UL 283 – Air Fresheners and Deodorizers**

Revisions for direct plug-in devices with child appealing features reached consensus and were published March 2014.

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

A meeting of STP 325 was held April 16-17, 2014 at UL’s Northbrook Office. There were 43 topics discussed at the STP Meeting, many of which will proceed to ballot, with the remainder of the topics being posted for preliminary review and comment, Q3 or Q4 2014.

**UL 471 – Commercial Refrigerators and Freezers**

UL was recently invited to participate in an effort to adopt IEC 60335-2-89 (Part 2 for Commercial Refrigerating Appliances) as a tri-national standard with Canada and Mexico. UL surveyed industry stakeholders to confirm the level of support and invite individuals to participate in the harmonization activity. The results of the survey were favorable, and UL has agreed to participate in the harmonization effort.

**UL 474 – Dehumidifiers**

A proposal to add a test condition to ensure that component temperature limits are not exceeded in the event of a refrigerant loss reached consensus, and will move to final recirculation Q3 2014. A separate proposal to allow the use of a heat detecting circuit interrupter (HDCI) as an alternative to an AFCI, was posted for preliminary review, with comments due July 3, 2014. Comments were received and the proposal has been revised, prior to moving to the ballot phase August 2014.

**UL 484 – Room Air Conditioners**

Revisions to add an exception that LCDI/AFCI devices are not required on cord-connected packaged terminal air conditioners (PTACs) employing a sub base were published February 2014. There are no further proposals pending for UL 484.

**UL 499 – Electric Heating Appliances**

A set of 5 proposal topics went to the STP for ballot June 6, 2014, with ballots and comments due July 22. Each of the proposals reached consensus, with no comments. The next step will be publication of the related changes in requirements.

**UL 507 – Electric Fans**

A meeting of STP 507 was held February 25, 2014, in Clearwater, Florida. There were 14 topics discussed at the STP Meeting, several of which are slated to proceed to ballot, with several topics needing further revision based on the meeting discussion, before proceeding. The next STP 507 Meeting will be held in February 2015, again in Clearwater, Florida.

**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, efforts are being initiated to adopt and publish the associated UL 62841 Parts when appropriate, as the IEC editions are published.

A proposal to revise the Standard for Stationary and Fixed Electric Tools to include requirements for an active injury mitigation system (AIMS) has undergone preliminary review by the STP. The comments are being considered by the proposal author to determine if the proposal needs to be revised prior to moving to ballot.
The technical harmonization committee (THC) has met several times during Q1 & Q2 2014 to review and discuss a series of new proposals. The THC is close to completing their initial review phase, and the next step will be for UL and CSA to begin their respective preliminary reviews by the SDO consensus bodies. It is anticipated that the preliminary reviews will be initiated by Q3 2014.

UL 749 – Household Dishwashers (Bi-national standard with Canada)
The technical harmonization committee (THC) has developed a set of proposals covering polymeric materials and other related items. Those will go to the STP for preliminary review in August 2014.

UL 982 – Household Food Preparing Machines
A set of 21 proposal topics went to the STP for ballot June 6, 2014, with ballots and comments due August 5.

UL 1017 – Vacuum Cleaners, Blower Cleaners, and Household Floor Finishing Machines (Bi-national standard with Canada)
Proposed 9th edition of UL 1017 was sent to the STP for ballot May 30, 2014, with ballots and comments due July 29, 2014.

UL 1026 – Electric Household Cooking and Food Serving Appliances
Proposal to add a new supplement for smart-enabled cooking appliances went to the STP for preliminary review June 5, 2014, with comments due July 7. The comments are being considered by the proposal author to determine if the proposal needs to be revised prior to moving to ballot.

UL 1042 – Electric Baseboard Heating Equipment
Proposal to update and revise the leakage current test went to ballot July 18, 2014, with ballots and comments due August 18.

