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## ENGINEERING STANDARDS UPDATE

Standards are serious business, but this newsletter isn't.

### Topics this month:

- **May is Building Safety Month**
- **MasterFormat® 2014 Update**
- **Engineers Behaving Badly**
- **Engineering Processes – Big Changes Ahead**
- **Manufacturers Behaving Badly**
- **LANL Standards Issued in April**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

The Standards Homepage: <http://engstandards.lanl.gov/>

### MAY IS BUILDING SAFETY MONTH

Many readers should care about this because we support the LANL Building Official (LBO) in some way. As clarified last month, LBO doesn't stand for large bowel obstruction (nor does Pu = prolapsed uterus -- but we could have an invent-a-medical-disorder contest for NSSB, RLUOB, and NMMSUP...).



“Founded by the International Code Council (ICC), Building Safety Month (BSM) is celebrated by jurisdictions worldwide during the month of May.

Building Safety Month is a public awareness campaign offered each year to help individuals, families and businesses understand what it takes to create and sustain safe and sustainable structures. The campaign reinforces the need for adoption of modern, model building codes, a strong and efficient system of code enforcement and a well-trained, professional workforce to maintain the system.

The campaign is presented by the ICC and its 57,000 members worldwide along with a diverse partnership of professionals from the building construction, design and safety community. Corporations, government agencies, professional associations, nonprofits and more come together to support Building Safety Month because they understand the need for safe and sustainable structures where we live, work and play.

This year's theme is *BUILDING SAFETY: Maximizing Resilience, Minimizing Risks*. Each week of Building Safety Month spotlights a specific area of building safety. Weekly themes:

- [Week One // May 5-11, 2014](#) Code Officials: Keeping Fire in its Place
- [Week Two // May 12-18, 2014](#) Code Officials: Helping Homeowners Weather the Storm
- [Week Three // May 19-25, 2014](#) Code Officials: Surround Your Building with Safety
- [Week Four // May 26-31, 2014](#) Code Officials: Building A Brighter, More Efficient Tomorrow..."

## MASTERFORMAT® 2014 UPDATE

MasterFormat is the Construction Specifications Institute's schema for numbering spec sections. LANL's used it forever, though ten years ago the famous 16 divisions became 48 and we converted our in-house LANL Master Spec sections to the appropriate new numbers and associated titles. MasterFormat is now on a biennial revision cycle and just released the 2014 edition.

Not huge, but perhaps the biggest change was adding "selective demolition" sections to most divisions. That means the 02 4115 *Electrical Demolition* section we invented will become the more recognized 26 0505 *Selective Demolition for Electrical* on its next revision. Also, we updated Division 40 from "Process Equipment" to "Process Interconnections" on the website.

There are other minor changes that don't affect our masters, but projects that create master spec sections where LANL lacks them must follow the new, tweaked organization. That can be found from the link that's just above our [spec index](#) labeled: "[CSI MasterFormat Spec Numbers & Titles Index](#) (~175 pgs) -- use when creating project specs not in LANL Masters". CSI also sells MasterFormat annotated to help users choose the best number for the desired work result. Only nerds buy them, and I have one.

## ENGINEERS BEHAVING BADLY

Or maybe corporations behaving badly and shooting the engineers. Maybe you heard about this since it was in the news for weeks (though not as much as the endless Flight MH370 coverage).

- [13 GM traffic deaths tied to 57-cent part](#) AP
- [GM suspends 2 switch engineers, seeks NASA safety help](#) USA TODAY  
GM won't say if they'll be fired over faulty switch problems, sets up whistle-blower program

## ENGINEERING PROCESSES – BIG CHANGES AHEAD

Gurinder's says he's retiring this summer and he's very rarely mistaken about anything. Instead of slacking off like some might, he's cranking out a bunch of work. Below are the first of many documents he'll finish in the next three or four months. If you're interested in his position -- which is a good job for a very detail-oriented, analytical thinker -- please talk to Mel Burnett who's the Office Director for Conduct of Engineering (and soon, since neither he nor I need more work).

The following Administrative Procedure was posted on the Conduct of Engineering Office, [Engineering Processes](#) page in SharePoint. Please refer to the notification on these for instructions on training and implementation. For questions about APs, please contact [Gurinder Grewal](#) at 667-3667.

