Product Certification and Verification

Submitted by: United Laboratories

**Joint Regulatory Advisory Committee on
Electrical and Electronic Equipment
Meeting with Industry
Chicago, United States
25–26 May 2011**

Product Certification and Verification

Ken Boyce, UL

**APEC Joint Regulatory Advisory Committee
Electrical and Electronic Equipment**

**Day with Industry: "Ensuring Safety"
May 25, 2011**

US Safety System

The US Safety system is based on key pillars:

- **Standards**

- **Certification (Listing)**

- **Enforcement and approval**

UL – there at the start

- **UL's origins at 1894 World's Fair**

- **Testing focused on hazards from the new technology: electricity**

- **UL established a scheme for product testing, surveillance, and certification**

3

Development of Requirements

- **UL began issuing product safety standards in 1903**

- **Interested parties (including UL) worked to establish the National Electrical Code governing safe installation**

- **UL involves stakeholders in its open product standards development process**

4

"Voluntary standards"

- **Term used to describe standards not directly mandated by national regulations**

- **They may be imposed by other parties – local authorities, buyers, etc.**

- **Developed with input from manufacturers, regulators, supply chain consumers, etc.**

(U L)

5

Certification advances the concepts in standards

Standards provide a common set of requirements for design, testing, and certification of products

→

Certifications provide objective assessment of conformance & measures to address ongoing conformance

(U L)

6

Benefits of proactive conformance

Manufacturers design conforming products

Certifiers verify the conformance via testing and surveillance

Market benefits from proactive conformance and ability to shape the content of products

7

Certification supports acceptance by authorities

- **Product certification allows easy identification of conforming products for regulatory officials and approvers**

- **This supports efficient verification of compliance with regulations (e.g. US OSHA for occupational safety) or compatibility with model Codes (e.g. the NEC)**

8

Certification provides assurance

- **Certification signals conformance to the marketplace – buyers, retailers, consumers**

- **Especially critical for proactive mitigation of safety**

- **Supports insurance and other stakeholders in managing risk**

9

Certification supports a "level playing field"

- **Certification facilitates fair trade by establishing a minimum threshold of requirements**

- **This supports confidence in critical, core product attributes – for example, safety**

- **Products then differentiated on benefits but not on core attributes like safety**

10

5

Certification serves as the front line for oversight

- **Effective market conditions make the need for government regulation lower**

- **Government can address additional actions when needed**

- **Voluntary standards for evolving markets can be adjusted more nimbly than government regulations**

11

Coordination with global and regional schemes

- **Harmonized standards offer broader deployment**

- **UL active in standards harmonization in targeted areas identified by industry**

- **Agreements such as the IECEE CB Scheme facilitate certification & import/export**
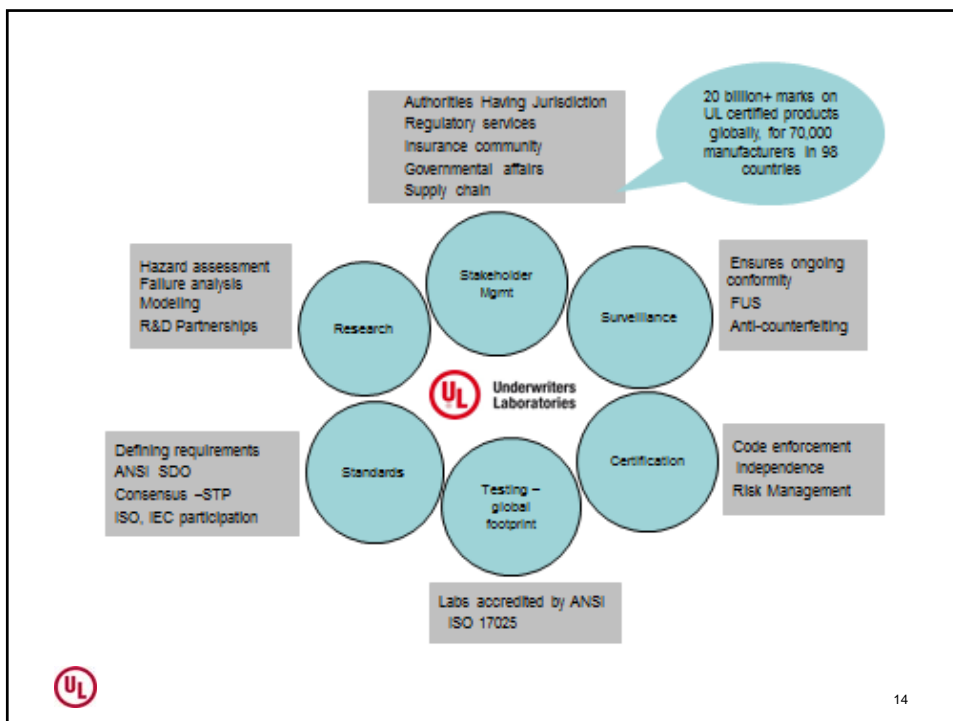
12

Closed-loop monitoring

UL provides closed-loop monitoring of overall safety, including:

- **Market surveillance**
- **Updating standards via field experience**
- **Interacting with industry on trends**
- **Holistic, proactive interaction with regulators and code making bodies**

13

14

Conclusion

- **Certification to voluntary standards has been very effective in the US**

- **Provides mechanism for validation and approval of safe equipment designs**

- **UL's experience as a standards developer, testing agency, and certifier has been very positive**

15

Thank you.

Ken Boyce
847.664.2318
kenneth.p.boyce@us.ul.com

16