Appliance Advisor

Issue 2: 2019

Convenience and Safety Working Together: Unattended Operation for Residential Garage Door Operators

Written by: Steve Kuscsik, Principal Engineer – Motor Operated and Radiant Heating Products

An automatic garage door is a common convenience in many households. It allows easy access to your garage — and even your home - simply by the touch of a button on your key chain remote, your car visor, a keypad mounted outside the garage, or on a wall inside your garage.

With the large increase in smartphone use today, and the number of apps and connected devices continuing to increase, the garage door operator has not been left out. In fact, some view the garage door ecosystem as leading in terms of automation, convenience, security, and connectedness. Many garage door operators today have features that allow you to view the status of your garage door and open or close the door from your phone. This can offer additional convenience when a package is being delivered, when you need to let someone into the garage, or if the garage was mistakenly left open.

As with many conveniences brought about by technology, the safety implications also need to be considered. An automatically operated garage door can be a large and heavy moving object, with people moving about in the driveway and inside the garage. The risk of injury or entrapment underneath a garage door is real. Thankfully, the garage door and operator industry, the Consumer Product Safety Commission (CPSC), and product certification agencies, such as UL, have worked hard to help ensure that these products meet a common level of safety. The main safety Standard in the U.S. and Canada that addresses garage door operators is UL 325, the Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

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When a smartphone is used to close your garage door, the industry refers to this as "unattended operation." It is unattended in the sense that the person "operating" the door may not be in the immediate vicinity of the moving door. When a person operating the door is in the immediate area, they play a role in observing the door area, and deciding if it is safe to close the door. Unattended operation via mobile phone allows operation of the door from almost anywhere in the world that has a cellular or internet connection. The person pressing the "button" on the phone could be anywhere, from at the office to across the continent, and is not likely in the immediate area to observe the door and decide if it's safe to close or open the door.

This added convenience is embraced by industry and users alike. However, for this feature to work on residential garage door operators, it is required to be coupled with several additional safety features. These additional features are intended to provide an alert before the door closes, limit the number of attempts to close the door, and to work only on compatible door systems that have more modern safety features, such as photo eyes.

Several of the specific requirements are:

- Before the door can close, a visual alert in the garage must flash for at least 5 seconds. There are requirements for the visibility, flash rate, etc.

- Before the door can close, an audible alert in the garage must sound for at least 5 seconds. There are requirements for the sound level and frequency.

- If the door does not fully close due to an obstruction, activation of a photo eye, edge sensor or inherent reversal system after two attempts from the smartphone's unattended signal, the door operator system must lock out or ignore additional attempts to close from the unattended system. This is to prevent someone from a remote location repeatedly starting the door in the downward direction, when it is unsafe to do so. The ability to close the door via smartphone can be reset when someone in the area of the door presses a "local" control to move the door.

- Unattended operation is only permitted for vertically moving sectional garage doors – the most common type – and horizontally sliding doors. It is not permitted for one-piece overhead doors and swing type garage doors.

- An accessory device that is sold as an add-on to an existing garage door operator must explain in the instructions which door operators it is compatible with.

- Some accessories are required to have the visible and audible alerts built-in as part of the accessory that you buy and install.

Meeting these requirements is not just a good idea or a best practice. In fact, it is a mandatory part of the industry Standard UL 325 and is also established as part of U.S. Federal law according to the U.S. Consumer Product Commission (CSPC) code 16 CFR Part 1211.

Unattended operation is not limited to activation via smartphone. Many garage door operators also have timers that allow the user to set a time period whereby a door that remains open for a certain period of time will close automatically, without a user pressing the wall control or remote control. Since a person may not be in the immediate area when the door closes, this feature is considered a version of unattended operation. The operator system must have the same additional safety features as described above.

So, should you check before buying a device that claims to allow a smartphone to close your garage door? Absolutely! As the saying goes, "Not all devices are created equal." Some garage door operators have added these features built in to the main operator, so a separate device is not needed. There are also several accessory/add-on devices sold on the market that do in fact comply with all the proper safety requirements. However, there continues to be a number of accessory-type devices on the market that do not meet the essential safety requirements – the requirements that are industry standard and required by law. Many of these are sold online, some by well-known retailers.

How do you know if a device that provides smartphone control for your garage door has all the necessary safety features? This can most readily be verified by looking for a UL Mark on the garage door operator, or on the accessory if it is purchased separately. Although federal law provides alternative means of providing evidence of compliance, a UL certification Mark on the product is the most common way to tell. Manufacturers, door operator dealers and installers/service companies should ensure that the products they carry and install are properly certified for compliance with UL 325. Retailers who offer these products for sale should be sure that the devices they sell are in fact fully complaint with the regulations. If not, the reputation of the company and the safety of the users could be at stake. In short, look for evidence that the garage door operator or the accessory that you are buying clearly shows that it meets the UL 325 safety requirements.

