

## **ENGINEERING STANDARDS UPDATE**

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

### **Topics this month:**

- **2012 UPC/UMC/USEC Adoption**
- **Fire Code Training**
- **IBC and IEBC Training**
- **LANL Standards Issued in May**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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

### **2012 UPC/UMC/USEC ADOPTION**

For reasons related to DOE mandates, LANL adopted several 2015 International Codes in March although the State of New Mexico is still in the process of doing so (projecting about a year from now). But the Plumbing and Mechanical Codes were unrelated to the DOE mandates so we stuck with the 2009 IAPMO Uniform Codes used by the State. Now, as of May 1, the State is allowing the use of the 2012 UPC/UMC and mandating them at permitting starting in the fall, so we'll do about the same by adopting them this summer through a revision of ESM Chapter 16 Section IBC-GEN Attachment A (LANL Building Code). At the same time, we'll update the Library's IHS [subscription](#) to offer access to the 2012 IAPMO codes vice the 2009s, so projects underway with the 2009s should download those now.

Also of note, the State is also adopting the 2012 IAPMO Uniform Solar Energy Code (USEC), which covers photovoltaic and solar thermal; Mechanical Standards POC Michael Ladach is evaluating its adoption as well (you can, too, since it's already in the subscription).

### **FIRE CODE TRAINING**

In addition to the code training below, Fire Marshal Jim Streit is working to bring in an ICC trainer to teach "2015 International Fire Code (IFC) Transition from the 2009 IFC" with Mike Brazile's help. It is tentatively scheduled for Wed, July 22 in the MSL (venue likely to change, date fairly solid).

If interested, please sign up for UTrain 29502 in the next 10 days so we can get a good headcount and reserve a room that supports small group exercises ("This interactive training will focus on the key changes presented in the participant material. Small group activities and knowledge review questions will provide many opportunities for participants to discuss and consider the changes. The information presented will allow for the application of these code requirements to the design, plan review, and/or inspection functions.")

## **IBC AND IEBC TRAINING**

This first appeared last month. Several have several registered but fewer than expected. Please don't put it off. Registration hints added below, and registrants will be sent an email in late July with the handout they'll need to print and bring.

We're still planning on August 3 and 4 (Mon, Tues) for the two courses (choose either or both), and presently have the TA-53-1 Rosen Auditorium (might go smaller and cut off registration).

### **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.

**To register:** Sign up via [UTrain](#) (AEs without cryocard via Yolanda Trujillo at 665-5696 or [ytrujillo@lanl.gov](mailto:ytrujillo@lanl.gov).)

- On [UTrain](#) click on the "catalog" tab and select "advanced catalog search"
- Enter Item Number (29203 and/or 29204) as the "ID", then "search"
- Add-to-do-list
- Go to your to-do-list and click on 'register'

## UNTIMELY VACATIONS

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## LANL STANDARDS ISSUED IN MAY

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

Chapter 3 Civil	Many thanks to Mell Smithour for seeing this to completion with retirement in sight, and to just-retired POC Jerome Gonzales.
Section G10-30GEN General Civil Requirements Rev. 3	Revised Codes and Standards, Design Guidance recommendations, other minor technical and admin updates.
Section G10 Site Preparation Rev. 3	Added stormwater runoff requirements for Federal projects under EISA Section 438, removed material listed in specifications, and other minor technical and admin updates.
Section G20 Site Improvements Rev. 3	Addition of EISA Section 438 requirements, revised Rainfall-Intensity-Duration Curve, other minor technical and admin updates
Section G30 Site Civil/Mechanical Utilities Rev. 3	Revised codes and standards, other minor technical and admin updates.

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

02 4119 R2 Selective Structure Demolition	Added prohibition against driving/tapping post-installed expansion anchors when demolishing such anchors above habitable areas. Ref. 01/29/15 notification from LANL QPA Lessons Learned Team
03 4100 R2 Precast Structural Concrete	Updated for compliance with latest revision to ESM Ch. 5 Sect. II (which was revised to comply with DOE O 420.1C, DOE-STD-1020, IBC 2015, etc.). Also made some minor changes (e.g., typo fixes, etc.).

03 6000 R2 Grouting	Updated template such that it is in accordance with latest revision to ESM Ch. 5 Sect. II (which was revised to comply with DOE O 420.1C, DOE-STD-1020, IBC 2015, etc.). Also made some minor changes (e.g., clarified Author Notes, typo fixes, etc.)
05 0520 R1 Post-Installed Concrete and Grout-Masonry Anchors - Normal Confidence	Added prohibition against driving/tapping post-installed expansion anchors when demolishing such anchors above habitable areas. Ref. 01/29/15 notification from LANL QPA Lessons Learned Team. Updated template such that it is in accordance with latest revision to ESM Ch. 5 Sect. II (which was revised to comply with DOE O 420.1C, DOE-STD-1020, IBC 2015, etc.). Other minor changes (e.g., typo fixes, etc.)
31 2000 R10 Earth Moving	Part 3.10.A clarified

### **DOE TECHNICAL STANDARDS ACTIONS**

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

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

Not all of these are engineering failures, but what the heck (besides, we're used to being blamed).

From the Washington Post:

Among the most "notable" infrastructure failures in the U.S. in recent years are the collapse of the Skagit Bridge in Washington state in May; the 2010 collapse of the Metrodome roof in Minneapolis, and the collapse of a ceiling in a tunnel of Boston's Big Dig in 2006, according to this slide show. Also included are the 2005 failure of the Taum Sauk reservoir in Missouri and the breaches of New Orleans' levees and canals after Hurricane Katrina in 2005. Upgrading and repairing infrastructure is expensive and governments at all levels are struggling to find ways to pay for it, this article notes.

To see the six slides, click [here](#).

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

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

- **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**

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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