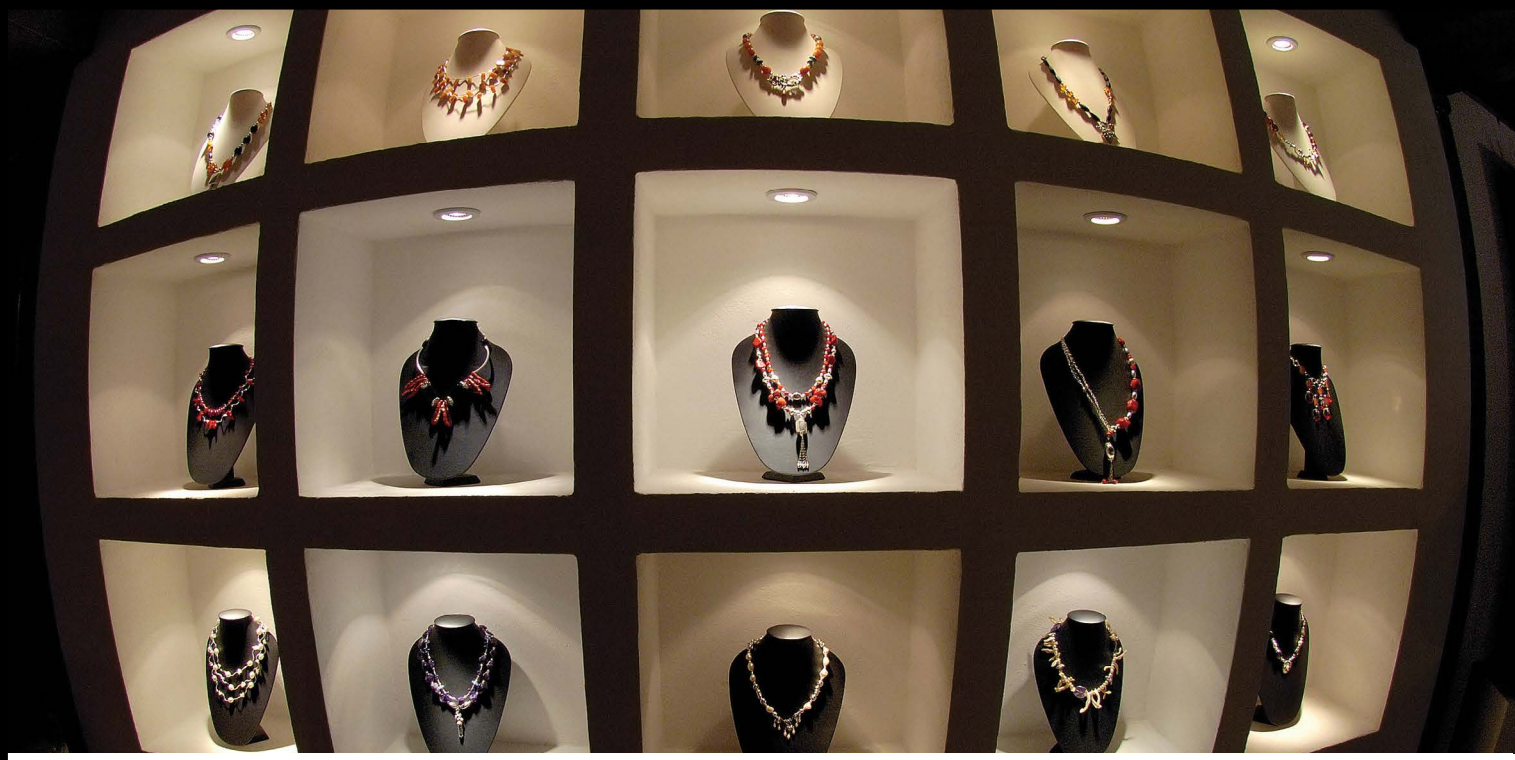
Furnishings Focus

Winter • 2013 / 2014



Wired Cabinets and Commercial Retail Store Displays – What's the Difference? Part 1 – Wired Cabinets