After all, when it comes to your garage door, added convenience should not come at the sacrifice of safety. With properly compliant devices for unattended operation of the garage door, it doesn't have to!

Information about the CPSC requirements for residential garage door operators can be found at cpsc.gov and via this **direct link**.

Additional information about UL can be found at **UL.com** and and **here** to learn more about UL 325 Standard

Spotlight: Letter From Domenico

The appliances industry is evolving, so is UL.

Do you know that UL is the No. 1 certifier for UL and International Electrotechnical Commission (IEC) based standards globally? With a double-digit growth year over year (YoY) of issued CB certificates, more than tripling in five years, UL is also representing one of the most relevant notified bodies in the Household (HOUS) category – Appliances/Heating Ventilation and Air Conditioning (HVAC).

With the evolution of the industry toward global platforms, UL is able to provide easy access to the global market. Learn more on http://ul-certification.com/.

Stay tuned for the next steps of UL's global journey.

Domenico Chicco
Global Business Development – Appliances Industries

Upcoming Education and Training for the Appliance Industry

At UL's Knowledge Solutions, our goal is to help you develop safe, useful products that meet and exceed your customers' needs. Here you will find dozens of training courses taught by qualified instructors, both public workshops and online e-learning courses.

Public Workshops

Designing for Compliance to UL 60730: Automatic Electrical Controls for Household and Similar Use

Sept. 17, 2019, Northbrook, Illinois

Safety of Household and Similar Electrical Appliances; General Requirements, IEC 60335-1, 5.2 Edition

Sept. 24, 2019, Northbrook, Illinois

Online e-learning courses
Available anytime, anywhere
Diagnosing HVAC Lighting and Electrical Surge Failures
Energy Star® Requirements

UL Can Help Give You Increased Confidence in the Software Running Your Appliances

Written by: Vladimir Ivetic, Staff Engineer

In the past, accelerated life testing and end-of-line tests were suitable validation benchmarks for ensuring reliable appliances were being put into the marketplace. A power supply, motor load and switches were the control systems behind decades of appliance design. Today, embedded systems with software enable the innovations and features that the marketplace is expecting of new appliances. The challenges of ensuring today's appliances meet market demands for innovation, reliability as well as appropriate market requirements can be overwhelming.

UL's Embedded Systems Design Partner services help you tackle those challenges and increase confidence that your innovation won't be a barrier for market access. Our subject matter experts provide anything from ad hoc assistance of implementing embedded system design robustness in your new product development process to formal gap analysis and auditing of your software validation activities. We can help your architecture and features align with market requirements, which can help prevent delays and barriers to project launches. Whether provided though quick phone calls, sit down workshops, auditing or training engagements, our experts provide you with knowledge and assessments that are as formal or as informal you want. These services can be provided independently of product certification or bundled as a complimentary service.

Examples of UL's Embedded Systems Design Partner services include:

- A "health check" of your new product development of appliances with embedded systems

- Risk analysis exercises specific to your existing and future appliance features

- Connected Technologies discussion

- Requirement traceability auditing

- Software Quality Assurance services

- Regulatory and compliance questions

- Workshops, training, gap analysis or other services to suit your needs, customized for your engagements

For more information on the
Embedded Systems Design Partner Services,
contact us at ControlsInfo@ul.com

Your Guide to Navigating the Complicated Portable Spa Energy Efficiency Requirements

Written by: Roderick Manalac, Staff Engineer

The pool and spa industry experiences regular updates and developments regarding Energy Efficiency standards for portable electric spas. California, as the largest spa market in North America, is one of the few states that has created an energy efficiency standard for above-ground, portable electric spas.

In 2004, the California Energy Commission (CEC) set a maximum limit on how much power a spa may consume during standby mode. As a result, every portable electric spa — i.e., standard portable/storable spas, portable spas, exercise/swim spas, and combination spas — sold in California must be tested for Energy Efficiency under California Title 20 Section 1601(g). Oregon, Connecticut, Washington and Arizona have also adopted CEC's Title 20, while others have created their own similar requirements.

In 2014, the Association of Pool and Spa Professionals (APSP) created their own American National Standards Institute (ANSI)-approved standard for portable electric spa energy efficiency called APSP-14. Many states have adopted APSP-14 as their standard for energy efficiency. CEC and APSP began working to create a consistent set of requirements to test spas on a national level and, on June 1, 2019, CEC will adopt the test methods and requirements found in ANSI/APSP/ICC-14 2014 with minor modifications.