<b>AP-341-516-R3</b>	<b>Operability Determination</b> Course#44028	<b>Issued:</b> 4/24/14
<b>AP-341-402-R0</b>	<b>Engineering Document Management in Operating Facilities</b> Course#25002	<b>Issued:</b> 5/1/14
<b>AP-341-901-R4</b>	<b>Performing Vital Safety System Assessments</b> Course#44255	<b>Issued:</b> 5/1/14

## MANUFACTURERS BEHAVING BADLY

At the very least this seems unethical.

<b>Certifications and</b>	3
<b>Compliances:</b>	3
• NEC/CEC:	4
Class I, Division 1 & 2, Groups A, B, C, D	4
Class II, Division 1, Groups E, F, G	5
Class II, Division 2, Groups F, G	5
Class III	
(see listings for specific Cat. Nos. suitable for Groups A or B)	<b>R</b>
• UL Standard: 686	
• CSA Standard: C22.2 No. 30	
<b>Standard Materials:</b>	



Lesson ID: 2014-SR-SRNS-05 [Savannah River Nuclear Solutions (SRNS)]

Date: 3/31/2014 Contact: SRS Suspect Item Program Manager - Tom Tracy (803) 952-9245

Statement: This Operating Experience Report is being issued to engineering organizations that purchase or may purchase equipment that is required/desired to be UL listed.

Discussion: In October 2013, Savannah River Site (SRS) ordered a part off a manufacturer's cut sheet which referenced a UL Standard. The particular application required the part to be UL Listed and the reference to the UL Standard was thought to mean that the part was UL Listed.

Analysis: When the part was received, there was no UL stamp or UL marking of any kind. The manufacturer was contacted and responded that, just because a UL Standard was referenced on the cut sheet, it did not mean the part was UL Listed.

It meant that the part was manufactured to the requirements of the UL Standard but it was not independently certified by UL. According to the manufacturer, if the part had been certified by UL, the catalog would have explicitly stated that the part was UL Listed and it would have been appropriately marked.

In discussions with UL tech support, they confirmed this practice. They said that many manufacturers purchase UL Standards and produce parts built to the standard; however, they do not pay UL to independently certify the part (which is what would have been required for the part to become "UL Listed").

Recommended Actions: Impact to Engineers

When purchasing parts that are required/desired to be UL Listed, we need to ensure the catalog or other vendor documentation explicitly states that the part is UL Listed.

If there is any doubt or the documentation is unclear as to the UL pedigree, contact the manufacturer and confirm the part is UL Listed prior to ordering.

## **LANL STANDARDS ISSUED IN APRIL**

None, though we revised the LANL Building Official organization chart for all the personnel changes discussed last month. A revision to ESM Chapter 16 IBC Program and other improvements are planned for May and beyond.

## **DOE TECHNICAL STANDARDS ACTIONS**

DOE [Tech Stds](#) activity this past month: None, so we're not alone.

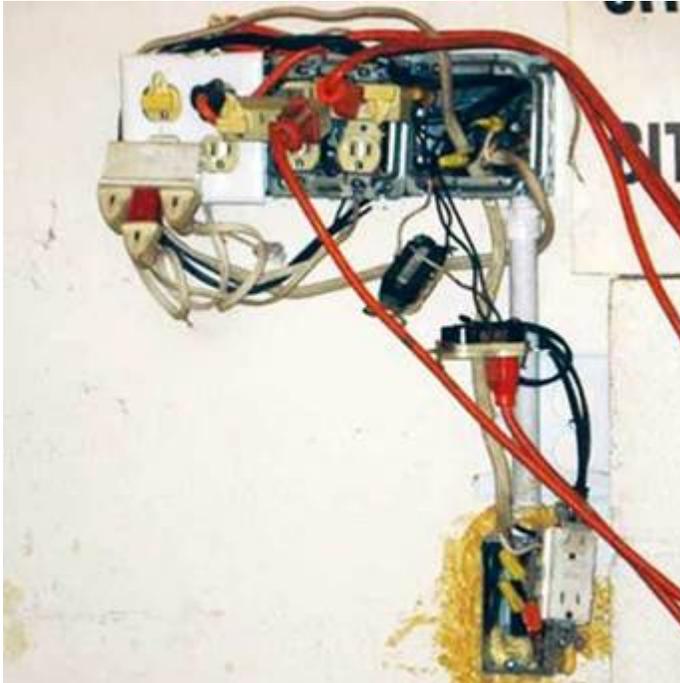
## **WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED**

