

ENGINEERING STANDARDS UPDATE

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

Topics this month:

- **Building Code Training!!!**
- **Standards Changes Roadshow Slides**
- **LBO Permitting Procedure Issued**
- **Civil POC Changes**
- **CAD Standards Manual Issued**
- **Kleinfelder Becomes Allwyn**
- [AskIT Will Handle EDMS Questions](#)
- **May is Building Safety Month**
- **LANL Standards Issued in April**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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

BUILDING CODE TRAINING!!!

Now that we've adopted the 2015 IBC, IEBC, etc., it's a great time to train. So we're bringing in an expert and asking interested people to sign up right away via [UTrain](#) (AEs without cryptocard via Yolanda Trujillo at 665-5696 or ytrujillo@lanl.gov.)

We're planning on August 3 and 4 for the two courses (choose either or both) and presently have the TA-53-1 Rosen Auditorium (UTrain should reflect this starting 5/7, and registrants will be notified of any future change).

International Building Code (IBC) 2009 to 2015 Transition - Course 29203 -- Mon, Aug 3, 8 a.m. to 5 p.m. (7 CEUs)

Reviews the changes from the 2009 edition to the 2015 International Building Code. The background behind many of the changes will be discussed to provide the participant with an understanding of the intent of the changes and how to apply it to their everyday work. Subjects covered will include the code change process, mixed occupancies, atriums, accessible means of egress and many more.

International Existing Building Code (IEBC) 2015 - Course 29204 -- Tues, Aug 4, 8 a.m. to 5 p.m. (7 CEUs)

Focuses on the fundamental requirements of 2015 IEBC for existing structures that undergo repair work, alterations, renovation activity or construction of an addition, and the effect of a change in the building's occupancy classification. The class discusses the prescriptive requirements, work area requirements and compliance alternatives method of evaluating work in an existing building.

STANDARDS CHANGES ROADSHOW SLIDES

Noted last month, since we've revised part or all of nearly every Engineering Standards Manual chapter since last August, the main authors presented a summary of what's changed to anyone interested last month. Now, the slides have been posted near the top of ESM webpage, directly [here](#). It's only a little out-of-date since we revised material on Security, Pressure Safety, and CAD late last month and Z10 and Civil are imminent.

LBO PERMITTING PROCEDURE ISSUED

Projects (aka tasks) that meet ESM Chapter 16 IBC-GEN flowchart criteria for "Highest Risk" require permitting by the LANL Building Department. The POC for that is David Smith in ES-EPD, with Scott Richardson as his alternate. Now, there's a new EPD Desk Instruction (aka procedure) for permit requestors to follow. It's posted on the internal ES and EPD webpages, the former as "NEW!! [IBC Permitting Process](#)".

CIVIL POC CHANGES

Last month noted the retirement of Nizio and assumption of Standards Electrical POC role by Eric Stromberg, and also the retirement of both Civil POCs this month. On that note, we're pleased to announce that [Crystal Rodarte-Romero](#) has agreed to become the new Civil POC upon Jerry Gonzales' departure later this month. Also, [Donald Yardman](#) will become her alternate once Mell Smithour leaves around the same time. We sincerely thank those guys for their many years of service to the Lab and Standards Program.

CAD STANDARDS MANUAL ISSUED

Led by POC [Scott Richardson](#) along with alternate [Ed Seawalt](#), we have completed transformation of the meatiest parts of the Drafting Manual to the new CAD Standards Manual (see below for a summary of the revisions). Also, even though the manual has a new title, we're calling it Rev. 5 to avoid the confusion and whining we heard when we made all the new Pressure Safety Chapter sections Rev. 0 last fall. Section 300 is being revised next.

KLEINFELDER BECOMES ALLWYN

The IBC Program requires constructors to use LBO-approved testing agencies for soils, concrete, and the like. The LBO was made aware of the ownership change of Kleinfelder operations in New Mexico to Allwyn Environmental effective May 1. We have been assured and are confident that this is an "ownership" change only and that all processes/procedures, personnel, and equipment currently "approved" by both the LANL LBO and AMRL are still current and in use by Allwyn. The change of name, from Kleinfelder to Allwyn, has been made on the official LBO-approved testing labs (etc.) listing and the bottom of ESM Ch 16 [page](#).

AskIT WILL HANDLE EDMS QUESTIONS

Therefore I no longer will. [Story](#) from LANLToday:

“Have a question about accessing LANL’s electronic document management system (EDMS), acquiring a license to log into a repository, viewing documents or where to get user training on the EDMS? Beginning Wednesday (April 15) Tier 1 (basic) requests for EDMS assistance will be handled by the AskIT Service Desk. Call 5-4444 and select option 2.”

MAY IS BUILDING SAFETY MONTH

Excerpts from ICC website:

Founded by the International Code Council, Building Safety Month (BSM) is celebrated by jurisdictions worldwide during the month of May. BSM is a public awareness campaign that teaches what it takes to create and sustain safe structures.