UL Services

With considerable experience in the pool and spa industry, and a respected reputation as a reliable third-party test laboratory, UL is prepared to help manufacturers evaluate their products and meet applicable safety standards. Details on these services and some of the requirements of CEC Title 20 and APSP-14 can be found below.

1. Both CEC Title 20 and APSP-14 allow spa manufacturers to conduct their own in-house Energy Efficiency testing. Under APSP-14, a manufacturer's test chamber/equipment must be audited on an annual basis by an independent, third-party certification body. The current CEC Title 20 does not require a manufacturer's test chamber/equipment to be validated; however, once CEC adopts APSP-14, specifically Appendices A, B, and C, spa manufacturers that do their own in-house testing will be required to go through a similar audit.

   UL provides a one-day service to audit a manufacturer's test chamber/equipment and determine compliance to the requirements of Appendices A, B and C of APSP-14. A successful audit allows spa manufacturers to conduct their own in-house testing to both CEC Title 20 and APSP-14.

2. CEC Title 20 and APSP-14 allow energy efficiency testing to be done by an independent, third-party test laboratory. As a certified test

laboratory under CEC's Modernized Appliance Efficiency Database System (MAEDBS), UL can test portable electric spas to the CEC Appliance Efficiency Regulations Section 1604(g)(2) and APSP-14. We can also submit the test data directly to CEC on behalf of the spa manufacturer by uploading test data directly to CEC's MAEDBS system. We offer single-source service. All manufacturers need to do is send us their product samples, and we will test to both requirements and submit data directly to CEC. Since APSP-14 is a self-declaration scheme, they do not have a database to input/store data of tested spas. Currently, the Energy Guide label is the only method to identify if the spa complies with APSP-14.

3. UL's test chamber is a modular design that can be modified to accommodate spas of all sizes and types — from small inflatable spas to large, 20-foot combination spas.

4. We can also conduct custom testing as requested by a spa manufacturer. For example, in addition to measuring the energy used during a spa's standby mode, we can measure the amount of energy consumed for a specified period of time, e.g., 24 hours, when the spa is used. The data is vital, and spa manufacturers may find them necessary to help with internal research, efforts to reduce manufacturing costs or increase production and future spa developments/designs.

With the support of a respected third-party laboratory, you can pursue the markets you want with the certifications you need. By only having to turn to one source, the process is easier than ever. Let us help you keep pace with the evolving requirements of the pool and spa industry to learn more visit **UL.com/poolandspa** or email **ApplianceInfo@ul.com**.

Everything You Need to Know about the Testing and Certification of Microbiological Purifiers to NSF P231

Written by: Jason Carlson, Staff Chemist

Microbiological contamination of potential drinking water sources is a serious health concern worldwide. Even in areas where safe water typically is available, circumstances may arise that require an individual to use a purification device to minimize their risk of exposure to disease-causing organisms. Fortunately, there are devices on the market that may protect you from all or some of these risks. National Sanitation Foundation (NSF) protocol P231 certification by a third party can help manufacturers substantiate a product's reduction claims and overall safety. Click this article to read more about NSF P231.

Read **More.**

GMA Corner

European Union – Four New Hazardous Substances Will Be Banned July 22, 2019

Region: European Union

Elena Andreula, EMEA Regulatory Program Expert

On June 4, 2015, the European Commission published a new Directive (EU) 2015/863 adding four additional substances, phthalates DEHP, DBP, BBP and DIBP, to the list in Annex II of Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU.

The new restriction become effective July 22, 2019, with the following maximum permissible concentrations:

1. Bis (2-Ethylhexyl) phthalate (DEHP) – 0.1%
2. Benzyl butyl phthalate (BBP) – 0.1%
3. Dibutyl phthalate (DBP) – 0.1%
4. Diisobutyl phthalate (DIBP) – 0.1%

Manufacturer's obligations

Manufacturers must comply with RoHS requirements if they utilize any of the restricted materials so that they:

- Ensure the design and manufacturer of the product complies with RoHS

- Set up a production control to ensure that the product remains complaint over time

- Draw up technical documentation demonstrating compliance

- Complete an assessment of conformity with the regulations

- Prepare a declaration of conformity

- Fix the European Conformity (CE) marking

How UL Can Help

UL is expertly qualified to assist companies in demonstrating their products meet the requirements of RoHS standards, providing testing for appliances.

These updates are for information purposes only and are not intended to convey legal or other professional advice.

