

**ENGINEERING STANDARDS UPDATE**  
Trying to Make Standards Exciting Since 2001

This is the monthly newsletter of the LANL Conduct of Engineering Office's Engineering Standards Program. The Standards define the minimum technical requirements for the design, fabrication, construction, commissioning, repair, and replacement of both new and existing equipment and facilities, including both maintenance and modification, for programmatic and facility work at LANL [[PD340](#)].

**Topics this month:**

- **Electrical Standards Course Tues, Nov 15**
- **Electrical Standards POC Opening**
- **Drillco-a-Go-Go**
- **Conduct Of Engineering Processes for R&D -- [P 341-1](#)**
- **Ethics Training – Update and Apology**
- **LANL Standards Issued in September**
- **DOE Technical Standards Actions**
- **CoE Quote of the Month**
- **When Conduct of Engineering Isn't Followed**

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

**ELECTRICAL STANDARDS COURSE TUES, NOV 15**

David Powell, who knows more about electrical engineering than the combined Messrs. Volta, Faraday, Ohm, Maxwell, and Hertz ever did, is retiring in December, but he'll teach 17998, "LANL Electrical Engineering Standards" from 8-5 at the White Rock Training Center ONE LAST TIME. It covers the electrical engineering standards in Chapter 7 of the LANL Engineering Standards Manual and discusses mandatory requirements and good practices for those involved in electrical design. Strongly suggested for electrical designers, electrical engineers, electrical safety officers, and facility managers. Enroll (or disenroll) using [UTrain](#) (Catalog-Advanced Search for ID 17998) or call 667-0059 or e-mail Central Training at [esh-registration@lanl.gov](mailto:esh-registration@lanl.gov). (Of course, registering on UTrain isn't easy, and I think you should get some CEUs just for managing to do it).

**ELECTRICAL STANDARDS POC OPENING**

Powell's retirement will leave a spot for a senior electrical engineer (Eng 4) downtown. One duty of his replacement will be upkeep of the world's best electrical design criteria and specs for the Standards Program. If you think UTrain is easy and can successfully find job IRC585 in iRecruitment in Oracle, then you may be smart enough for this job and we'd love for you to apply.

### **DRILLCO-A-GO-GO**

The flush-mount (coupling-type) variation of the Drillco Maxi-Bolt undercut post-installed concrete anchor has now been evaluated and accepted by the LANL Building Official for labwide use – it’s a “go.” Now, LANL may use both types of Maxi-Bolts [typically in high-reliability (PC-3) applications in nuclear facilities].

Fully caffeinated readers may recall that an April Update topic (“Hey, Stud”) noted that only the stud-type was allowed, and that the Master [Specs](#) had been revised in March to say so (the ESM Structural Chapter June revision also addressed this).

The gist of the variance allowing flush-mounts is posted on the ESM [Structural](#) Chapter page, and the Div 3 Master Specs are being revised to remove the prohibition -- and to stress the need to have the sleeve/coupling’s top edge at or below the concrete surface and the bolt sufficiently engaged.

### **CONDUCT OF ENGINEERING PROCESSES FOR R&D -- P 341-1**

Previously discussed in July’s Update, this new institutional procedure’s effective date has been delayed to December 16. The purpose of this document is to describe how standardized Conduct of Engineering (CoE) processes are applied during the performance of Research and Development (R&D) activities. Comments to Heidi Hahn.

### **ETHICS TRAINING – UPDATE AND APOLOGY**

A follow-up to the September news on Heidi’s LANL ethics course update for 2011: UTrain isn’t a complete train wreck (see rant above), but it has derailed Heidi’s effort. Things should get sorted in time for a December 1st Update announcement and use (maybe Nov 1).

Also, in discussing training options last month, I joked that registered professionals “seek free CEUs like zombies seek human flesh.” No one disputed that, so I thought it was accurate. Recently, I read that, in fact, most zombies prefer brains (clearly, this is not my favorite movie genre). So...I apologize to zombies everywhere for any slight, as none was intended. Happy Halloween!

### **LANL STANDARDS ISSUED IN SEPTEMBER**

<b>Master Specifications</b>	
03 3001 R4 Reinforced Concrete	Admin change to A-18 (for epoxy rebar only)
03 15XX series on P-I anchors	Variance 2011-101.1 allowing flush-mount (coupling-type) Drillco Maxi-Bolts labwide
<b>Engineering Standards Manual</b>	
Chapter 5 Structural	Variance 2011-101.1 allowing flush-mount (coupling-type) Drillco Maxi-Bolts labwide

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### **DOE TECHNICAL STANDARDS ACTIONS**

New or Revised DOE [Tech Stds](#) this past month:

DOE-STD-[1090](#)-2011, Hoisting and Rigging (formerly Hoisting and Rigging Manual)

### **COE QUOTE OF THE MONTH**

Engineering ... to define rudely but not inapty, is the art of doing that well with one dollar, which any bungler can do with two after a fashion.

- Arthur Mellen Wellington, from *The Economic Theory of Railway Location* (1911)

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

Well, the IBC allows temporary platforms to be constructed of any materials permitted by the code (410.4.1). Presumably this would include aluminum (IBC Ch 20), thus these Oktoberfest-themed floor supports are probably alright depending on loading, and maybe even self-extinguishing in a fire if they're full of beer. Is this what's meant by a foam extinguishing agent? Prost!



### **LAST MONTH'S UPDATE TOPICS**

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

- **National Standard Committee Participation**
- **Ethics Giveaway**
- **More Code Training**
- **Civil PE Exam Review**
- **LDRD Hosts Engineering Town Hall Meeting Today**
- **LANL Standards Issued in August**
- **DOE Technical Standards Actions**
- **CoE Quote of the Month**
- **When Conduct of Engineering Isn't Followed**

To request a change to this newsletter's distribution, please contact me.

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