By Eugene Wirth */ Principal Engineer*

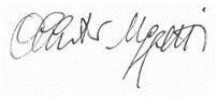
There is a wide variety of furnishings used for commercial displays. Over the next three issues of *Furnishings Focus*, Eugene Wirth, UL's Principal Engineer for Furnishings and Manufactured Wiring Systems, will delve into the different types of displays and their safety requirements. In the first part of this series, we will explore wired cabinets, which are covered by UL 65.

continued on page 4

A Letter from Alberto Uggetti

I hope this New Year finds you rested and in good health. This year, 2014, marks 8 months since UL's furniture industry team was formed and we are making great strides globally. In the past year we joined China's National Technical Committee for furniture as an observer member, became a pilot certifier for Europe's FEMB standard for furniture, and entered a relationship with Advance Testing & Engineering in Holland, Michigan USA to provide expanded furniture testing services in North America. All of this means that UL's furniture industry team is poised to offer our customers more services, more industry insight, and more offerings this year. To find out more about our services, visit our new furniture industry webpage at ul.com/furniture. And as always, we encourage you to reach out and stay connected.

Email us at furnishingsfocus@ul.com to join our distribution list and send us your feedback.



Alberto Uggetti

Vice President and General Manager
UL Furniture Division

CONTENTS

SIGN UP TO RECEIVE THE NEWSLETTER BY EMAILING US AT FURNITURENA@UL.COM

Mattress Testing Offers Manufacturers the Ability to Differentiate Products

By Daniel Tigges */ Business Development Manager*

People are concerned about the environmental impact of their mattress and are increasingly aware of the health risks posed by potentially harmful chemicals used in mattress manufacturing. Since adults spend one-third of their time in bed (children under 3 spend up to 20 hours a day), they want a safe product that also poses minimal impact to the environment.

UL ECO INSTITUT, located in Cologne, Germany, helped pioneer latex and mattress testing in the mid-1990s in Europe, when there were no statutory provisions concerning the composition or materials used for latex mattresses. UL ECO-INSTITUT (then eco-Umweltinstitut), participants gathered stakeholders who dealt with the production and processing of natural latex. This resulted in the founding of QUL - Quality Association for Environmentally-Agreeable Latex Mattresses (Freiburg, Germany) - with members and partners including latex foamers, mattress manufacturers and dealers, and others.

The QUL label, co-developed by UL ECO-INSTITUT, certifies that mattresses meet only the strictest requirements with parameters that include volatile organic compounds (VOC), pesticides, health-hazardous heavy metals, PCP and nitrosamines.

Since the development of European standards for latex mattresses, UL ECO-INSTITUT has grown to be a worldwide leader in latex and mattress testing, and has developed its own proprietary label. The eco-INSTITUT label is a stringent testing program for mattresses and bedding products made from latex or non-latex materials. The program verifies that certified products meet stringent chemical emissions and chemical content criteria.

Products that can be tested to the standards include:

- Mattresses: inner spring, latex, (viscoelastic) foam and other polyurethane-type foam
- Bedding: sleeping bags, pillows, duvets, quilts, wadding
- Bed linen
- Coverings for mattresses, toppers, covers and cushions

When testing materials used in mattresses for the eco-INSTITUT label, UL tests an extensive list of chemicals, including:

- Hundreds of VOCs—volatile organic compounds (including styrene, butadiene, flame retardants, formaldehyde, adhesives, and other harmful chemicals).
- Relevant POPs—persistent organic pollutants
- Heavy metals, such as lead, antimony, cobalt, copper and mercury
- Customary pesticides, such as Captafal, Perthan, Permethrin, Telodrin and Toxaphen
- Formaldehyde
- Phthalates

UL works in coordination with many European organizations to develop sustainable standards in mattress manufacturing. The tests specified by these standards go above and beyond the current legal requirements in Germany and the European Union, as well as those standards for chemical exposure set by the United States Environmental Protection Agency (US EPA).

continued on page 10

Wired Cabinets ... continued

Traditional store display cases, often called showcases, are the typical furnishings you would find in a jewelry store. These cases are covered by UL 65 Wired Cabinets and are illuminated cabinets that may feature open (shelving) or be enclosed. Showcases and UL 65 Wired cabinets are directly tied to Article 410.59 of the National Electric Code (NEC).

