

ENGINEERING STANDARDS UPDATE
Trying to Make Standards Exciting Since 2001

This is the monthly newsletter of the LANL Conduct of Engineering Office's Engineering Standards Program. The Standards define the minimum technical requirements for the design, fabrication, construction, commissioning, repair, and replacement of both new and existing equipment and facilities, including both maintenance and modification, for programmatic and facility work at LANL [[PD340](#)].

Topics this month:

- **Standards Intro Apr 27**
- **Winning -- IHS Online Codes and Standards Improvements**
- **Knovel Approach to Engineering**
- **Eng Processes Changes**
- **Hey, Stud**
- **CM and 1189 Courses in Vegas**
- **CoE Quote of the Month**
- **LANL Standards Issued in March**
- **What Happens When Conduct of Engineering Isn't Followed**
- **DOE Technical Standards Actions**

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

STANDARDS INTRO APR 27

Don't be an April Fool – get educated on the Engineering Standards! Course 24140 will be taught Wed, April 27, from 8-5 at the MSL auditorium. It's been expanded to 8 hours with yet more meat (sorry, vegans), videos, and a quiz -- not that anyone slept previously. Provides familiarity with national and LANL engineering standards for anyone performing, reviewing, or managing design activities. Taught by yours truly. Enroll or disenroll online [here](#), or contact Yolanda Trujillo at 665-5696 or yitrujillo@lanl.gov

WINNING -- IHS ONLINE CODES AND STANDARDS IMPROVEMENTS

"Two and a Half Men" is in reruns so why not us? Noted last month, the Research Library's IHS [subscription](#) has expanded for 2011. LANL personnel now have access to all previous societies plus the following:

- IAPMO Plumbing and Mechanical Codes (2009)
- The 2009 ICC Codes (we use IBC, IEBC, IFC, and IECC) vice the 2006 editions
- TIA wiring stds (telecommunications)
- Association For Manufacturing Technology standards (machine tool safety mostly)

These 2009 editions will be formally adopted for new work starts by ESM Chapters 5 and 16 revisions in the next few weeks. Contact me for the 2006 editions in the meantime.

KNOVEL APPROACH TO ENGINEERING

Besides IHS, the Library has a vast number of online resources for engineers linked from [this](#) single webpage. Almost every engineer can find something useful here, particularly via the link to Knovel, the engineering e-book provider. They have Mark's Handbook and thousands more. One step closer to the mobile office.

ENG PROCESSES CHANGES

AP-341-501 Screening for Engineering Work has been canceled. It can now be found in the Archived list of APs in [SharePoint](#). It was superseded by [AP-WORK-001](#). For questions or the contents of the APs, please contact Gurinder Grewal at ggrewal@lanl.gov or 667-3667.

HEY, STUD

Nuclear facilities are advised that the Structural POCs have mutually determined that only the historically used, stud-type Drillco Maxi-Bolt post-installed concrete anchor is allowed at LANL at this time. The flush-mount- / coupling-type variation of the anchor has not been used much or at all historically and is not allowed. Only the stud-type has been tested sufficiently to allow LANL Building Official and POC acceptance. The Master [Specs](#) were revised in early March to clearly reflect this.

Structural Specs POC Glen Pappas has contacted Drillco regarding this; they may complete the necessary testing and certification process, but that timeframe is likely years in our experience. Contact Glen with any questions (5-1221) beginning Apr 5.

CM AND 1189 COURSES IN VEGAS

Another rerun: Two courses previously taught by the DOE National Training Center in ABQ and Los Alamos are being offered simultaneously May 2-3 (Mon/Tues, 8-5) in Las Vegas before the May 4-6 DOE FacRep/SSO [Conference](#) at the Alexis Park Resort (EPWOG System Engineering [Subgroup](#) also meeting there).

There is no cost for these courses. Courses are open to DOE and Contractor personnel with DOE having priority (enrollment low, not an issue at this point). If a project or group wants to train a large number of people, it may be possible to have the NTC teach onsite.

SAF-272V Configuration Mgmt: This course provides the students with an introduction to the content and intent of the information contained in DOE-STD-1073-2003, Configuration Management Program. AUDIENCE: Personnel who will be involved with, or develop and implement Configuration Management. Upon completion of the course students will be able to describe the following: 1) The objectives of configuration management 2) Configuration management requirements 3) The five elements of the configuration management process 4) Change control. Maximum Number of Students: 30 (now at 8, need at least 15)

SAF-280 Integration of Safety into the Design Process Course: Application of DOE-STD-1189 is required for line-item projects under DOE Order 413.3A and represents best practices for all

nuclear and high-hazard projects and modifications. The target audience for this course includes: Project Directors, Engineering Managers, Design Authority Representatives (DARs), Project Engineers, and Authorization Basis personnel. The instructors for this course were part of the team that developed DOE-STD-1189 and provide valuable insight into the intent and application of this important DOE Standard. Maximum Number of Students: 30 (now at 5, need at least 15)

Register through LANL's NTC POC Janet T. Martinez, janetm@lanl.gov, 664-0269.

COE QUOTE OF THE MONTH

The engineer's first problem in any design situation is to discover what the problem really is.
- Unknown

LANL STANDARDS ISSUED IN MARCH

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

Chapter 7 Electrical Section D5090 Other Electrical, Rev. 3. Many changes, see document's Record of Revisions.

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

03 1512 R2 Post Installed Concrete Anchors Purchase-High Confidence. Added Hilti Kwik HUS-EZ as qualified anchor and prohibited Drillco flush type anchor.

03 1534 R2 Post Installed Concrete Anchors Purchase-Normal Confidence. Added Hilti Kwik HUS-EZ as qualified anchor and prohibited Drillco flush type anchor.

03 1550 R2 Post Installed Concrete Anchors-Installation and Testing. Added Hilti Kwik HUS-EZ as qualified anchor.

DOE TECHNICAL STANDARDS ACTIONS

New or Revised DOE [Tech Stds](#) this past month:

[DOE-STD-1172-2011](#), Safety Software Quality Assurance Functional Area Qualification Standard [for Feds]

WHAT HAPPENS WHEN CONDUCT OF ENGINEERING ISN'T FOLLOWED



Ok, pretty dumb, but then LANL doesn't install floor drains near safety showers. Difference is, we have a good reason -- the ESM Mechanical Chapter prohibits them to prevent entry of contaminants into rad liquid waste systems or sanitary sewer. I wouldn't think it would be enough chemicals to matter, but apparently it's easier to mop water than deal with the NMED.

LAST MONTH'S UPDATE TOPICS

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

- **Electrical Standards Course this Thurs, Mar 3**
- **IHS Online Codes and Standards Changing**
- **New Welding POC and IBC Chief Inspector**
- **CM and 1189 Courses in Vegas**
- **Coming Soon**
- **CoE Quotes of the Month**
- **LANL Standards Issued in Feb**
- **What Happens When Conduct of Engineering Isn't Followed**
- **DOE Technical Standards Actions**

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 P948 ph (505) 665-8475 fx 667-5405
oruch@lanl.gov <http://engstandards.lanl.gov/>
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