UAE – RoHS: Four New Hazardous Substances Will Be Banned Jan. 1, 2020

Region: Middle East - United Arab Emirates

Elena Andreula, EMEA Regulatory Program Expert

According to Cabinet Decree No. 10 of 2017 notified by Emirates Authorities for Standardization and Metrology (ESMA), prohibitions on the use of four new substances will come into force in UAE on Jan. 1, 2020.

Until now, the following six substances have been regulated, implemented Jan. 1, 2018:

1. Mercury (Hg) – 0.1%
2. Lead (Pb) – 0.1%
3. Cadmium (Cd) – 0.01%
4. Hexavalent chromium (Vi) – 0.1%
5. Polybrominated diphenyl ethers (PBDE) – 0.1%
6. Polybrominated biphenyls (PBB) – 0.1%

The restriction of the four new substances, which start applying Jan. 1, 2020, concerns phthalates with the following maximum concentration permissible:

1. Bis (2-Ethylhexyl) phthalate (DEHP) – 0.1%
2. Benzyl butyl phthalate (BBP) – 0.1%
3. Dibutyl phthalate (DBP) – 0.1%
4. Diisobutyl phthalate (DIBP) – 0.1%

There are currently 11 different categories for which the RoHS Directive is applicable, and large and small household appliances are included.

Conformity assessment

It is necessary to obtain a Certificate of Conformity (CoC) under the ECAS or EQM program issued by an ESMA recognized Notified Body.

The conformity assessment can be provided by two options:

Option 1 under the ECAS Scheme
When a full product assessment for RoHS is not complete, the manufacturer submits a full RoHS test report for the complete product. If not available, they need to submit the RoHS test report for almost three high-risk, critical components identified through a risk assessment based on IEC 63000 or EN 52581 standards.

The RoHS test report shall be issued according to the normative standard series IEC 62321, and it shall be issued by International Organization for Standardization (ISO) 17025 accredited laboratory.

The appointed Notified Body checks compliance and issues the ECAS CoC, valid for one year.

Option 2 under the EQM Scheme
The manufacturer submits a risk assessment and technical file based on IEC 63000 or EN 52581, IEC 62476 and IEC 62474.

The appointed Notified Body checks compliance and conducts a factory audit then issues the EQM CoC valid for three years.

How UL Can Help

UL has been recognized by ESMA as a Notified Body (NB-0010) and is authorized to issue the ECAS and/or EQM CoC.

Middle East, G-Mark – Third Meeting of Gulf Cooperation Groups for Notified Bodies and First Meeting of the Economic Operators

Gabriella Mazzola, Global Market Access Enginnering Leader, Convenor of Working Group 3 of GSO Notified Bodies Cooperation Group for Low Voltage Regulation

As an exciting follow-up on UL's participation in the G-Mark program, UL participated as a major contributor in the third meeting of the GCC Standardization Organization (GSO) Notified Bodies Cooperation Group for the Low Voltage Electrical Equipment and Appliances Technical Regulation (GNBCG -LV) and relevant Working Group meetings held in Muscat, Oman, from April 1-3.

On April 2, the Omani capital also hosted the first economic operators workshop held by GSO. The goal was to share with manufacturers and importers the obstacles and inputs around the effective concepting and

implementation of GSO regulations and the Gulf Conformity Marking Scheme.

This is a great step forward in the success of Gulf Conformity Marking Scheme, and GSO marked itself as a modern, open and sustainable organization.

The discussion with economic operators was mainly focused on the challenges with the regulations already implemented. Additionally, discussions also included the inclusion of manufacturers and their associations in regulatory works for the publication of the new Technical Regulations announced by GSO, which include among others: RoHS technical regulation, electromagnetic compatibility (EMC) and machinery.

UL is also actively participating in the regulatory works as well.

More to come, stay tuned.

How UL Can Help

UL is actively and effectively participating in GSO Notified Bodies cooperation group for Low Voltage Equipment (LVE) Regulation. We can help support your goals through expert advice to determine if your product is within scope or not. We can also help provide technical expertise: a worldwide net of CB testing laboratories and qualified staff can help deliver G-Mark certificates in an effective and reliable way.

Learn more about G-Mark services **here.**

Middle East, G-Mark – New Gulf Conformity Tracking System

As the G-Mark program implementation continues to improve, GSO has developed and launched a new version of the Gulf Conformity Tracking System.

The tracking system is an online platform for traceability of approved products and certificates. It is also one of GSO's strategic projects to support the implementation of the published Gulf Technical Regulations.

This system started in July 2016 with an updated version launched March 24, 2019.

The new system allows data sharing with authorities and regulatory organizations within the seven countries that are part of the GSO. Registered product pages online are linked to a QR code, which is part of the mark of conformity called Gulf Conformity Tracking Symbol (GCTS) to be placed on certified products.