UL 1082 – Electric Coffee Makers and Brewing-Type Appliances
Proposal to add a new supplement for smart-enabled household coffee makers, and clarifications for thermostats went to the STP for preliminary review May 29, 2014, with comments due June 30. The comments are being considered by the proposal authors to determine if the proposals need to be revised prior to moving to ballot.

UL 1278 – Movable and Wall- or Ceiling-Hung Electric Room Heaters
Proposal to add a supplement for smart-enabled room heaters went to the STP for preliminary review May 14, 2014, with comments due June 27. The comments are being considered by a task group formed for this purpose, to determine if the proposal needs to be revised prior to moving to ballot.

UL 1447 – Electric Lawn Mowers
Revisions to remove the thrown object test in Section 69, while maintaining a reference to the parallel in ANSI B71.1 were published in December 2013. There are no further proposals pending for UL 1447.

UL 2157 – Electric Clothes Washing Machines and Extractors (Bi-national standard with Canada)
Proposed 3rd edition of UL 2157 has concluded its preliminary reviews, and is being prepared for STP ballot. The scheduled ballot date is being coordinated with CSA.

UL 2158 – Electric Clothes Dryers (Bi-national standard with Canada)
The 3rd edition of UL 2158 was published March 18, 2014. In preparation for the next revision cycle, the technical harmonization committee (THC) will begin reviewing a new set of proposals during Q3 2014.

UL 60335-2-24 – Household Refrigerators, Ice-Cream Appliances and Ice-Makers (Tri-national standard with Canada and Mexico)
The CANENA technical harmonization committee (THC) membership has initiated review of the draft update to UL 60335-2-24 in accordance with the latest IEC version of the standard. It is anticipated that the proposals will be available for the North American consensus bodies to initiate their respective standards development processes in 2014.

UL 858 – Electric Ranges
Proposals for cord-connected low power built-in wall ovens, redundant surface element switches, and smart-enabled ranges reached consensus during the initial STP ballot, and maintained consensus through the final recirculation. The next step will be publication of the revisions in the standard.

UL 763 – Commercial Food Preparing Machines
Proposals for filtered ventilation openings and leakage current limits for stationary ice/beverage dispensers with EMI filtering reached consensus during the initial STP ballot, and maintained consensus through the final recirculation. The next step will be publication of the revisions in the standard.

UL 749 – Microwave Cooking Appliances
Proposals for electrical connections of interlock monitors and clarification of leakage current and power input tests reached consensus, and will move to publication. Proposals for oven door child resistance and requirements to allow detachable power supply cords for commercial units did not reach consensus. Separately, a task group has developed a set of proposals covering polymeric materials and other related items.

Proposals for oven door child resistance and power input tests reached consensus, and will move to publication. Separately, a task group has developed a set of proposals covering polymeric materials and other related items.

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SOFTWARE AND MICROCONTROLLERS

By Jason Smith / Staff Engineer

UL can evaluate safety-related software for programmable components or safety-related control functions of an entire programmable component to the applicable requirements of ANSI/UL 60335-1 or ANSI/UL 60730-1. The evaluation will be specific to the embedded software and microelectronics within the IC and its designed parameters. The evaluation ensures that the component is fault-tolerant within the constraints of its design and anticipated usage. When the programmable component is then used in a safety-related circuit within a control or in a protective electronic circuit of equipment, the extent of the investigation to the end-use application/standard is reduced as a result of the evaluation and testing conducted on the component.

Available to a variety of end-product applications, this new, innovative approach allows OEMs and system integrators to achieve a reduced product-development cycle and increased speed to market.

Ease
Simplified access to end-product safety compliance
• Fewer non-compliances and rework
• Allows you to apply the UL mark potentially on the product itself (for microcontrollers / ASICs) or associated documentation

Speed
Reduce product development cycle with pre-approved microcontrollers.
• Already complies with the new requirements in the recently-adopted and internationally-harmonized standards
• Turnaround time 4-6 weeks*

Expertise
Use these components with confidence as they have been:
• Developed by subject matter experts in semiconductors and embedded software
• Independently evaluated by UL for reliability
• Promote your product to controls manufacturers today via UL’s online certifications directory under the XAAZ2/8 category.

