

ENGINEERING STANDARDS UPDATE

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

Topics this month:

- **Standards POC Changes**
- **NFPA 70E-2012 in Contract**
- **Electrical Standards Course Feb 4**
- **Ethics Course Evaluation**
- **LANL Standards Issued in December**
- **Eng Processes Changes**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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

STANDARDS POC CHANGES

Mark Twain said that politicians and diapers must be changed often, and for the same reason. Some might say the same about LANL Standards POCs, but the reality is that we choose the most qualified people we can get for these positions and try to keep them. This is not unlike supreme court judges who are kept on even if they drool. Such is the case of Charles DuPre', minus the spittle. Since coming here from Rocky Flats over a decade ago, he'd been the Mechanical Team Leader and Standards POC. For nearly the past five years he was also the Chief Pressure Safety Officer and ESM Chapter 17 POC, ever since Engineering took on that program. Charles retired in December and we wish him well.

[Scott Salisbury](#) is now acting Mechanical Team Leader and Standards POC; meanwhile, Charles' Eng Mgr 3 position is open in Oracle (HR iRecruitment/Jobs/Engineering/IRC26692). [Ari Ben Swartz](#) is now the CPSO/Chapter 17 POC. I'm their alternates for when you need someone with POC authority in a hurry; I don't have their supreme subject knowledge but I know who to call.

NFPA 70E-2012 IN CONTRACT

The National Fire Protection Association's NFPA 70E-2012, Standard for Electrical Safety in the Work Place, replaced the 2009 in Appendix G effective November 14. There's little or no impact to the Standards or O&M practices since LANL's sparkheads are on the ball (and looking ahead to 70E-2014).

ELECTRICAL STANDARDS COURSE FEB 4

Tues Feb 4 8am-12pm, White Rock Training Center (TA00-B1308-Rm118)

A compact four hours, this course 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. **Taught by Electrical Standards POC Duane Nizio.**

In UTrain, search in upper right for LANL Standards, scroll down to course, add to To-Do List, and register. Or click Catalog/Advanced Catalog search, and enter 17998 as ID. AEs are encouraged to attend and can contact CT-ITS, 7-0059 or e-mail esh-registration@lanl.gov.

ETHICS COURSE EVALUATION

Last quarter, seems 34 people took one or more of the engineering ethics case study courses that Heidi Hahn maintains on UTrain. As a reminder, she emailed those people yesterday and would like you to complete the anonymous survey using the link she provided.



The Bertha mystery: One reason assumptions don't work in building projects

A 119-foot-long, 8-inch diameter steel well casing is the mystery object that stopped tunnel-boring machine Bertha from her quest to drill a four-lane tunnel for the Highway 99 project in Seattle. The pipe had been installed to measure groundwater levels for the project several years ago, and was mentioned in reference material given to bidders. However, Seattle Tunnel Partners, which is working on the project, assumed the pipe had been removed. Instead, it got stuck in Bertha's cutting teeth, halting progress. How to extricate the pipe has yet to be determined. [The Seattle Times](#) (1/3), [NBC News](#) (1/4)

LANL STANDARDS ISSUED IN DECEMBER

Eng Standards Manual [STD-342-100](#)

Chapter/Section	Summary of Changes
Chapter 7 , D5090 Rev. 5 Other Electrical Systems	General update of 8.0 lighting protection requirements plus need for LPS test wells and design during Title II (cannot defer to builder's subtier). SPD design now in spec only.

Master Specifications [STD-342-200](#)

26 4100 R2 Facility Lightning Protection	General revision and alignment with D5090 Rev. 5
26 4115 R2 Lightning Protection for Explosive Facilities	General revision and alignment with D5090 Rev. 5

ENG PROCESSES CHANGES

The following Administrative Procedures were posted on the Conduct of Engineering Office, [Engineering Processes](#) page in SharePoint. Please refer to today's email notification from Christina for instructions on training and implementation. For questions about APs, please contact [Gurinder Grewal](#) at 667-3667.

AP-341-510-R2	Field Walk-down, Data Gathering, and Inspections (Course#44242)	Issued: 12/23/13
AP-341-901-R3.1	Performing Vital Safety System Assessments (Course#44255)	Issued: 12/13/13

DOE TECHNICAL STANDARDS ACTIONS

DOE [Tech Stds](#) activity this past month:

DOE-STD-1150-2013, Quality Assurance Functional Area Qualification Standard [for Feds]

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

For the second month in a row, teasing (Dutch) architects for putting form over function in China:



A pedestrian bridge inspired by a Mobius strip will provide a link from the riverside walkway and a higher-elevation park on one side of the river to a sports park and a ring road on the other. **Stairs will make the steep inclines of the arches that cross the waterway manageable for pedestrians and bicyclists.** NEXT architects

A comment from the web captures my thoughts well:

“The concept is really beautiful, but a bridge is originally designed to cross an obstacle like a river with a minimal effort. Pushing a baby buggy is no fun here, not to mention older people or bicycles. With snow or ice.

And including steps does not make it better in these terms if there is no general altitude difference to compensate.

Soften it and conceal a flat bottom with curving sidewalls – gives the same effect with much more benefit.”

LAST MONTH'S UPDATE TOPICS

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

- **Ethics and Engineers Behaving Badly**
- **Twelve Days of Code Lyrics**
- **LANL Standards Issued in November**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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

Tobin Oruch, Engineering Standards Mgr
Los Alamos Nat'l Lab, Conduct of Eng Program Office
TA-16-200 M/S F696 ph (505) 665-8475
oruch@lanl.gov <http://engstandards.lanl.gov/>

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