What is changing
GCTS and QR codes are specific for the product and will not be affected by the certificate life cycle — expire/renewal/change. Scanning the QR allows consumers to check the details of the products circulated on the market — public view — while only authorities are able to check the certificate status.

The GCTS symbol to be placed on products and packaging has had its shape revised. The new symbol does not require the number of the Notified Body under the Gulf Conformity Mark. As a future implementation, economic operators will be able to create a profile to check their details,

certificates status and to download the GCTS symbols for their products. Note: Validity of the certificates will not be affected by the implementation of the new system.

Conformity marking
New shape of the marking to be placed on products:

Previous GCTS

**Current GCTS
(certificate number not included)**

Involved products:
Categories that require mandatory conformity assessment in the form of Gulf Type Examination certificates with the involvement of an accredited GSO Notified Body include:
1. Domestic electrical fans
2. Refrigerators, freezers and other refrigerating or freezing equipment
3. Centrifugal clothes dryers and clothes washing machines, including machines which both wash and dry
4. Food grinders and mixers, fruit or vegetable juice extractors
5. Toasters
6. Electrothermic hair-dressing apparatus and hand dryers
7. Domestic electric heating apparatus

8. Microwave ovens
9. Other ovens; cookers, cooking plates, boiling rings, grillers and roasters
10. Electric instantaneous or storage water heaters and immersion heater
11. Electric smoothing irons
12. Plugs, socket outlets, adapters, cord extension sets and chargers
13. Air conditioners

How UL Can Help

UL is an accredited Notified Body for Gulf Type Examination. We actively participate in GSO meetings for Notified Bodies to be constantly updated on new requirements and their implementation.

Sultanate of Oman – Energy Efficiency and Labeling Requirements for Air Conditioners

Elena Andreula, EMEA Regulatory, Program Expert

Ministerial Decision No. 107/2018 adopted GCC Standard GSO 2530/2016 as an obligatory Omani Regulation for energy labeling and minimum energy performance requirements for air conditioners.

Starting July 25, 2019, manufacturers intending to ship products into the Sultanate of Oman must have them tested according to the standard GSO 2530/2016, register these products in the Omani Energy Efficiency Ratio (EER) System and obtain the permit to use the Omani energy efficiency labeling.

The conformity assessment requirements and certification path are now under construction by the Directorate General of Standards and Metrology (DGSM).

With the implementation of energy efficiency and labeling, Oman adds to the list of Gulf countries that have already implemented or are implementing similar regulations.

Country	MEPS and EEL requirements for household Air Conditioners
Oman	Under implementation — GSO 2530/2016
Saudi Arabia	Mandatory and already implemented — SASO 2663/2018
UAE	Mandatory and already implemented — UAE.S 5010-1.2016
Bahrain	Mandatory and already implemented — Ministerial Decree No. (31) of year 2017
Qatar	Mandatory and already implemented — QS 2663/2017
Kuwait	Under implementation — KWS 1893:2018
Yemen	Not yet regulated

How UL Can Help

UL is expertly qualified to assist companies in demonstrating their products meet the requirements of energy efficiency standards and providing testing for appliances in accredited laboratories.

We continue to monitor the energy efficiency and labeling standards and regulations as test methods move toward finalization. In addition to providing testing and certification in accredited laboratories, we keep our customers aware of changes by becoming one trusted source of compliance information and support.

Saudi Arabia, SABER - Expansion of Products Included in GCC Technical Regulation for Low Voltage Electrical Equipment and Appliances.

Federico Picco, Saudi Regulatory Program Expert

The SABER system, the new certification platform for Saudi Market access, is constantly being updated by Saudi Standards, Metrology and Quality Organization (SASO). Starting April 1, 2019, the GCC Technical Regulation for Low Voltage Electrical Equipment and Appliances was introduced on the SABER platform. This made the registration and approval of product included in the List (2) of the regulation, i.e., which require G-Mark certificate, on SABER a mandatory step to get Saudi market access.

The list of product categories included in the GCC Technical Regulation for Low Voltage Electrical Equipment and Appliances has now been expanded.

The new list includes, among others: fans, range hoods, freezing boxes, freezing cabinets, freezing display counters, potable water coolers, ice cream-making machines, beverage cooling machines, dry cleaning machines, rotating engines, lining engines, coffee makers, humidifiers and air humidifiers and kitchen machines.

While these newly added product categories do not need a valid G-Mark to be registered and certified on SABER, they still require evaluation and approval by a SABER Conformity Assessment Body (CAB) to be successfully registered and exported in Saudi Arabia.

