

Field Evaluation Services Newsletter

UPCOMING
TRADE
SHOWS

& ELECTRICAL
& WORKPLACE
INCIDENTS

LABORATORY
EQUIPMENT
NEWS

CUTTING
EDGE
TECHNOLOGY
NEWS

TOP
SAFETY
RECALLS

April 2016



TÜVRheinland®



FIELD EVALUATION OF LABORATORY EQUIPMENT

by Calvin Lee



Test, measurement and laboratory equipment spans many types of industries and applications. Equipment used in these applications include:

- Laboratory medical and industrial sample analysis
- Semiconductor cleanroom and analysis laboratories
- General test and measurement applications
- Industrial control applications

Specific equipment types include:

- Microscopes, AFM, Electron / Ion / Plasma / Optical
- Reaction chambers
- Environmental chambers
- Device testers
- Amplifiers and power supplies

In addition to electrical fire and shock hazards covered by Field Evaluations, this type of equipment may also include other hazards like ionizing and non-ionizing radiation, lasers, RF, gases / chemicals, hazardous / toxic materials, high pressure and hazardous sound sources. Some of the challenges with this equipment are the many custom applications and un-marked components such as PCBs, HV power cables, transformers, power supplies, etc.

Proper documentation may be limited and the end user is likely unfamiliar with the internal construction of the equipment. Therefore it may require communication with the manufacturer/designer of the equipment. Sometimes individual component evaluation and testing is needed in case of unlisted critical components.

One of the primary safety standards for test, measurement, and laboratory equipment is UL61010-1, the latest version of this standard does a good job at covering these types of hazards. Other Standards may apply, including NFPA70 (US National Electrical Code.)

The Quest for 1001 Lab Safety Questions

LABORATORY EQUIPMENT NEWS

Researcher loses arm in UH lab explosion; blast cause not yet known

Top Product Safety Recalls

[Toshiba Recalls Laptop Computer Battery Packs](#)

[CE North America Expands Recall of Fan Heaters](#)

[Gamewell-FCI Recalls Fire Alarm Panels](#)

[Panasonic Recalls Lithium-ion Laptop Battery Packs](#)

[Potential Hazards from Improper Installation of Lighting Retrofit Kits](#)

[IKEA Recalls Floor and Table Lamps due to Shock Hazard](#)

[Franklin Fueling Systems Recalls Gas Station Hose/Swivel Fitting Sets](#)

[Brunton Outdoors Recalls Battery Packs](#)

[Coleman Recalls Flashlights](#)

[Polaris Recalls RZR Recreational Off-Highway Vehicles One Death Reported](#)

