

ENGINEERING STANDARDS UPDATE

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

Topics this month:

- Training & Qualification
- New Prime Contract with Triad
- Just for Fun – Twelve Days of Code Lyrics!
- LANL Standards Issued in November
- Engineering Processes News
- Form 1952 – New Version, Grace Period Ending
- DOE Technical Standards Action
- National Standards Action
- When Good Conduct of Engineering Isn't Followed

The LANL Engineering Standards: <http://engstandards.lanl.gov/>

Apologies in advance if you get this twice—some old distribution lists are failing due to org changes.

TRAINING & QUALIFICATION

Registering for UTrain Courses: Go to [UTrain](#), search on course (or click link below), select and enroll. Disenroll if you have to bail. AEs can also register; use token (CryptoCard) or contact T&Q coordinator Yolanda Trujillo at 665-5696 or ytrujillo@lanl.gov with Z number.

Standards Intro Course [24140](#) – Tues, Jan 29 – NEXT MONTH!

Provides familiarity with national and LANL engineering standards for anyone performing, reviewing, or managing design activities. **Required** course for many LANL engineers, recommended for those at local AE firms. Presented in TA-55-0400 (RLUOB) Room 4503/4, 8 a.m.– 4 p.m., by yours' truly. We'll email the slides to print a few days prior so don't wait until the last day to register.

ESM Chapter 21 Software Courses – Express Interest!

Perhaps a few of you are new “Owners” of nuclear safety or other ML-1, -2, or -3 software (installed in a system, or maybe for design/analysis). Most people in that situation are or soon will be subject to ESM Chapter 21 Software and need to take required training on the chapter. (Non-“Owner” tech staff in ES-Div may take the a live course such as the 38047 overview, but if they don't they must take UTrain Required Reading 38040, which should show up in their to-do list if so).

If you need live training, please get on the waitlists for the course(s) below as applicable so we can determine when to schedule the training. Either do so in UTrain (Request Schedule function) or contact Yolanda Trujillo (see above). If you're not sure, contact me (5-8475) or SME/Instructor Joy Getha, 665-9586, jgetha@lanl.gov

- [38047](#) ESM Chapter 21 Software Overview Course 9-11:30 a.m. (RLMs and Owners)
- [34048](#) ESM Chapter 21 Software Owner's Course 1-3 p.m. (just Owners return for this)

News: Ruby Molinar Replaces Mike Brazile

Conduct of Engineering's new T&Q program manager is [Ruby Molinar](#). She replaces Mike Brazile who retired a few weeks ago. She's already working on qual standard revision, course development, and the like. Welcome, Ruby!

Ethics for Engineers: Again, there won't be a 2018 or beyond version of this UTrain course anymore—it cost too much to produce. NM-registered professional engineers needing CEU/PDHs can take previous year courses if they've not already, or seek other educational opportunities.

HILTI HDA Undercut Concrete Anchor Training – Weds, Dec 12 – NEXT WEEK

Again, Santino Hinojos in MOF-CM-SE is managing installation training by a Hilti Field Engineer. Several TA-55 craft and Field Engineers located there took it in August and October, and now they will take interested design engineers and others space-permitting. Classroom training at 9 a.m. at MSL auditorium for 1 hour and optional hands-on (or observation of others installing) at Roads & Grounds for 1 hour (transportation down there included). To enroll, contact [Christine Moore](#) with Z number for UTrain 43624.

Electrical Standards – Weds, Feb 6 – NEW

For the plan-ahead types, four-hour course [17998](#) covers the electrical engineering standards in Chapter 7 of the LANL Engineering Standards Manual and discusses mandatory requirements and good practices for those involved in electrical design. Strongly suggested for electrical designers, electrical engineers, electrical safety officers, and facility managers. AEs are also encouraged to attend. Taught by Electrical Standards POC Eric Stromberg from 7:30–11:30 am, at White Rock Training Center TA-00-1308 Rm 112. Also planned for 5/29, 8/7, 11/14.

