

## ENGINEERING STANDARDS UPDATE

**NEW MOTTO: Standards are serious business, but this newsletter isn't.**

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 Spotlight – Implementing Clarifications and Variances**
- **National Engineers Week Feb 19-25**
- ***LANL Engineering Wiki***
- **CoE Engineering Processes Changes**
- **IHS Online National Standards – Digital Rights Management**
- **CSI in a Cartoon**
- **LANL Standards Issued in January**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

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

### **STANDARDS SPOTLIGHT – IMPLEMENTING CLARIFICATIONS AND VARIANCES**

If you look below at the LANL Standards activity this past month, you'll see that we've issued and posted a couple of clarifications with sitewide applicability. We also post variances and alternate methods when sitewide.

Does this mean a project that's in construction can simply start doing work in accordance with the clarification or variance? Often not. Many of these amendment documents are actually modifying the LANL Engineering Standards in some fashion, but they don't simultaneously modify issued, PE-sealed design – that must be done, as always, along with the engineer of record by way of an FCR, FCN, or revision.

In the case where a true clarification or interpretation doesn't change design but only helps the inspectors with enforcement by clearing up an ambiguity, then a case might be made that the inspectors can utilize that amendment to do their job regardless of whether the issued design is revised. In this example of usage, the LANS inspector should confirm that it does not modify the specific project requirement approved (sealed) by the EOR, and then reference the amendment in their inspection record.

### **NATIONAL ENGINEERS WEEK FEB 19-25**

In case you don't lurk on the ADE [Engineering Science blog](#), it says that the Associate Director for Engineering and Engineering Sciences (ADE) is once again hosting a poster session on recent LANL R&D engineering projects in conjunction with a keynote address on engineering aspects of the Mars Rover project by Ed Miller of JPL later in the latter half of February. Publicity on the event is likely forthcoming soon. The deadline for submitting posters has passed, but you can plead with [Heidi Hahn](#).

### **LANL ENGINEERING WIKI**

Here's a blog post on another 21<sup>st</sup> century tool recently launched by ADE.

#### **INTRODUCING THE ENGINEERING WIKI – AN ELECTRONIC WHITEBOARD**

Posted on [November 11, 2011](#) by [stevegirrens](#)

I am pleased to announce the establishment of a **LANL Engineering Wiki**. The Wiki has been created to further stimulate communication and collaboration among the engineers (and scientists) across the Laboratory.

The Wiki is a modern tool to promote collaboration through online communication. It's basically a **shared, online, persistent whiteboard** that is easy, efficient, and intuitive to use. Every user gets a voice and everyone's contribution is seen, heard, and can be commented upon. In this way Wikis can both enhance and democratize communication and connect engineering elements all across the Laboratory.

The LANL Engineering Wiki will focus on four major themes: **Collaboration, Capabilities, Innovation, & Opportunities**. Users are invited to add content in each of these areas.

Information stored in the Wiki is dynamic. **We invite participation from across the Laboratory**. Just like Wikipedia, the online encyclopedia, anyone can edit a page, so content is current. You can view changes made by different users or rollback to previous versions.

**Start at the splash page link....check it out! [\[here\]](#)**

We have also included the ability to submit comments on the Wiki site itself, as people began to view and contribute to the content. This feedback will be used to improve the Wiki and make it even more useful over time.

I trust you will find the LANL Engineering Wiki to be a stimulating and innovative communication tool. Please join our quest to knit together the LANL engineering community!

### **COE ENGINEERING PROCESSES CHANGES**

Gurinder's been busy and issued a couple of interim change notices and posting a covey of guidance documents on CGD.