How UL Can Help

UL already has four CABs accredited on the SABER system that have in their scope the GCC Technical Regulation for Low Voltage Electrical Equipment and Appliances: Americas, Europe, Middle East and Asia Pacific.

UL also has Arabic speaking staff who are experts in SASO's processes, online systems and requirements.

China, CCC Marking Requirements for Gas Appliances

Daniel Chen, Greater China Program Manager

According to the official notification from the State Administration for Market Regulation (SAMR), "Notice of the State Administration of Market Regulation on Relevant Matters Concerning the Implementation of the 'Decision of the State Council on Further Regulating the Catalogue of Production Licenses for Industrial Products and Simplifying the Approval Process' Guo Shi Jian Zhi Jian No. 190, 2018," the following three product categories of gas appliances will be transferred from the catalog of Production License to CCC Catalogue soon:

- Domestic gas cooking appliances, e.g., domestic gas stove; gas-electric dual-purpose cooker; integrated gas stove, e.g., integrated gas stove with two or more functions of cooking, sucking and fume, baking,

disinfection (cleaning), storage, etc.

- Domestic gas instantaneous water heaters, e.g., heating water heaters, condensing water heater

- Gas-fired heating and hot water combination boilers, e.g., gas-heating boilers, including condensation type; household heating gas fast water heater; household dual-purpose gas fast water heater.

However, so far there is no effective date of this change, and SAMR/CNCA (Certification and Accreditation Administration of the People's Republic of China) are still working on the detailed implementation plan and the relative implementation rules for those above product categories.

Once it is implemented, all the above gas appliances will be required to have CCC Marks before being manufactured, sold, imported or used in other business activities.

How UL Can Help

UL can help provide a one-stop solution covering testing and agency services for gas appliances customers to access the Chinese market. We have a strong relationships with designated certification organizations and designated testing organizations for CCC Scheme, plus more than 15 years of experience working with CCC agency services.

Australia – Energy Label and MEPS, New GEMS Determination 2019 for Air Conditioners Up to 65 Kilowatts

Chian Haw Yong, ASEAN Global Market Access Lead

Department of the Environment and Energy, with following Decision Regulation Impact Statement (RIS) issued in Q4 2018 by Council of Australian Governments (COAG) Energy Council, signed and issued Greenhouse and Energy Minimum Standards (GEMS) for air conditioners up to 65 kilowatts with determination 2019 on March 25, 2019. This revokes and replaces the previous GEMS determination 2013 for air conditioners and heat pumps. A one-year transition period, started April 1, 2019, gave until April 1, 2020, for suppliers to comply to the new GEMS determination 2019..

Major changes of the GEMS 2019 as compared to GEMS 2013:
Adopt the seasonal energy efficiency ratio (SEER) standard for rating air conditioner energy efficiency
- Remove the existing Energy Rating Label and replace it with the new Zoned Energy Rating Label


Old Label **New ZERL Label**
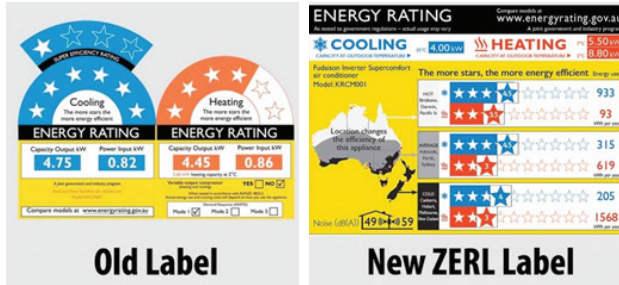
- For double-duct portable air conditioners, reduce the MEPS and apply the Zoned Energy Rating Label
- For single-duct portable air conditioners, apply MEPS to single duct portable air conditioners and apply the Zoned Energy Rating Label (tested to AS/NZS 3823.1.5)
- Air conditioners registered under the new determination will be able to display the new Energy Rating label

Changes proposed under Decision RIS but not covered by GEMS 2019:
- Include MEPS for air conditioners greater than 65 kilowatts capacity under the energy efficiency regulations — currently specified in Australia under the National Construction Code (NCC) — and increase the MEPS levels for such air conditioners. It is expected to be covered by another GEMS determination
- Alignment of Australia and New Zealand requirement. New Zealand has yet to produce a revised legislation document, but it is expected to be adopted soon