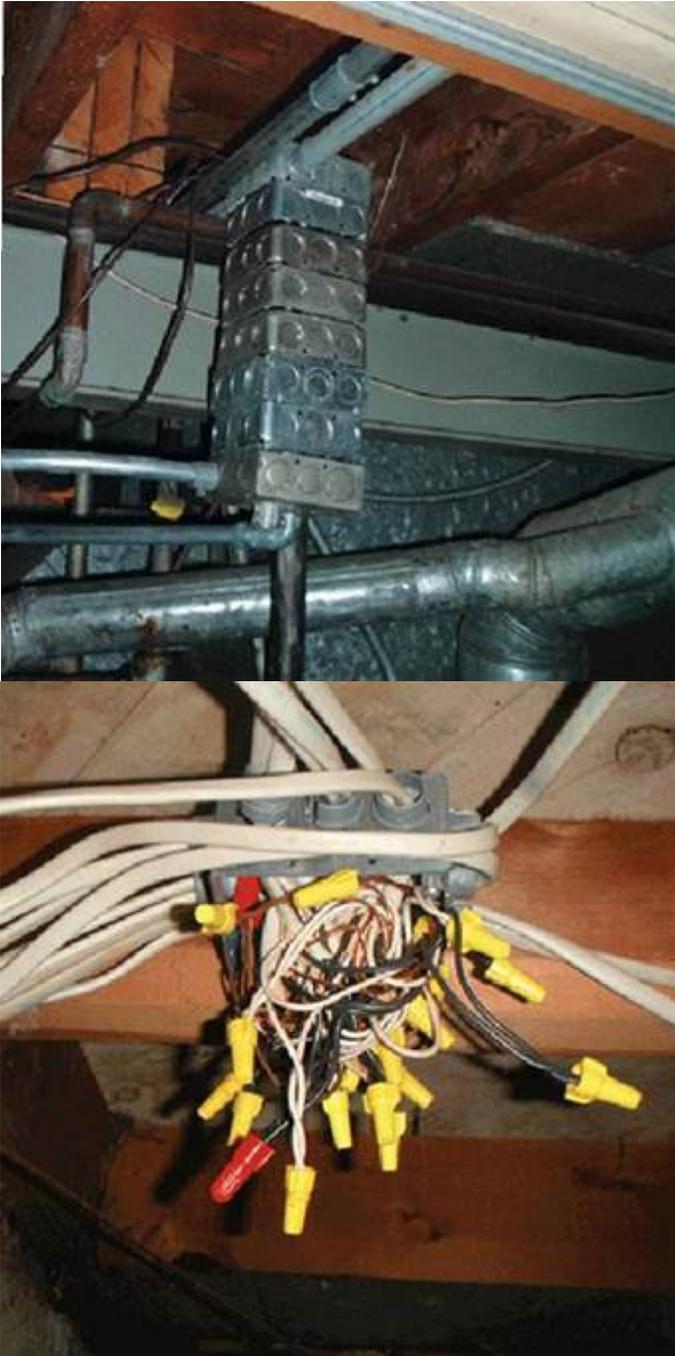
Here are some electrical photos from Marty Davis in recognition that May is also National Electrical Safety Month. The scariest thing to me is that horrors like these usually have language or product clues that they're from outside North America, but these don't.

Match these captions to the photos:

- Here's proof that some people should not be allowed in Lowe's or Home Depot:
- Breakers keep tripping, so let's take them out.\*
- Missed it by a foot? Why not use a bunch of spare electrical boxes?
- No comment required...
- No place to plug-in? Just get out the trusty soldering iron...

\* My house has an empty panel used as a J-box to the new one but it doesn't have a lot of red and/or loosely capped wires.







**AND THEY WALK AMONGST US!**  
**... AND VOTE.**

**LAST MONTH'S UPDATE TOPICS**

Miss an issue? The archive is at "[Monthly Update](#)" on the Standards [homepage](#). Last month's topics:

- **Building Department Org Changes**
- **Apps for Engineers**
- **Nuclear Workers Behaving Badly**
- **Document Numbering**
- **Why do engineers stay in the field? Share your insights in a survey**
- **LANL Standards Issued in March**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

To request a change to this newsletter's distribution, please contact me.  
The views expressed in this email are not necessarily those of my employer.

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