

## ENGINEERING STANDARDS UPDATE

[Standards are serious business](#), but this newsletter isn't.

### Topics this month:

- **IBC Program Graded Approach Streamlined**
- **IHS Online Standards Changes**
- **Ethics for Engineers**
- **LANL Standards Issued in November**
- **Engineering Process Changes**
- **Environmental Remediation Desk Instruction**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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

### **IBC PROGRAM GRADED APPROACH STREAMLINED**

The big news within the Standards Program is that the graded approach to administrative control within the ESM Chapter 16 IBC Program has been simplified through the issuance of VAR-16-009.

The alternate method, effective December 2 and webposted under Section IBC-GEN, includes a matrix showing the new graded approach. In summary, it allows certain lower-risk IEBC Level 2 alterations (dubbed "2A", and not affecting life safety or egress) to be permitted by the Facility Design Authority Representative (FDAR). For this subset, it eliminates (1) the need for core (downtown) Preliminary Project Determination form review and LANL Building Official (LBO) package permit review/approval/stamping, (2) certain lower-risk inspections by CM-CE, and (3) the certificate of occupancy process. [Note: emailed VAR had a typo in Justification No. 4; corrected copy online].

There are new compensatory measures including assessments to help ensure quality. And a revised Preliminary Project Determinations form that must be completed and centrally filed for every IBC job has been webposted under GEN.

Brain hurting? Well, sure:

**[Nothing is so painful to the human mind as a great and sudden change.](#)**

-- Mary Shelley, writer

## **IHS ONLINE STANDARDS CHANGES**

**International Safety Equipment Association:** ISEA standards have been added to the library's [IHS Standards Expert](#) subscription. LANL's most popular is Z358.1 on eyewashes and safety showers, but there are also several on PPE.

**ICC hassles:** If you need to save a pdf of an ICC code like the IBC or IEBC soon, it may be a little trickier than for most other documents. So wait a couple of days if you can, after which it should be business as usual. If you can't wait, you'll need to reckon with the fact that ICC recently opted for IHS' digital rights management (DRM) feature. We're told it will be removed for LANL soon; meantime, DRM requires installation of a free Adobe Acrobat plug-in that "locks" the PDF file to the computer on which it was first opened. [Click here to download the plug-in.](#) (more DRM details [here](#)).

Once FileOpen is working, you can view the file. Then use Shift + Ctrl + S to save the PDF to your drive (versus the usual hover- pointer-near-bottom-of-cover-page to bring up toolbar with floppy disk icon). So it's a little pain right now, but hardcopies have their own issues (see cartoon at the bottom).

## **ETHICS FOR ENGINEERS**

It's a sure sign it's December. Course 31273, "ADE - Ethics for Engineers Case Studies 2015" is now available on UTrain courtesy of Heidi Hahn, ADE Executive Advisor and Mike Brazile.

These annual case studies are primarily for those people who have completed Course 51419, "Ethics Training for Engineers" and need additional ethics-related Professional Development Hours (PDHs) to meet state licensure or other continuing education requirements.

Upon completion of these case studies trainees may claim 1 PDH. Prior year courses are still available.

You can even print a personalized completion certificate from UTrain by going to "Completed Training," hovering over "ADE-Ethics for Engineers Case Studies 2015," and then clicking on "Print Certificate."

To register: Sign up via [UTrain](#)

- On [UTrain](#) click on the "catalog" tab and select "advanced catalog search"
- Enter Item Number 31273 as the "ID", then "search"
- Add-to-do-list
- Go to your to-do-list and click on 'register'

**LANL STANDARDS ISSUED IN NOVEMBER**

<b>ESM <a href="#">STD-342-100</a></b>	
Chapter 17 Section ADMIN-2 Design, Documentation, and Records	Issued <a href="#">VAR-2016-006</a> , ASME B31.3-2014 as the code of record for hydrogen, deuterium, or tritium services. Thanks to POC Ben Swartz.
Chapter 17 Section ADMIN-4 Inspection and Testing, Rev.1	Clarified testing for all systems (1.0.B.2.3). In 2.0, added articles on multi-walled and cryo vessels and piping. Thanks to POC Ben Swartz.
<b>Master Specifications <a href="#">STD-342-200</a></b>	
05 0520 R3 Post Installed Concrete and Grouted-Masonry Anchors - Normal Confidence	Corrected several typographical errors. Thanks to POC Glen Pappas.

**ENGINEERING PROCESSES CHANGES**

Changes made in the past month or so are further down...because we're trying something new—a one-month look ahead to what's becoming effective (unless a facility has an approved variance allowing otherwise).

<b>AP Number</b>	<b>AP Title</b>	<b>Effective Date</b>	<b>Issued Date</b>
<a href="#">AP-341-519-R4</a>	Design Revision Control	12/2/2015 (now)	11/2/2015
<a href="#">AP-341-703-R4</a>	Commercial Grade Dedication	12/15/2015	8/31/2015

Please note that APs, as a single pdf, are posted to the AP SharePoint upon issue to allow for training, USQ, etc.; however it is only once the effective dates are reached is archiving of the superseded AP and posting of the new Word forms performed. And, even so, this may not occur for a day or two after the effective date based on the work schedule of CoE doc control goddess Christina Salazar-Barnes.