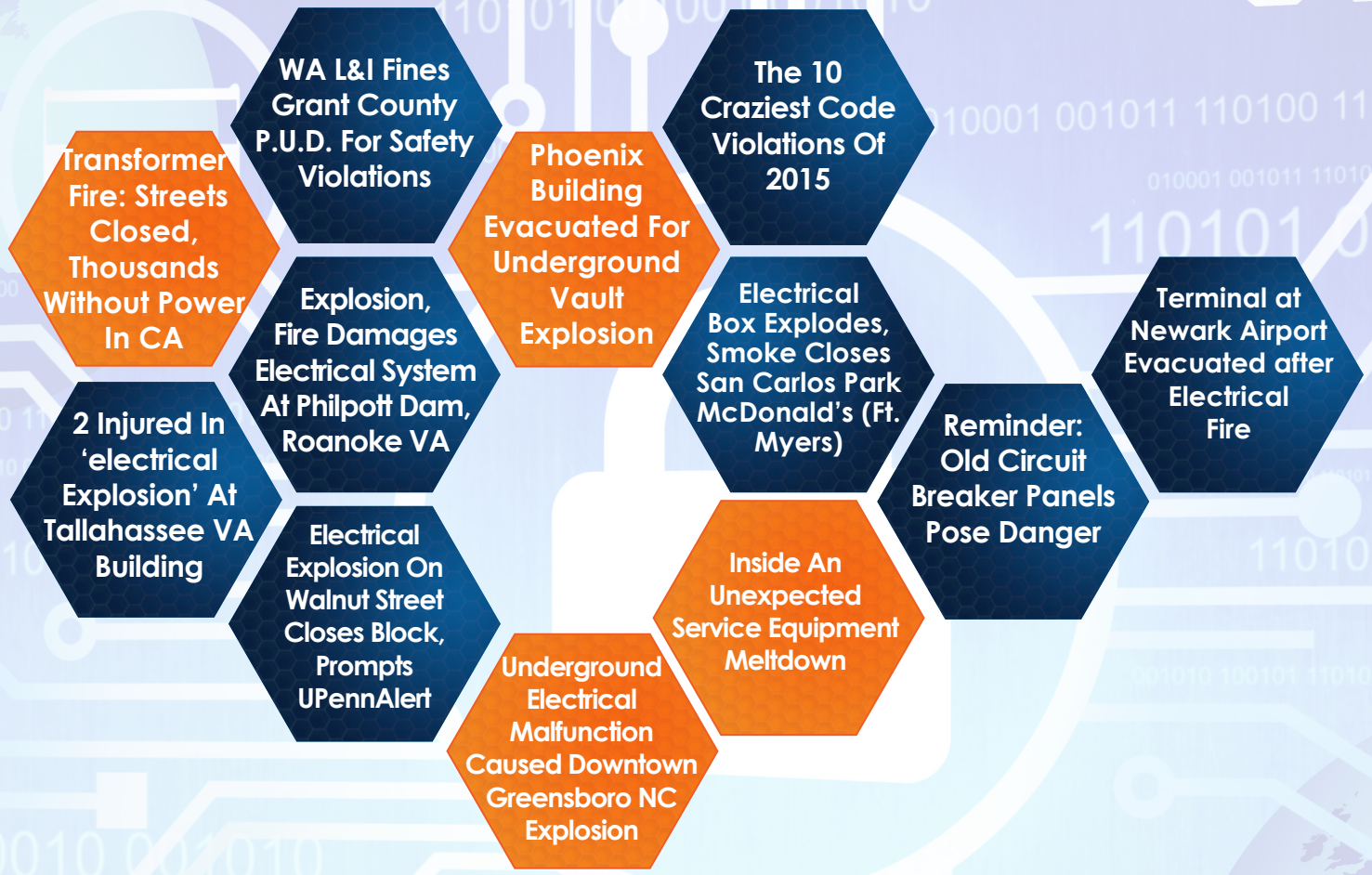
Malfunction Hazard

Explosion Hazard

Fire/Burn Hazard

Shock Hazard

ELECTRICAL & WORKPLACE INCIDENTS



RESOURCE LINKS



29CFR1910.303A
SUBPART S
ELECTRICAL

OSHA/US DOL BULLETIN:
CERTIFICATION OF
WORKPLACE PRODUCTS
BY NATIONALLY
RECOGNIZED TESTING
LABS

OSHA:
INDUSTRIAL
MACHINERY
IS ELECTRICAL
EQUIPMENT

FEDERAL LAWS FOR THE WORKPLACE

OSHA: ALL
EQUIPMENT MUST BE
NRTL APPROVED

NRTL
PART 1

NRTL
PART 2

29CFR1910.399
DEFINITIONS

**TECH
GAGETS**

3D Printed Rotor Blade May Help Us More Effectively Harness The Wind

New Bipedal Non-Humanoid Robot from Google X

A driving experience of a different kind the F 015 Mercedes Benz

Intelligent Robot Gives A VERY Creepy Answer In TV Interview

Flirtey Makes First Urban Drone Delivery In FAA Test

Watch Power-lifting Exoskeletons In Action

ArcaBoard Updates Show Hoverboard In Action In New Video

World's First Solar-powered Airport Is No Longer Paying For Electricity

Would You Eat 3D Printed Cheese? Dutch Researchers Hope So.

What Will California Do With Too Much Solar?

Carbon Nanotubes Line Up To Form Highly Aligned, Wafer-scale Films

First Came The Breathalyzer, Now Meet The Roadside Police "Textalyzer"

Graphene Could Help Generate Power From Rain

Unlimited Clean Energy With The Wavestar Machine

Twisted Light Could Dramatically Boost Internet Speeds

Fukushima Nuclear Plant Activates Underground 'ice Wall'

What If Central Park Was Surrounded By Glass Walls?

Meet The New Ransomware That Knows Where You Live

Robot Surgeons Coming Soon, To A Future Battlefield

How Does Quantum Levitation Work?

Perovskite Solar Cell Material Can Recycle Light To Boost Efficiency

9 Month Old Baby Saved By 3D Printed Heart

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**CUTTING
EDGE
TECHNOLOGY
NEWS**

**CUTTING
EDGE
TECHNOLOGY
NEWS
CONTINUED**

**BIOLOGY AND
TECHNOLOGY**

**Implanting
Fake Brains In
Real Brains To
Prevent
Seizures**

**Inferile
Mice Give
Birth, Thanks
To 3D-Printed
Ovaries**

**3D Printing
To Fix Damaged
Cartilage**

**A Computer
Could Soon Tell
You When You're
Going To Die**

**An Implant
To Prevent
Alzheimer's**

**Scientists
Grow Chickens
With Dinosaur
Legs**

**Full Genome
Sequencing Is
Now Available...
And Affordable**

**Computer Use
Could Help
Predict Early
Stage
Alzheimer's**

**Woman Sues
Claiming Surgeons
Removed
Wrong Rib**

**MIT
Scientists Find
Alzheimer's 'Lost
Memories' May
Be
Recoverable**

**Case Of
Mad Cow
Disease Found
In France**

**ASTRONOMY AND
TECHNOLOGY**

**Stephen
Hawking Plans
To Build An
Interstellar
Ship**

**Titan's
Tallest
Mountain
Provides Clues
To What Lies
Beneath**

**International
Space Station
Facing Power
Short Circuits**

**A Ground
Based
Telescope Spots
Possible Earth-
Like Planet**

**SpaceX's
Dragon Soars
As Its Rocket
Lands: An Epic
Spaceflight
In Photos**

**"Laser
Cloak" Could
Hide Earth From
Evil Aliens**

**Icy Spots
On Moon
Suggest That Its
Axis Has
Tilted**

**Is
There Really A
9th Planet?**

**Rocket Lab
Qualifies Its 3D
Printed Rutherford
Engine For
Flight**

Book an Appointment

**UPCOMING
TRADE
SHOWS**

Florida IAEI	May 4 - 7	St Augustine, FL
Virginia IAEI	June 27 - 28	Glen Allen, VA
NC Association of Electrical Contractors	July 14 - 16	Myrtle Beach, SC
Georgia IAEI	July 15 - 17	Buford, GA
NC IAEI Chapter Convention	August 14 - 16	Atlantic Beach, NC
IAEI SW	August 21 - 25	Tucson, AZ

Will you be attending one of these upcoming shows?
Set up an appointment with us today!

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