For all wired cabinets, the same basic safety requirements apply. When the wired cabinet is connected to the building power system by a cord and plug, the NEC and UL65 have specific limitations which the cabinet manufacturer and retailer need to be aware of. The cabinet is limited to either a 15 or 20 Amp circuit. When plugged in at the store location, the building circuit must match the wired cabinet rating of either 15 or 20 Amps. The cord that powers the cabinet must be a 12 AWG wire size, jacketed hard service type and be provided with a ground conductor. The power supply cord is only allowed to extend a maximum of 12 inches beyond the cabinet. The limited cord length means the store must have a permanently installed receptacle at the cabinet installation point.

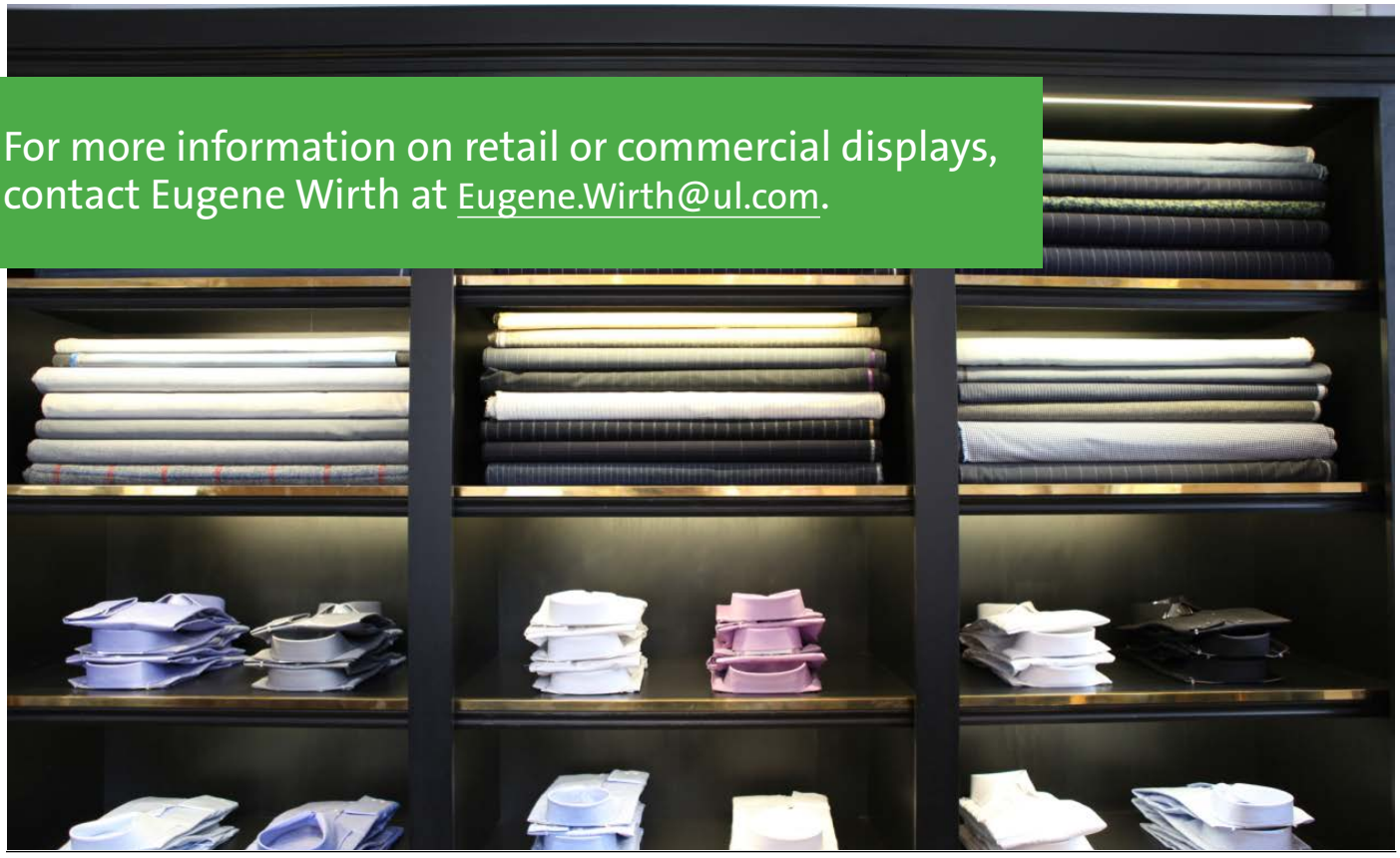
Up to six wired cabinets can be interconnected by cord and plug connection. The receptacle (cord connector) and plug must be the locking type and the receptacle cannot extend beyond the cabinet. When plugged together, the two cabinets may not be separated by more than 2 inches (50.8mm).