Variety
Many appliance and HVAC/R end-product applications, testing to standards such as:
• UL 60335-2-34 = Motor Compressors
• UL 60730-2-2 = Thermal Motor Protectors
• UL 60730-2-4 = Thermal Motor Protectors for Compressors
• UL 60730-2-5 = Burner Controls
• UL 60730-2-6 = Pressure Sensing
• UL 60730-2-9 = Temperature Sensing
• UL 1004-7 = Electronically Protected Motors

The above list is not all inclusive of the standards UL is accredited to test.

For more information contact controlsinfo@ul.com

*Turnaround time is dependent on several factors, compliance is typically demonstrated via an on-site factory visit (typically two days) involving an audit of the development process and demonstration of the component under consideration, could be significantly less since there is no laboratory involvement or long-term testing. Repeat customers typically require a one day visit.
UAE Enforces Energy Efficiency Regulation for Refrigeration Appliances on July 1, 2014

Starting July 1, 2014, the Energy Efficiency Requirements for Refrigeration Appliances went into enforcement in the United Arab Emirates (UAE). Only approved refrigerating appliances having the approved Energy Efficiency Labels are allowed to be traded/sold in UAE. The enforcement came into effect 6 months after the published announcement of the Energy Efficiency Standardization and Labeling (EESL) program for household refrigerating appliances regulation by UAE's sole standardization body ESMA (Emirates Authority for Standardization and Metrology) on December 31, 2013.

The enforcement applies to all household refrigerators, refrigerators-freezers and freezers with up to 1,500 liters capacity. This regulation does not apply to refrigeration appliances intended for industrial/commercial use or those intended to store items other than food.

UAE.S IEC 62552:2013 is the applicable standard for energy efficiency performance to be used together with product safety evaluation per UAE.S IEC60335-1:2011 & 60335-2-24:2010 under Climate class T condition 43 deg C.

The Energy Efficiency Standardization and Labeling (EESL) Program has been implemented from 2012 beginning with air conditioners. It is an MEPS (Minimum Energy Performance Standards) program combined with a mandatory labeling scheme for the 1-5 star categories of energy efficiency rating, 5 stars being the highest efficient rating.

How UL can help

Our Global Market Access team can help you achieve compliance by identifying applicable requirements for your specific product or technology feature to comply with current regulations in safety, EMC, wireless and energy efficiency. For more information, visit our Global Market Access website Global Market Access or contact our experts at gma@ul.com.
In September UL’s Suzhou and Guangzhou laboratories became SASO Energy Efficiency Accredited Laboratories with the specified testing scope covering air-conditioners, household refrigerators, refrigerator-freezers and freezers products.

Saudi Arabia Energy Efficiency Certification is a mandatory certificate under the control of the Saudi Standards, Metrology and Quality Organization (SASO). SASO is the sole standardization body of Saudi Arabia and in full charge of the formulation and implementation of all standards and measurements. In recent years, SASO has updated the standards of multiple imported electric appliance products. Following the implementation of the updating of the air-conditioner energy efficiency standards in 2013, SASO will adopt the new standard, SASO 2664/2013, to handle the refrigerator energy efficiency certification October 1, 2014. Effective January 1, 2015, Saudi Customs will prohibit refrigerators from entering into the Saudi Arabian market that fail to meet the new standards. Effective March 1, 2015, refrigerators that fail to meet the new standards will be not allowed to be sold in the Saudi Arabian market.

As the second largest source of imports for Saudi Arabia, China has millions of air-conditioner and refrigerator products exported to Saudi Arabia every year. In 2013, the total bilateral trade of China and Saudi Arabia amounted to USD 84.4 billion, up 14% year-on-year, which again hit a new historical high. Chinese export enterprises have an increasing demand for SASO certification.