ICN-012	AP-341-703	<p>Add the following paragraph to Section 1.0 Purpose: A commercial grade item that satisfactorily completes the dedication process of this AP becomes safety class or safety significant item as applicable. Dedicated items are subject to appropriate controls and requirements of safety class and safety significant items for quality assurance, storage, engineering, and maintenance that are necessary to maintain the item's design integrity for performing its safety functions.</p>
ICN-011	AP-341-506	<p>The AP requires that the affected System Engineer reviews Title I Engineering Change Notices. However, Field 2.1 of the form AP-341-506-FM05 implies that review of FCR by the affected System Engineer can be optional. This is incorrect.</p> <p>Since all changes to the approved design are of interest to the affected System Engineer, therefore the System Engineer must review all the FCRs. Therefore, the "Yes" box in Field 2.1 for Plant System Engineer on the form AP-341-506-FM05 must be checked for all FCRs.</p>

The CGD guides are in a new folder "Guidance on Technical Evaluation and Item Dedication" on the [Engineering Learning Guides page](#).

	EPRI NP-5652_Guidelines for the Utilization of Commerical Grade Items in Nuclear Safety Related Applications !NEW
	EPRI TR-017218-R.1 Guidelines for Sampling in the Commercial Grade Acceptance Process !NEW
	EPRI TR-1003105_Technical Evaluation of Replacement Items Procured from ISO 9000 Suppliers !NEW
	EPRI TR-1008256_Guidelines for the Technical Evaluation of Replacement Items in Nuclear Power Plants, Rev 1 !NEW
	EPRI TR-102260_Supplemental Guidance for the Application of EPRI Report NP-5652 on Utilization of Commerical Grade Items !NEW
	EPRI TR-112579_Critical Characteristics for Acceptance of Seismically Sensitive Items !NEW
	U.S. DOE Office of Environmental Safety and Quality Assurance_Guidance for Commercial Grade Dedication !NEW

For a listing of all APs, visit the Conduct of Engineering Office, [Engineering Processes](#) page. For questions about the contents of the APs, please contact Gurinder Grewal at [ggrewal@lanl.gov](mailto:ggrewal@lanl.gov) or 667-3667.