The standard limits additional connections. A cord connected wired cabinet may not have convenience outlets for additional electrical equipment, such as a point of sale cash register. Each cord connected wired cabinet must be self-contained, such that a power supply in one wired cabinet cannot power luminaires in additional wired cabinets.

A permanently connected wired cabinet connected with a UL Listed conduit or UL Listed cable may be interconnected with a conduit or cable, and additional convenience receptacle outlets can be provided. The installation requirements are limited by the NEC requirements and local code requirements.

In our next article we will explore Commercial Retail Displays which are covered by UL 962, Standard for Household and Commercial Furnishings. ■

For more information on retail or commercial displays, contact Eugene Wirth at Eugene.Wirth@ul.com.



UL is Approved Certifier for FEMB Pilot Furniture Standard

The FEMB (Fédération Européenne de Mobilier du Bureau) is in the pilot stage of a multi-attribute sustainability standard for office furniture. Similar to BIFMA's level standard in the US, the new FEMB standard will consider the environmental impacts of furniture so that specifiers and purchasers can evaluate the products they choose on a variety of environmental and social criteria, such as energy consumption in the production, life-cycle assessment or chemical emissions. Products included in the standard are office furniture, but the principles can be used for other types of furniture. UL has been selected as an approved certifier for the pilot standard. If you wish to participate in the pilot, or find out more information about the program, please contact Daniel Tigges at Daniel.Tigges@ul.com. ■

If you wish to participate in the pilot, or find out more information about the program, please contact Daniel Tigges at Daniel.Tigges@ul.com.

How to Power your Electronic Devices from your Desk

By Bruce Bohren */ Senior Staff Engineer*

UL introduced a new standard that outlines requirements to address powering low voltage devices from your desk or work surface. The new requirements are detailed in UL 2851, Outline of Investigation for Low-voltage Distribution Systems and Equipment for Desk and Similar Work-Surface Installations.

Due to the widespread use of computer tablets, cell phones, iPods, Bluetooth products and other low voltage devices that need charging and low power to sustain operation, manufacturers have created charging and power systems to ensure these devices can be used continuously at your work station. These systems bring the power connections up to the desk surface allowing great ergonomic access and convenience for the user. The systems may have charging pads, docking stations, lights and even speakers. They may also provide a convenience outlet into which other conventional products can be plugged. The low voltage power system is limited to Class 2 power levels, which provide for a reduced risk to the user from electrical fire and shock hazards.

The power requirements are for products that fall within the Class 2 power level [30 V ac (42.4 V peak) or less, or 60 V dc or less].

The specific details of the outline are as follows:

The outline covers low voltage power distribution systems and equipment intended for installation and use in dry locations, other than hazardous (classified), in accordance with the National Electrical Code (NEC), NFPA 70.

The low voltage systems covered by the outline are intended to be connected to a premises branch circuit rated 600 V or less.

The system consists of:

a) A single supply connection to the premises branch circuit;

b) A power supply with Class 2 output(s) operating at 30 V ac (42.4 V peak) or less, or 60 V dc or less;

c) Interconnecting system (such as a track, rail, conductors or cords) for connecting the Class 2 source to low voltage equipment; and

d) Low voltage equipment electrically connected to the interconnecting system.

continued on page 8

UL News

Product Mindset

UL has released the 2013 Product Mindset, which is the only global study of its kind and highlights key findings and insights about the ways manufacturers and consumers think and make decisions about products.

For the first time ever, key research findings and priority rankings from The Product Mindset are available for you to analyze, segment and explore through a new interactive tool.