Since UL Suzhou and Guangzhou laboratories are approved SASO Energy Efficiency Accredited Laboratories, Chinese manufacturers only need to send samples to either of the above two laboratories for testing and obtain the energy efficiency report provided by UL after passing the test. They can register online together with the application documents and get the Saudi Arabian Energy Efficiency Certificate issued by SASO. From now on, UL will help Chinese manufacturers greatly shorten the certification time of their products and accelerate products entering into the Saudi Arabian market.

UL Suzhou and Guangzhou laboratories are the key testing center of UL in China and have seamless product safety and quality testing capabilities. In addition to helping local Chinese manufacturers understand the requirements of SASO and apply for the related certificates more directly and quickly, UL is also the maker of multiple industry standards of the North American market and can provide related testing and certification for global market access. Recently, UL was also designated by the Certification and Accreditation Administration of China to become the testing laboratory to undertake tasks related to compulsory product certification. By virtue of its leading technical advantage in the global market, comprehensive service aptitude, and over 100-year authority, UL will continue to provide strong support for Chinese enterprises to expand domestic and foreign markets and help more “made-in-China” products go global successfully.

For more information please contact UL China, Henry.Ma@ul.com.
HVAC/R HIGHLIGHTS

By Brian Ferriol / Director, Global Appliances and HVAC/R

Plano, TX Lab Receives SASO Accreditations

In July UL's HVAC Performance Testing Lab located in Plano, TX received accreditation through IAS for the following four SASO Standards:

• SASO 2663:2012 - Energy Labelling and Minimum Energy Performance Requirements for Air-Conditioners
• SASO 2664:2013 - Energy Performance and Capacity of Household Refrigerators, Refrigerator Freezers, and Freezers
• SASO 2681:2013 - Non-ducted air conditioners and heat pumps -- Testing and rating for performance
• SASO 2682-2013 - Ducted AC and air-to-air heat pumps -- Testing and rating for performance

Upgrades and Added Capabilities to Meet Your Needs

UL is spending time and resources to develop sites and solutions to meet your evolving needs:

• August 2014 - New replacement air driers for facilities 4 & 5
• September 2014 - Air driers for facility 1, 2, 4
• September 2014 - Two new portable air flow stations for facilities 1 & 2
• October 2014 - Modify existing water skids on facilities 1 & 2
• October 2014 - New power meters for facilities 1, 2, 3, 4, 5, 6, 7
• November 2014 - Tower upgrade-new variable speed fan & controls
• December 2014 - Modify & upgrade facility 1, 2, 3 software
• December 2014 - Two new water skids for facilities 4 & 5
• March 2015 - Two new five-ton test chambers (8 & 9)

For more information please contact Rob.Ezold@ul.com
UL POOL AND SPA NEWS

NEWS:

UL has received CBTL accreditation for the following pool and spa related standards:

- IEC 60335-2-41: Particular requirements for pumps
- IEC 60335-2-51: Particular requirements for stationary circulation pumps for heating and service water installations
- IEC 60335-2-60: Particular requirements for whirlpool baths and whirlpool spas

This means UL can now issue CB certificates for most pool, spa and pump equipment.

For more information please contact appliancequote@ul.com

EVENTS:

International Pool | Spa | Patio Expo
November 5-7, 2014 | Orlando, FL | Booth #1314

Tap into UL expertise during this must attend event for the pool, spa and backyard industry professionals. Stop by the UL booth to discover the latest on:

- UL Testing and Certification Services
  - AHRI1160
  - EPA ENERGY STAR® for pool pumps
- Global Market Access Solutions
  - CB Certificates for most pool, spa and pump equipment
- Convert your existing products from another Third Party Certifier

To see show website, and to register, click here.

PODCAST:

SMART GRID APPLIANCES: RISKS AND CHALLENGES

As posted on Energy Efficiency Markets.com

Smart grid appliances offer opportunities for energy savings, but there are risks too. Energy Efficiency Markets interviews Thomas Blewitt, Director of Principal Engineers for the Appliance and Lighting industries at Underwriters Laboratories about some of the challenges that may arise when new users adopt smart grid appliances for the first time.

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