

# Importance of Conformity and Certification in Life Safety

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Safety Design in Buildings

Riyadh Conference

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## **Course Description**

Introduction to life safety for building materials and systems. The presentation will focus on understanding the stake holders in the built-environment, importance of conformity, certification regional best practices, learning lessons and life safety.

## Presenter

#### Jonathan J. Gonzalez

Project Engineer, UL -- Underwriters Laboratories Middle East

My Experience started as a Product Safety Engineer in Fire Protection for Building Materials and Systems at Underwriters Laboratories' Global Headquarters in Northbrook Chicago, USA and have been in the life safety industry since. I have has been involved in numerous certifications projects, while working with international, building and certification standards. I hold a Bachelors in Construction Engineering from North Dakota State University and have recently moved to the Middle East region to UL's regional headquarters in Dubai.

## Learning Objectives

- 1. Importance of Certification
- 2. Standards and Codes
- 3. Stake Holders in the Built Environment

## 4. Learning Lessons

The purpose of this presentation is to convey technical knowledge to the conference participants.

The presentation also contains slides with text that summarises the content of the presentation and the main learning objectives.

These may be used to update CPD records for relevant organisations including the Chartered Institute of Building (CIOB).

## **IMPORTANCE OF CERTIFICATION**

## **Understanding Certification**

Certification is the practice in which consumer product(s) undergo performance/quality testing to meet or exceed safety qualifications as specified by regulations, government and building codes officials, standard committees etc.





## **Third Party Certification**

- Third Party Certification is required by the regulating bodies
- Third Party tests and certificates the products
- Third Party, upon certification of product, allows use of trademark on product to indicate product compliance
- Certification requires factory visits and ongoing QA/QC program
- Third Party label used by building regulators to determine code compliance



### **Importance of Certification**

The importance of certification and conformity



**Increases Safety** 

Improves QA/QC

**Monitors and Controls** 



### STANDARDS AND CODES

## **Product Requirements**

#### Codes

- Minimum construction requirements
- Indicates where and when to install product

#### **Standards**

- How to evaluate/test product
- Indicates non-compliance



## **U.S. Codes - Development Organizations**

**International Code Council (ICC)** 

International Association of Plumbing and Mechanical Officials (IAPMO)

**National Fire Protection Association (NFPA)** 







#### **Standards**

- Contain requirements for safety and performance
- Reflect the input of interested parties
  - officials, manufacturers, end users
- Accreditation (ANSI)
  - Accredits standards developers
  - Ensures accurate standards
- Code References



#### Standards' Writers



American National Standards Institute (ANSI)



American Society for Testing and Materials (ASTM)

Canadian Standards Association (CSA)





American Society of Mechanical Engineers (ASME)

American Water Works Association (AWWA)



International Association of Plumbing and Mechanical Officials (IAPMO)

National Fire Protection Association (NFPA)

Underwriters Laboratories Inc. (UL)







### **Stake Holders For Built Environment**

**Designer** 

**Manufacturer** 

Installer

AHJs (QCD/FPD) & insurance

User

Maintenance/ Facilities





### What does this mean for Building Safety & Security?

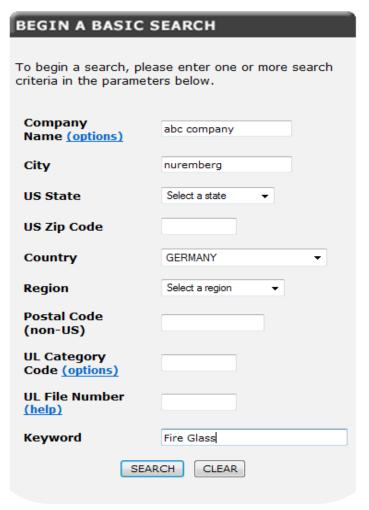
Building Owner / Manager Insurer / Financier **Authority** Having Jurisdiction Architect Specifier / GC Manufacturer Installer (Historically) 100+ 0



## **LEARNING LESSONS**

## **Certification Databases (Listing)**









Searchable



Company



Region



Product type/Standard



File/Certificate Number



Fire rating/performance



Keywords



# Online Fire Service Training – Worldwide Partners www.ULfirefightersafety.com



Lightweight Collapse



Horizontal Ventilation



**Basement Fires** 



PV Firefighter Safety



Vertical Ventilation & Suppression



Effective Tactics with FDNY and NIST



#### Fire Service Worldwide: Get Involved





ULfirefightersafety.com (6,000+ hits per month)

@UL\_FSRI

Modernfirebehavior.com (30,000 hits per month)



(1.2M Impressions)

facebook/ulfirefightersafety



(5.4M Impressions)

youTube/ulfirefightersafety



(264,000+ view 1.1M min. watched)





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## **THANK YOU!**