New ZERL:
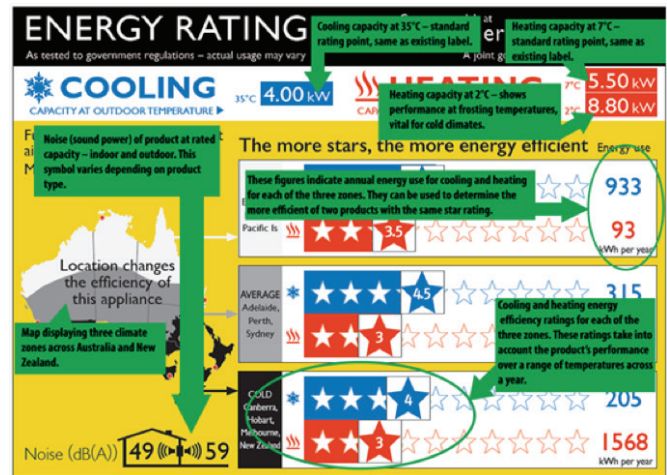
- Energy efficiency — both cooling and heating — and capacity rating according to three different temperature climate zones
- Tested noise levels required to be stated, but without a specific limit
- Cooling capacity rated for 35 degrees Celsius
- Heating capacity is rated a 7 degrees Celsius, with an additional 2 degrees Celsius representing frosting temperature

How UL Can Help:

- UL laboratories that ISO 17025 accredited to relevant AS/NZS energy testing standards can issue test reports that are accepted by regulator for energy label registration
- UL engineers have carefully studied the GEMS determination 2019 and can provide regulation training to air conditioner manufacturers
- UL CBTLs offer IEC CB certification services and being a Certification Office that issues Australia and New Zealand safety certificates of approval (COAs), UL support manufacturer to comply with the Regulatory Compliance Mark (RCM) which is the mandatory Australian & New Zealand RCM compliance requirements.

For more updates on the new GEMS determination 2019 for air conditioners, please click **here** to read more.

Changes to Peru Energy Labeling Requirements

By Abel Primo, Certification Officer Manager, Mexico, Peru

On April 7, 2018, new Peru Energy Labeling Requirements were established for various appliance and lighting products. Originally, these requirements were set to become effective on April 8, 2019, but the official date has since been postponed. However, this postponement has not stopped UL from preparing for the road ahead. We were ready for this April effective date and, as a result, manufacturers have the opportunity to meet these requirements in advance. Below is a table with the new effective dates:

These requirements state products must be evaluated as specified in the applicable annexes and must be marked with the new energy label with certification issued by an accredited CO. Applicable products that were in the market prior to the effective dates must also comply with the new energy labeling requirements at the point of sale.

With energy efficient products gaining traction around the world and many countries implementing new regulations or updating their existing requirements to better address these new products, manufacturers only stand to benefit from acting today. UL can help by conducting testing in support of your compliance needs. In addition to testing, we can also issue certification and conduct the necessary market surveillance, which will be valid for compliance with the above effective dates.

Product Category	Effective Date
Lamps for domestic use and similar uses for general lighting	Nov. 3, 2019
Three-phase asynchronous or induction electric motors with squirrel cage rotor	Dec. 3, 2019
Refrigeration appliances for domestic use	April 1, 2020
Washing machines for domestic use	April 1, 2020
Tumble dryers for domestic use	April 1, 2020
Air conditioning equipment	April 1, 2020
Instantaneous water heaters	April 1, 2020
For ballasts and boilers where no Certification Office (CO) is established	The effective date will be 360 days after the first Certification Body is accredited and published in the Peruvian official gazette

We remain confident in our ability to support your market access efforts into Peru. In preparation for the original effective date, we built a successful service path to this key market and have already demonstrated our ability to deliver certificates to large, global manufacturers. Let us help you achieve compliance now, so you do not have to face any potential delays down the road.

To learn more about these new regulations and how UL can help keep your market access plans moving forward, email us at **ApplianceInfo@ul.com**.

Standards Corner

By Joe Musso, Standards Program Manager

Click here for Standards information

Register for "What's New" to receive emails twice a month indicating the new published UL Standards, Outlines, and Proposals.

STP 325 – Door, Drapery, Gate, Louver, and Window Operators and Systems

A set of 11 proposals were circulated for ballot Q3 2018. Nine of the topics reached consensus, with six topics receiving comments, and moving to recirculation. The recirculation work area opened in CSDS on April 19, 2019, closing May 20.

STP 484 – Dehumidifiers and Room Air Conditioners

A new proposal topic covering a revision to the dielectric strength test requirements was circulated for Standards Technical Panel (STP) ballot in April 2019. It reached consensus without any comments and will be published in May.

STP 507 — Electric Fans

The task group formed to continue work on a proposal submitted from the U.S. Consumer Product Safety Commission (CPSC) to include a new thermal condition performance test for unattended fans, continues to make progress. CPSC is leading the task group (TG), which completed development of a proposal for consideration by the STP and the public. The proposal was discussed at the STP 507 Meeting held Feb. 26, 2019, in Clearwater Beach, Florida. As a result of the meeting, the TG is working to further refine the proposal based on input received during the meeting. Once the TG refines the proposal, it will be circulated for preliminary STP and public review during Q2 2019.