May marks the 35th annual celebration of [Building Safety Month](#). Building safety professionals will host community events to demonstrate the correct way to build to code, or the importance of building permits and inspections, or similar themes that demonstrate the benefits of code compliance.

2015 BSM theme: "Resilient Communities Start with Building Codes."

Building Safety Month is a public awareness campaign to help individuals, families and businesses understand what it takes to create 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.



LANL STANDARDS ISSUED IN APRIL

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

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| Ch. 9 Security | Major revision to implement new orders, primarily DOE O 473.3, and organize into Apps. Added DoD UFC manuals for planning and design of systems, V/VTR table, and AACS requirements from ESM Ch 19. Resolved issues from internal and field office assessments |
| Ch. 17 Pressure Safety Section EXIST Legacy System Requirements, R1 | Added boilers to risk eval table EXIST-0. Changed relief device grace period to 30 days in Table 2D.1 and moved vessels to new Table 2D.2, adding inspection interval paras from NBIC NB-23. New boiler table 2D.3 with NMAC requirements |
| Ch. 17 Pressure Safety Section ADMIN1-1 Pressure Safety Forms, R1 | Removed signatures from forms and incorrect citations from FM10 |

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

| | |
|---|--|
| 03 3053 R7 Miscellaneous Cast-In-Place Concrete | Added concrete material and approved LATM design mixes and clarified concrete finishing requirements |
| 05 4000 R4 Cold-Formed Metal Framing | Updated the material requirement for screws/mechanical fasteners |
| 33 3200 R7 Wastewater Utility Pumping Stations | Minor nomenclature updates and material clarifications |

CAD Standards Manual [STD-342-300](#)

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|---|--|
| Section 100 Rev. 5 - General Requirements | Major update. Better defined applicability and requirements for free-hand and CAD sketches. Drawing numbers, revision, and as-built/as-found process clarified. Standards, terms, orgs, and other references updated or eliminated. Deleted Att. 2. |
| Section 200 Rev. 5 - CAD Requirements | Major update. Eliminated ANSI "A" sheet size for dwgs; new universal title blocks for drawings and sketches. Eliminated "plates" (sketches supplant). New drawing number scheme. Deleted "Submittal Sheets" and "Submittal Schedules" from drawing sets. Reduced req'ts for sketches, particularly when hand-drawn. Clarified req'ts for the use of Paper Space versus Model Space. Changed standard font from Romans and Romand to Arial and Arial Black. Updated terms, standards, and procedure refs. App A and H eliminated; title block template posted separately. |

DOE TECHNICAL STANDARDS ACTIONS

DOE Tech [Stds](#) activity last month: none

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

In addition to May being Building Safety Month, it's also National Electrical Safety Month. From the ESFI [website](#):

What is National Electrical Safety Month?

The Electrical Safety Foundation International (ESFI) is a non-profit organization dedicated exclusively to promoting electrical safety in the home, school, and workplace. To commemorate National Electrical Safety Month, ESFI spearheads an annual campaign to educate key audiences about the steps that can be taken in order to reduce the number of electrically-related fires, fatalities, injuries, and property loss. ESFI's National Electrical Safety Month 2015 campaign features a comprehensive collection of new and updated resources to help facilitate an effective electrical safety awareness campaign for your community, organization, school, or

family. Included is an extensive collection of useful fact sheets and related safety tips, plus templates and tools you can use to promote electrical safety and National Electrical Safety Month in your home, school, community, or workplace. We have even provided media outreach materials and social media content to further spread our life-saving campaign messages.

So, in recognition of National Electrical Safety Month, a couple of winners from the Sochi image treasure-trove:



That's a shower head, not a loudspeaker. I've heard that point-of-use heating is taken to this extreme in some parts of the world. I've also heard that it's marginally effective, so questionable CoE. But that wiring job is clearly wrong -- users better keep their splashing to a minimum and not reach too high, either! There also appears to be some black iron piping that might better have been galvanized for water service, but that's nit-picking compared to electrocution hazard. Hope there's a GFCI in the panel; that might easy to check...since the panel may be IN THE SHOWER like this other Sochi installation!!!



This is wrong on many levels, but at least they could have used a hosedown-rated panel. And good luck keeping the (surely non-existent) panel schedule dry...

Given the LANSCE incident over the weekend, I hope the above is not in poor taste and we keep the focus on safety.

LAST MONTH'S UPDATE TOPICS

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

- **Standards Changes Roadshow this Monday 4/6, 1:30, MSL**
- **Standards Intro Course Wed, April 15, 8 a.m., MSL**
- **IBC 2015 and 420.1C -- Adopted!**
- **Submittals – Redone!!**
- **IHS Standards Expert Training/Pizza Tues, April 14**
- **LANL Standards Issued in March**
- **Engineering Processes News**
- **Pressure Safety Courses this Spring**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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