

## ENGINEERING STANDARDS UPDATE

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

### Topics this month:

- **Google Search the LANL Standards**
- **IBC 2015 Adoption Early Next Year**
- **LANL Standards Issued in October**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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

### GOOGLE SEARCH THE LANL STANDARDS

Recently a user suggested that we create a single pdf of the entire 40-section Pressure Safety Chapter to allow for easier topic searching. Rather than do that and update it each time we revise an individual section or two, we suggested that the customer use the search feature on the Standards Homepage. It's been there for years but sometimes overlooked, so Christina moved it up on the page and made bigger:



### [Budget busters: Report details 24 of the world's most obscenely over-budget construction projects](#)

Montreal's Olympic Stadium and the Sydney Opera House are among the landmark projects to bust their budgets, according to a new interactive graphic by Podio. Some of these are 10-20X over budget, worse than the worst U.S. projects that are up to 5X. Please note, pointing this out as a curiosity, not suggesting we relax in our attempts to stay under budget on projects.

### IBC 2015 ADOPTION EARLY NEXT YEAR

With all the ESM revisions last month, only the Structural Chapter 5 revision remains for DOE O 420.1C to become the code of record for the design of all new facilities and major modifications to nuclear facilities.

The reason for this phased approach was that DOE O 420.1C mandates DOE-STD-1020-2012 on natural phenomenon hazards, and STD-1020 in turn mandates the use of the ASCE 7-2010. Unfortunately, ASCE 7-10 is largely incompatible with LANL's current use of the IBC-2009 edition which employs the earlier ASCE 7-05. LANL has been working with DOE and NNSA to resolve the conflict, but with no resolution so far, we have agreed to complete our 420/1020 implementation by adopting IBC-2015 in ESM IBC Program Chapter 16 and amending it there and in Structural Chapter 5 by March 2015.

This path was chosen because (1) just like STD-1020, IBC-2015 employs ASCE 7-10 and (2) it's likely that the State of New Mexico will adopt IBC-2015 within about 18 months from now (e.g., early 2016), thus skipping the 2012 edition. By adopting IBC-2015/ASCE 7-10, LANL should only need to revise the ESM once for this building code matter during this period. Furthermore, LANL will benefit from the structural and other improvements in the code while paying a relatively small learning-curve-related price for leading the rest of the state for about a year.

To give LANL access to the 2015 IBC, the Research Library will change our IHS Specs & Standards subscription from the 2009 ICC Codes to the 2015 ICC Codes around March also. Because that will also affect accessibility to the IEBC (existing buildings) and IECC (energy conservation) editions, we'll adopt the 2015 versions of those two codes at the same time as the IBC. (Note, we'll stay with the 2009 IAPMO Uniform Plumbing and Mechanical codes until New Mexico adopts newer ones).

A minor benefit of this 2015 adoption in March will be that you'll not need to deselect the "Most Recent Revision" filter in the IHS search to get the ICC Code pdfs online since we'll be using the latest and greatest (until 2018s come out in 2017). But you'll need to keep deselecting that for IAPMO until those change by way of another ESM Chapter 16 revision.



### LANL STANDARDS ISSUED IN OCTOBER

Master Specifications STD-342-200

Exhibit I template minor update for pressure testing (22 0813)

## **DOE TECHNICAL STANDARDS ACTIONS**

DOE Tech [Stds](#) activity last month:

[DOE-HDBK-1215-2014](#) Optimizing Radiation Protection of the Public and the Environment for use with DOE O 458.1, ALARA Requirements

This Handbook addresses the development and use of a process to keep radiation exposures of the public and environment, and releases of radioactive material to the environment from DOE activities as low as reasonably achievable (ALARA), that is; an ALARA process to implement and comply with DOE O 458.1, Radiation Protection of the Public and the Environment.

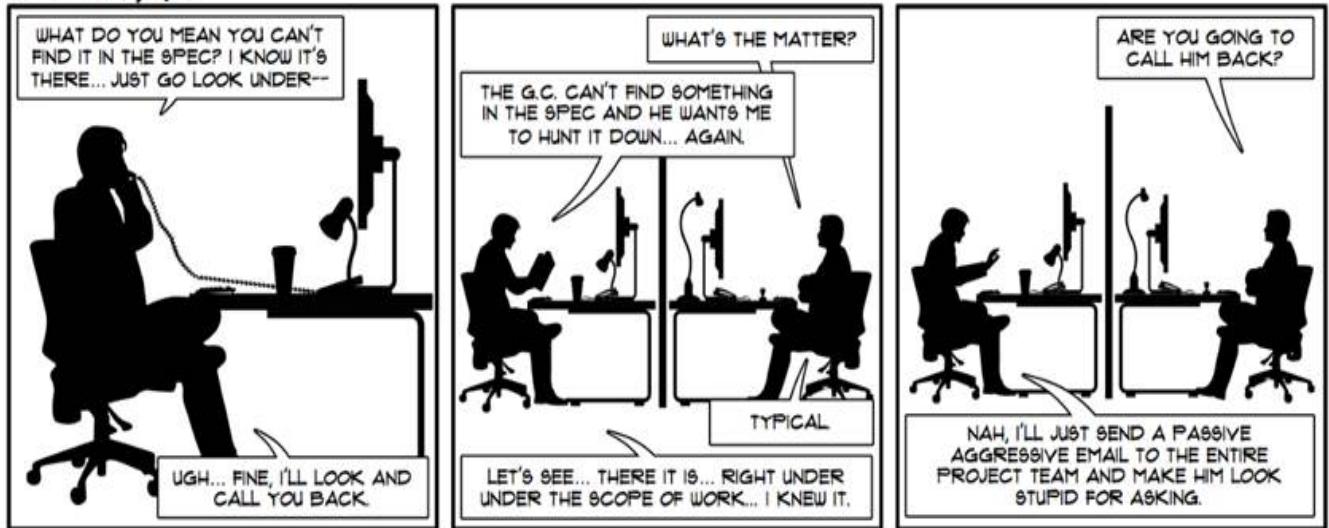
[DOE-STD-1182-2014](#) Civil/Structural Engineering Functional Area Qualification Standard

The Civil/Structural Engineering Functional Area Qualification Standard establishes common functional area competency requirements for Department of Energy personnel who provide assistance, direction, guidance, oversight, or evaluation of contractor technical activities that could impact the safe operation of DOE's defense nuclear facilities.

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

### **CONSTRUCTION ADMINISTRATION: SPECIFICATIONS**

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## Engineering Standards Update

Topics this month: November 2014

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

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

- **Pressure Safety Chapter Revised**
- **LANL Standards Issued in September**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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The views expressed in this email are not necessarily those of my employer.

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