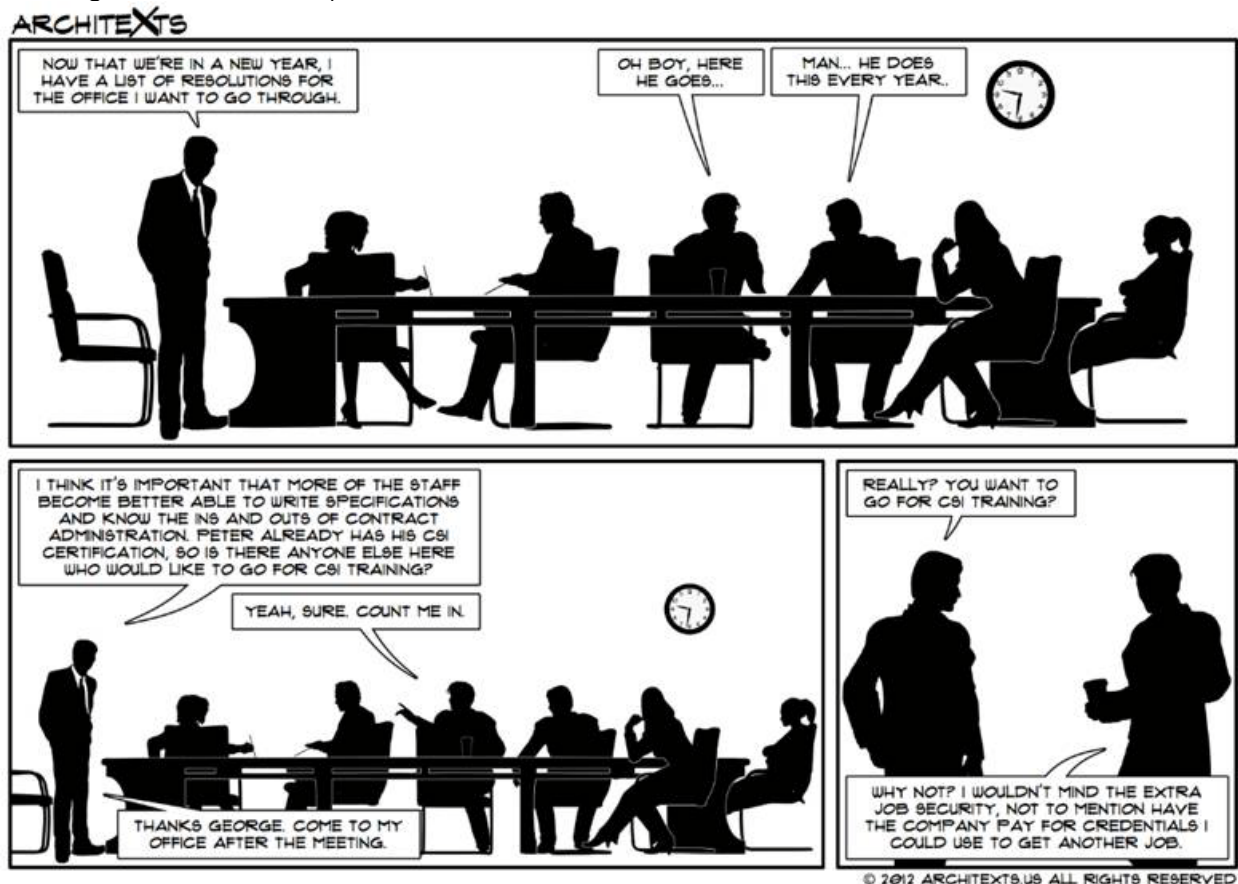
## **IHS ONLINE NATIONAL STANDARDS – DIGITAL RIGHTS MANAGEMENT**

If you've saved pdfs of standards from AWS, ANSI, or ISO in recent years and they won't open after 60-90 days, here's why, paraphrasing an FAQ:

Beginning in 2007, some of the PDF files in [IHS Standards Expert](#) were marked with a Lock icon, indicating these documents have a Digital Rights Management (DRM) security feature that protects the author's intellectual property. If there is no Lock, your access is not affected. This security currently applies to all of the PDF files in the AWS collection and some collections from ANSI and ISO. Opening the Secure PDF files requires a one-time download of a free plug-in, FileOpen. Once it is downloaded, you will be able to access these secure documents without further action. The FileOpen plug-in for PDF (FileOpen.api) is installed automatically by Adobe Reader (and Acrobat Standard/Pro) the first time a FileOpen-encrypted PDF file is accessed. Users may download it directly from <http://plugin.fileopen.com>.

## **CSI IN A CARTOON**

CSI is the Construction Specifications Institute; it's like a nerdy, public Skull and Bones society for folks in my line of work. So it's almost unimaginable that it's the topic of a cartoon, though admittedly in a strip popular with architects (who are folks who deal with specs like I do, but while wearing black turtlenecks).



Ok -- not very funny, but this strip is about architecture. Still, it's a great lead-in to the fact that the CSI Albuquerque Chapter is sponsoring a 3-day seminar "Construction Documents -- How They Work." Details:

Thursday—Saturday, March 1st, 2nd and 3<sup>rd</sup>, 8:00 am - 5:00 pm

Cost: \$400 for members, \$415 for non-members (includes CSI Project Delivery Practice Guide, AIA documents, lunch each day, & handouts)

Public Schools Facility Authority, 1312 Basehart Rd SE Ste 200 Albuquerque

Speaker: Paul Simonsen, FCSI, RA, CCS, CCCA, LEED AP, SCIP [VERY well-qualified!]

For more information, contact Lee Orosco, [lee.h.orosco@gmail.com](mailto:lee.h.orosco@gmail.com), 505-440-3998. Lee tells this is intended for folks with some knowledge of the documents (conditions, specs, drawings, etc.) – "have read the Practice Guide" is how she put it. If you're going to go, you can borrow and read mine prior to going.