Review highlights from UL's third annual global study, providing an in-depth examination of the issues and priorities related to how products are made, sold, bought and used. Click here to download a copy of the Product Mindset and view a video of the report's highlights. ■

UL Signs Agreement with Shenzhen Furniture Association

UL's furniture industry team and the Shenzhen Furniture Association (SZFA) signed a Memorandum of Understanding (MOU) in October 2013 to establish an agreement for testing and promoting awareness of UL capabilities to SZFA members. The organizations will work together to raise awareness UL and SZFA's capabilities for the Chinese furniture industry.

Shenzhen, China is known as a center for furniture production in China, and is recognized for the high quality product produced there. SZFA assists the industry by providing design and testing services for manufacturers, training and education for the industry, hosting major industry tradeshows, and developing industry publications.

The MOU signing ceremony took place on October 17, 2013 and included a presentation, an educational seminar for manufacturers and a speech by Sara Greenstein, president of UL Environment. UL and SZFA look forward to working together and expanding awareness of UL furniture services in China. ■

Regulatory Updates

Specialty Sleep Association Recognizes Product Emissions Testing and UL ECO-INSTITUT Label in Mattress Programs

The Specialty Sleep Association (SSA) recently completed an update to their SSA Environmental & Safety Program®, which sets criteria for mattresses that use sustainable materials, as well as a company's approach to sustainability. The revised program will include four levels of achievement (Level I-IV) and include attributes such as the use of natural or bio-based materials, the achievement of certifications for fabrics or foams used in the product, Volatile Organic Compound (VOC) emissions testing, and participation in carbon footprinting surveys, in addition to meeting regulatory requirements.

UL can help manufacturers meet program requirements through testing to the UL ECO-INSTITUT standard for foams, Oeko-Tex standard for fabrics and/or foams, as well as VOC emissions testing of the product. Contact Derek Marsaa at Derek.Marsaa@ul.com for more information.

The Italian Technical Commission for fire behaviors

The Italian Technical Commission for fire behaviors has developed project U39001430 "Reaction to fire of fire-retardant coatings applied on wood materials - Test method for classification purposes", which replaces the UNI 9796:1998.

The future standard specifies the test method for the classification of fire-retardant coatings in function of their ability to modify the reaction to fire performance of wood-based materials used indoors. The final phase of public inquiry ended November 13th, 2013. To learn more, visit: www.uni.com/index.php?option=com_wrapper&view=wrapper&Itemid=900 (in Italian only). ■

continued from page 6

The system may also include AC convenience receptacles rated 125 or 250 V, 15 or 20 A, meeting the dimensional requirements of ANSI/NEMA WD 6, Wiring Device - Dimensional Requirements.
The low voltage systems covered by the outline are typically intended for installation in or on work surfaces such as desks in office environments (home or commercial). These requirements do not apply to locations such as kitchen counters, bathrooms, or similar locations that involve use near plumbing fixtures or heating surfaces.

Click here to view additional details on this new certification:
http://www.ul.com/global/eng/pages/solutions/standards/accessstandards/catalogofstandards/standard/?id=2851_1

For additional questions, please contact us at FurnitureNA@ul.com.

UL Standards Corner

View Standards information: http://www.ul.com/global/eng/pages/solutions/standards/ or register to receive standards updates twice a month indicating the new published UL Standards, Outlines, and Proposals at: http://www.ul.com/global/eng/pages/solutions/standards/accessstandards/whatsnew/register/

UL 962 – Household and Commercial Furnishings

- 3rd edition published July 7, 2008
- Latest revision on August 5, 2013 included the following changes in requirements: (1) Revision of Enclosure Requirements for Products Powered by a Class 2 Power Supply and (2) Addition of Supplement for Bed Heating Systems
- Proposed 4th edition went out for preliminary review on November 22, 2013 with a due date of January 17, 2014. This proposed Fourth Edition of the Standard for Safety for Household and Commercial Furnishings, UL 962, includes the following major changes: (a) Separation of some product types such as massage tables and chairs and powered table systems into new supplements as these products have requirements unique to their product type; and (b) Combination of household and commercial requirements into the main body of the standard to improve readability.