Now, the look back (two items):

Revision 2 of an Alternate Method and a revised, new form related to AP-341-517 Design Change Form was just posted to the Engineering Processes APs [SharePoint site](#).

<b>VAR-16-005 R2</b>	<b>Design Change Form – Simple Modification AP-341-517-FM19 R1</b>	<b>Issued: 12/3/15</b>
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This Alternate Method, valid through June 30, 2016, allows the use of new form AP-341-517-FM19 for simple modifications of ML-4 SSCs **except in Hazard Category 2 and 3 nuclear facilities.**

Modifications with all of the following qualities are generally considered simple; this list is not all-inclusive. Final decision whether to use Form AP-341-517-FM19 or Form AP-341-517-FM01 resides with the FDAR.

- Does not require extensive design effort or require numerous design documents.
- Does not require independent technical review(s) from ES-EPD (technical review conducted by the facility engineers), nor LBO permitting from ES-DO.
- Design output documents primarily consist of sketches.
- Few facility technical baseline documents are affected or generated.
- Facility engineering has sufficient resources to develop, review, and implement modification.

Also, the following Administrative Procedure was revised and posted on the [SharePoint site](#) (and is effective already):

<b>AP-341-519-R4</b>	<b>Design Revision Control</b> Course 44245	<b>Issued:</b> 11/02/15
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For a listing of all APs, visit the Conduct of Engineering Office, [Engineering Processes](#) page in SharePoint.

For questions about this email or the content of the AP, please contact [Mel Burnett](#) at 667-1895. For training questions, contact [Yolanda Trujillo](#) at 665-5696.

### **ENVIROMENTAL REMEDIATION DESK INTRUCTION**

Filling a niche need, a desktop instruction (DI) for ADEP projects has been issued and is available on the ES-EPD webpage and [here](#). This DI establishes communication protocols between Environmental Remediation (ER) Field Services (FS) assigned personnel and Engineering Project Delivery (ES-EPD) deployed staff to ER Environmental Services staff when identifying, reviewing, and approving of design revisions in accordance with the Design Revision Control requirements in AP-341-519. It was effective on 11/16/15.

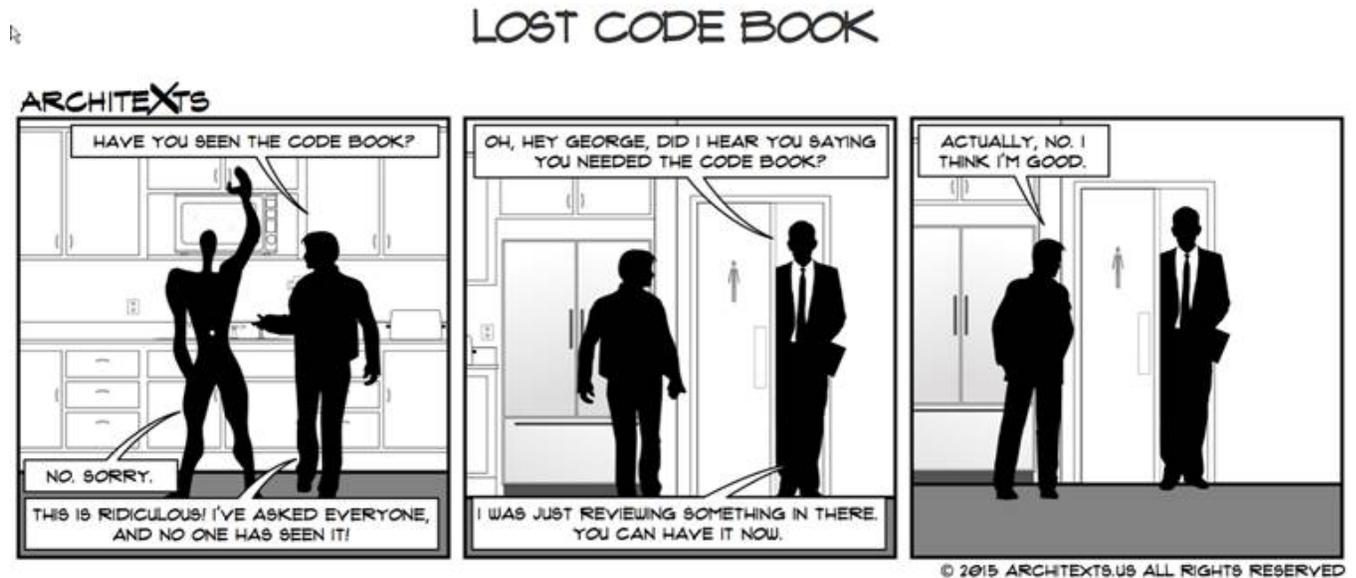
### **DOE TECHNICAL STANDARDS ACTIONS**

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

#### **DOE-HDBK-3012-2015**

Team Leader's Good Practices For Readiness Reviews  
**Superseding DOE-HDBK-3012-2003.** Provides instructions, explanations and examples for the performance of all phases of a Readiness Review (RR) to verify readiness to start or restart nuclear facilities, operations, and activities.

## WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED



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### LAST MONTH'S UPDATE TOPICS

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

- **CoE Streamlining**
- **LANL Standards Issued in October**
- **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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