NEW PRIME CONTRACT WITH TRIAD

NNSA's [contract with Triad](#) is now up on the Prime Contract Management Office website. To comply, most readers need only follow the LANL Engineering Standards since the main purpose of the standards is to implement the contract in a discipline-structured, user-friendly way. On the other hand, standards POCs are typically concerned with the contract's List of Applicable Directives in Part III - Section J, [App. B](#) (it used to be in App. G). There's a pending modification to the list (#P00006) that, when executed, will update several DOE Orders and Standards that affect the ESM. When that happens, this newsletter will let you know, and we'll revise the ESM as needed to implement.

There's a permalink to the contract webpage on the LANL Engineering Standards [homepage](#) (Helpful Standards Links, then LANL heading).

JUST FOR FUN—TWELVE DAYS OF CODE LYRICS!

It's been five years since I ran this and there are lot of new readers, so it's recycle time. As I wrote then, yes, there's some bureaucracy with IBC construction here, but it's actually less than outside of LANL (also less than five years ago with FDAR permitting)—and at least the LANL Building Official (Larry Goen) and LANL inspectors also represent the owner. And we don't deal

with insurers or boards. This effort at construction humor was from a code forum (by David Bartley with minor edits):

“In our office, at 12:12, we'll be joining in with the online movement in singing "The 12 Days of Christmas," but we made a few tweaks that I thought this group might appreciate:

- 12 Code officials officiating
 - 11 Boards a ruling
 - 10 Contractors appealing
 - 9 Inspectors inspecting
 - 8 Owners squawking
 - 7 Insurers hesitating
 - 6 Accountants counting
 - 5 ICC codes
 - 4 State amendments
 - 3 Jurisdictions
 - 2 New interns
- ...and a client who changes his mind!”

LANL STANDARDS ISSUED IN NOVEMBER

The standards elves have been hard at work lately making your holiday wishes come true. OK, maybe just mine, but a lot of progress nonetheless.

Engineering Standards Manual ESM STD-342-100	
Ch. 1 General – POC Tobin Oruch	
Section Z10, Att.C-R7, Deliverable Schedule 30-60-90-100%	Separated LANL instructions for usage/editing of template from design agency direction. Added design verification, test/acceptance, TIP, SE, and software expectations; other minor changes throughout.
Ch. 13 Welding, Joining & NDE – Vol. 6 Welding Inspection & General NDE Thanks to Level III David Harvey and POC David Bingham	
WIGN 6-02 NDE Inspector Qualification Att 3 r5 Written Practice for NDE Personnel Qualification & Certification	Aligned with new addendum to ASNT SNT-TC-1A- 2016 (7.0.H.3), clarified requirements to obtain experience (5.0.E).
MT-101 r0 Magnetic Particle Inspection	Initial issue!!!
ITM-1306-NDE-UT-100-R1 Ultrasonic Thickness Examination	Major revision, including addition of Olympus 38DL Plus as acceptable instrument.

Ch. 14 Sustainable Design – POC Tobin Oruch	
Sustainable Design of Facilities r9	New summary table, 90.1 and/or IECC, invoked 10CFR433 directly, newer HPSB GPs, new LEED threshold, other changes throughout.
Ch. 16 IBC Program – POC Tobin Oruch	
IBC-GEN Rev. 11 - IBC General Requirements	Incorporated VAR-10168 on inspection in 3-tiered table and 6.6.D. Sheds and Containers became Prefab and expanded. Minor revisions for D&D, elsewhere.
IBC-IP Att. B R13, Statement of Special Inspections	Under Concrete Construction (p 17/18), clarified that SI is not required for seismically exempt PI anchors even if 3rd-party report such as ESR requires same. Thanks to Glen Pappas.
Ch. 17 Pressure Safety – POC Ari (Ben) Swartz	
Section ASME Att ASME-2-R0, National Board Inspection code NB-23	Initial issue!!!
Section ASME Att ASME-5-R0, P&PVC Application	Initial issue!!!
Section NASME Att NASME-1-D r2	A342 changed to use B31.3 paragraph as written; other minor clarifications and corrections.