UL 2040 – Folding Rollaway Tables

- 1st edition published October 3, 2000
- Latest revision on July 15, 2013 included changes in the Requirements for Markings
- There is no current UL Standards Activity

UL 65 – Wired Cabinets

- 7th edition published October 26, 2010
- Latest revision on September 16, 2013 included Terminology Changes and Clarification of Requirements
- There is no current UL Standards Activity

UL 1286 – Office Furnishings

- 5th edition published August 28, 2008
- Latest revisions on September 19, 2013 were issued to incorporate additional requirements for video display (flat panel TV) mounting on office furnishings.
- Two proposals went out for preliminary review on September 9, 2013 with a due date of October 9, 2013. The proposal related to (1) Additional Requirement for Vertically Adjustable Surfaces, and (2) Revisions to Align with the New Edition of BIFMA X5.9, Storage Units. The proposals will be sent out for ballot in the future.

UL 1678 – Household, Commercial, and Professional Carts and Stands for Use with Audio/Video Equipment

- 5th edition published August 10, 2012. The 5th edition of UL 1678 was issued to address flat panel video display technology and to incorporate the requirements of the Standard for Tall Institutional Carts for Use with Audio-, Video-, and Television-Type Equipment, UL 1667.
- The title of the Standard was changed during the 5th edition to: UL 1678 Household, Commercial, and Institutional-Use Carts, Stands and Entertainment Centers for Use with Audio and/or Video Equipment.
- Prior to the 5th Edition of UL 1678, the requirements for Tall Institutional Carts were included in the Standard for Tall Institutional Carts for Use with Audio-, Video-, and Television-Type Equipment, UL 1667.
- Upon adoption of the 5th edition of UL 1678 on January 31 2014, UL 1667 will be withdrawn
- New proposal went out for ballot September 20, 2013 with a due date of October 21, 2013. The proposal related to the Revision of Requirements for the Simulated TV Test Fixture with Respect to Weight of Product and Center of Gravity. The intention is that the proposal will be reworked and will be recirculated in the future.

continued from page 3

In addition, UL offers extensive testing and advisory services for mattresses and bedding, including:

- Emission analyses in the test chamber according to ISO 16000 series
- Compound analyses for heavy metals, AOX/EOX, biocides, phthalates, flame retardants, etc.
- Odour testing according to harmonized standards
- Damage analysis
- Certification according to the criteria of the eco-INSTITUT label, Blue Angel (RAL-UZ 38/117/119/130/148) or QUL (Quality Association for Environmentally-Agreeable Latex mattresses)
- Toxicological and ecological expertise
- Advice on product development and optimisation
- Testing and evaluation according to further national and international criteria

UL is part of the advisory board of QUL and an authorized chemical testing body for the QUL label. UL's proprietary eco-INSTITUT label has also been recognized by the Specialty Sleep Association (SSA) in the United States, whose goal of transparency is to make it easy for customers see what's in their mattress to be able to identify safer, healthier mattresses.

For more information on UL's services, contact Daniel Tigges at Daniel.Tigges@ul.com. ■

Come See Us

Upcoming Tradeshows/Events

IMM Cologne
Jan, 13-19 Cologne, Germany
Attending

BIFMA 360 Leadership Meeting
Jan. 27-29 Scottsdale, AZ
Sponsor

ISPA Expo
Mar. 26-29, New Orleans, LA
Exhibiting Booth #1701

UL Environment Webinars

LEED v 4: Transformation through Transparency, Health and Achievement

LISTEN NOW (in English)

After a primarily structural upgrade in LEED 2009, the USGBC has successfully pushed ahead with building transformation by introducing new programs, standards, concepts and importantly, increased scrutiny and transparency to be used in greening our buildings of the future through release of LEED version 4. Join UL Environment as we discuss major changes to the rating programs.

This presentation is for LEED practitioners as well manufacturers, specifiers and industry associations and those who want to know more about the sustainable industry.

Published by UL

UL LLC.
333 Pfingsten Rd
Northbrook, IL 60062

W: ul.com
T: 1.888.485.4733 or 770.933.0638

Share your feedback and sign up to receive the newsletter at:
FurnitureNA@ul.com