STP 745 — Electric Tools

The first editions of the Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 3-12: Particular Requirements for Transportable Threading Machines, UL 62841-3-12, and the Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery – Safety – Part 3-14: Particular Requirements for Transportable Drain Cleaners, UL 62841-3-14 were published April 5, 2019.

STP 858 – Household Electric Ranges

Two new proposals, including an update to the surface element turn-off requirements and a clarification for the off marking and heat setting requirement, were posted for ballot Q4 2018. Both topics reached consensus, with several comments received on the surface element topic; that topic was recirculated — opened in CSDS — April 19, 2019, closing May 20.

A New Joint Task Group Has Been Formed

A joint task group (JTG) has been formed to develop requirements that address the potential hazards associated with user interface (UI)/actuators/components/sensors that are intended for use on household electric and gas cooktops, either independently or as a system. Using a system approach, the proposed requirements are intended to focus on the interoperability and interaction of these devices with the end-use appliance, so there is not an increased risk of fire when these devices are used with the appliance. Examples of devices include, but are not limited to, after-market appliance controls, voice-operated controls and remote. software updates using the UL 5500 requirements.

STP 982 – Motor-Operated Household Food Preparing Machines

A series of nine new proposal topics were posted for STP ballot in Q3 and Q4 2018. Topics address requirements related to the following:

- Clarification of applicability of self-holding protector abnormal operation test
- Smart-enabled machines
- Vacuum blender
- Feed opening accessibility
- Electric knife unintentional operation
- Interlocked blender cover opening equivalent area
- Food processors with momentary contact switch
- Input test
- Soup-making blenders

Comments received during STP ballot of the above topics were discussed at the STP 982 meeting held April 25, 2019, at UL's Northbrook office. Recirculation of topics with revisions based on the STP meeting discussion will open in Q2.

STP 1017 — Vacuum Cleaners, Blower Cleaners, and Household Floor Finishing Machines

A new revision cycle is underway. Work is ongoing, with a series of Technical Harmonization Committee (THC) meetings being held. Once the compiled draft proposals are ready, the next step will be to circulate the document for review by the consensus bodies and public.

STP 2595 — General Requirements for Battery-Powered Appliances

The new, third edition of UL/CSA 2595, General Requirements for Battery-Powered Appliances, has been developed and was circulated for preliminary STP review in 2018. The new edition will integrate, update and clarify a number of requirements, related to maximum rated voltages, use of general purpose batteries, general conditions of test requirements, normal charging of lithium-ion systems, power switches, and products powered or charged by universal serial bus (USB) power sources. A significant number of comments were received, which are currently being considered by the THC. It is anticipated that the proposed new edition will be posted for ballot in the second quarter of 2019.

STP 60335-2-40 — Household and Similar Electrical Appliances – Safety – Part 2-40: Particular Requirements for Electrical Heat Pumps, Air Conditioners and Dehumidifiers

The international harmonization working group (CANENA 61D Work Group 10) addressed preliminary review comments received on the initial draft of the proposed new, third edition. Upon completion of that work, the proposed new edition was circulated for STP ballot with a closing date of Feb. 5, 2019. The proposed new edition reached consensus with comments. The working group is now holding a series of meetings to review and address all ballot comments prior to final recirculation.

Spotlight: IoT Security Top 20 Design Principles

In this white paper, you'll learn some simple steps that can be taken to increase the security of connected systems. These outlined steps are organized with the most important requirements first, and it is recommended that these are addressed as the initial priority for all aspects within a system: product, system, cloud and app.

Download the white paper **here**

Spotlight: UL's New myUL™

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2019 Tradeshows

Contact UL industry experts if you would like to arrange an in-person meeting at any of the listed tradeshows or if you have any general questions. We're here to help.

Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2019.
Sept. 21-25, Chicago, Illinois

Low GWP Refrigerant Update for HVAC Equipment

Brian Rodgers, UL Principal Engineer HVAC

A disruptive change is currently underway in the HVAC refrigerant market. Driven by environmental concerns, global promoters are advocating the phase-out of traditional refrigerants in favor of new alternatives with a lower global warming potential (GWP). The impact of these new rules will dramatically alter heating and cooling in a wide range of industries over the course of the coming years. UL can help demystify this confusing topic with custom training modules detailing ASHRAE 15, ASHRAE 34 and UL 60335-2-40 in addition to hands-on advisory and benchmarking services.

Click **here** to read more about it.