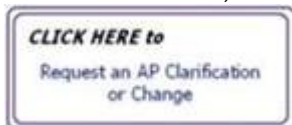
In December, we've already issued new specs on welding and flanging B31 systems; HEPA specs soon...

Master Specifications STD-342-200	
01 4216 r1 Definitions	Added statement on Div 01 precedence. Changed LANS to Triad. Other minor changes.

ENGINEERING PROCESSES NEWS

Part-time and generally lucky guy Jeff Fauble is still here every other week or so (665-5832) serving as the Eng Processes Manager. Most anytime time he's reachable by email at jfauble@lanl.gov; if emails to him bounce, the sender needs to click the Outlook "To" button and select his name from the LANL directory. After that first time, the autocomplete option will work fine.

When ideas for AP change come, please enter them in the SharePoint database. Use the fancy live button below, same one that's found in the upper right of the Processes [homepage](#).



FORM 1952 – NEW VERSION, GRACE PERIOD ENDING

[Form 1952](#) is Receipt Inspection Plan and Requirements. A December 4th email from Miller Collins said that “starting January 2, 2019, only the current 8/18 version of Form 1952 will be accepted for new procurements. The 4/17 version will continue to be accepted thru December 2018 and is acceptable for existing procurements that have already been processed in iProcurement...” Questions: 667-3311, miller_collins@lanl.gov Institutional Quality and Performance Assurance Division-Supply Chain Quality (IQPA-SCQ)

DOE TECHNICAL STANDARDS ACTION

Tech Stds Program [postings](#) in the past month:

DOE-STD-1027-2018	Hazard Categorization of DOE Nuclear Facilities	Standard
Cancellation Memo	DOE-STD-1158-2010, Self-Assessment Standard for DOE Contractor Criticality Safety Program	Cancellation Memo
DOE-STD-1231-2018	Preparation and Conduct of Protective Force Performance Testing (OUO)	Standard
Cancellation Memo	DOE-HDBK-1110-2008, ALARA Training for Technical Support Personnel	Cancellation Memo
Cancellation Memo	DOE-HDBK-1108-2002, Radiological Safety Training for Accelerator Facilities	Cancellation Memo
DOE-STD-3013-2018	Stabilization, Packaging and Storage of Plutonium-Bearing Materials	Standard

NATIONAL STANDARDS ACTION

LANL’s [IHS](#) online codes & standards subscription reports these changes:

Document: **IES RP-1 ADD 2, Practice for Office Lighting**

Publication Date: **7/30/2018**

Type of Change: **Addenda/Addendum**

Document: **NFPA 14, Standard for the Installation of Standpipe and Hose Systems**

Publication Date: **1/1/2019**

Type of Change: **Complete Revision**

Document number: **NFPA 70B, Recommended Practice for Electrical Equipment Maintenance**

Publication Date: **1/1/2019**

Type of Change: **Complete Revision**

Note on I-Code pdfs bought directly from the ICC: Hopefully LANL I-Code users are downloading codes free from IHS and not buying electronic copies. But if anyone has ever

done the latter, those protectedPDFs (that use a S/N to access) are going to stop working effective December 15. You'll need to download new files from IHS (why the hell not) or ICC. Contact me with any questions.

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED



In An Emergency, Please Read This Sign

And may the odds be ever in your favor.

Clearly violates 2015 IBC Chapter 10 Means of Egress, NFPA 101 Life Safety Code, and common sense.

LAST MONTH'S UPDATE TOPICS

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

- **Engineering Processes News**
- **Training & Qualification**
- **LANL Standards Issued in October**
- **O&M Criterion Changes**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

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

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