## **LANL STANDARDS ISSUED IN JANUARY**

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

03 3001 Reinforced Concrete	<a href="#">CIR-2012-008</a> - Clarification- Sight Glass Use
26 0533 Rev.4 Raceways and Boxes for Electrical Systems	Expanded acceptable materials for certain cast electrical boxes to include "grey cast iron" where only malleable cast iron had been specified. The cast iron boxes will provide satisfactory service at substantially lower cost. Added five LANS "inspection points" as part of the FIELD QUALITY CONTROL article. Revision includes the requirement for two days advance notice to the STR for LANS inspections.
31 2000 Earth Moving	<a href="#">CIR-2012-007</a> - Clarification -Backfill Material Placement and Compaction Below 35 Degrees
33 7119 Rev. 3 Electrical Underground Ducts and Manholes	Added three LANS "inspection points" as part of the FIELD QUALITY CONTROL article. Revision includes the requirement for two days advance notice to the STR for LANS inspections

## **DOE TECHNICAL STANDARDS ACTIONS**

New or revised DOE [Tech Stds](#) this past month: None

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## WHEN CONDUCT OF ENGINEERING ISN'T FOLLOWED

### **THE SHREDDER**

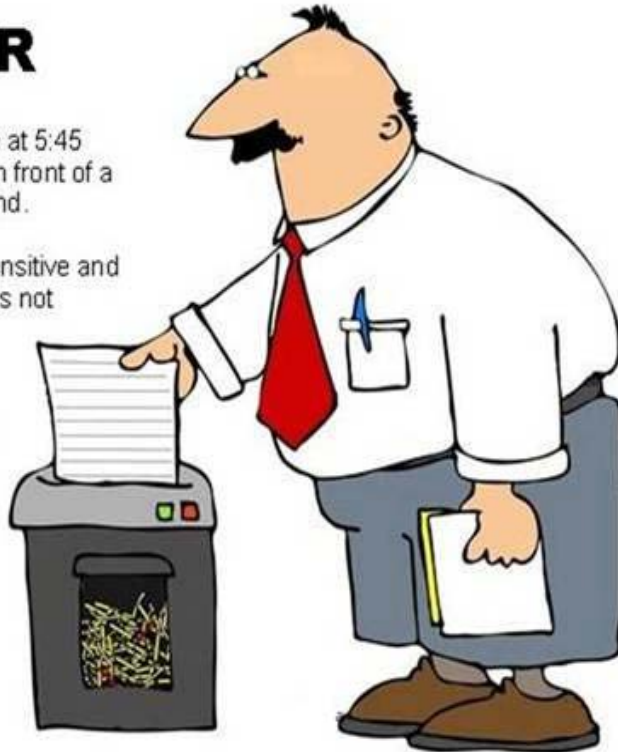
A young engineer was leaving the office at 5:45 p.m. when he found the CEO standing in front of a shredder with a piece of paper in his hand.

"Listen," said the CEO, "this is a very sensitive and important document, and my secretary is not here. Can you make this thing work?"

"Certainly," said the young engineer. He turned on the machine, inserted the paper, and pressed the start button.

"Excellent, excellent!" said the CEO as his paper disappeared inside the machine, "I just need one copy."

**Lesson:** Never, never, ever assume that your boss knows what he's doing.



Sent by a helpful reader -- old but funny. Seriously, though, one might broaden the lesson to "Be careful making any assumption," or "Have a questioning attitude!"

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

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

- **Standards Spotlight – STR Authority**
- **Electrical Standards POC Change**
- **IHS Online National Standards Changes for 2012**
- **CoE for R&D**
- **CoE Quote**
- **LANL Standards Issued in December**
- **DOE Technical Standards Actions**
- **When Good Conduct of Engineering Isn't Followed**

To request a change to this newsletter's distribution, please contact me.

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