

ENGINEERING STANDARDS UPDATE

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

Topics this month:

- **Farewell to Doug Volkman**
- **Training & Qualification – Act Now!**
- **LANL Standards Issued in May**
- **Engineering Processes News**
- **Hoisting, Lifting, and Rigging (HLR) Equipment Procurement Issues**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

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

Christina Salazar-Barnes is back from a long vacation today, so CoE document issuance will pick back up.

FAREWELL TO DOUG VOLKMAN

Doug's soon beginning a change of station to South Carolina's Savannah River Site for the pits-in-MOX effort (he's a pretty svelte guy nowadays but rumors of him posing as a high school water polo player to get this are untrue). We're guessing he won't return to LANL so are wishing him well now.

Doug's been a manager in ES-EPD in recent years, but over the years he worked on many structural issues including concrete shielding standards, local concrete quality, the Omega bridge inspection, and existing building seismic evaluations. Of course, he gets extra accolades for having been the Structural Standards POC during the 1990s. This body of work and working his relationships resulted in his achieving ASCE Fellowship a year ago. Doug's as steady and nice a guy as you'd ever like to meet, and we'll miss him.

TRAINING & QUALIFICATION – ACT NOW!

Standards Intro Course [24140](#) – Tues, June 11 C-Div Auditorium TA-46-0535

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. **Don't wait for your slacker manager to assign it to you—bring it up!** Presented 8 a.m.– 4 p.m., by yours' truly. Next offering will be several months from now. Ruby Molinar has already sent out the handout to print so be sure you contact her if you late-register.

ESM Chapter 21 Software Overview and Owners Courses – Thurs June 13 Canyon Complex room 165

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;

their managers only need the overview course (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). So...if you, in fact, need live training, please enroll for the course(s) below, taught once or twice a year. If you’re not sure what you need, contact me (5-8475) or SME/Instructor Joy Getha, 5-9586, jlgetha@lanl.gov

- [38047](#) ESM Chapter 21 Software Overview Course 9:00-noon (RLMs and Owners)
- [34048](#) ESM Chapter 21 Software Owner’s Course 1-3:30 p.m. (just Owners return for this)

CGD Overview & Preparers –Now Tues, June 25 (New date, again) Canyon Complex room 165

Required if you need to do commercial grade dedication for nuclear service per AP-341-703; take one or both courses as needed. Taught by Rick Sarwal.

8:30-10:30 a.m. Course 30726, CGD Overview for Managers, CGD Preparers, others.

Prereq for 30727.

10:30 a.m.-4:30 p.m. Course 30727, required for CGD preparers and reviewers (like IQPA).

B31.9 Building Services Piping Course Perhaps? ESM Ch 17 POC and Chief Pressure Safety Officer (CPSO) Ari Ben Swartz is considering presenting his B31.9 class this summer if there is interest; if you send an [email](#) to both Yolanda Trujillo and Swartz they will add you to the tentative roster. They will also need to know if you will be taking the class just for familiarization of if it’s for qualification as a PSO Duty Area C (Curriculum 11959; your RLM must approve your inclusion into the Curriculum for the PSO assignment). The PSO Qualification Standard defines all the training requirements for Duty Areas and is available [here](#).

Electrical Standards – Wed, Aug 7 WRTC 112

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 11/14.

REGISTERING for UTrain Courses: Go to [UTrain](#), search on course, select and enroll.

Disenroll if you have to bail. AEs can also register; use token (CryptoCard) or contact ES T&Q coordinator Yolanda Trujillo at 665-5696 or yjtrujillo@lanl.gov with Z number.

LANL STANDARDS ISSUED IN MAY
Engineering Standards Manual ESM [STD-342-100](#)

Chapter	Section	Title	Date
Civil Ch 3	References	Posted Low Impact Development Standards for Stormwater (G20)	9/18/2017
Software Ch 21	SOFT-GEN Form 2033	Posted VAR-10326 , Form 2033 Approvals	5/9/2019

	for Safety Basis and Nuclear Criticality Safety Divisions	
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Master Specs [STD-342-200](#)

Spec Number	Rev.	Spec Title	Effective	Summary of Revision
28 4600	2	Fire Detection and Alarm	5/22/2019	Allows for newer-than-IBC-edition standards (1.1.C), calculation and drawing requirement changes, clarifies interfaces, sound level; M/N changes; revised addressable modules, raceways, increased reliance on pdf submittals, streamlined seismic, added transfer switch, other changes. Incorporates and supersedes 28 3110 Fire Detection and Alarm-Addition to Existing.
28 3110	3	Fire Detection and Alarm-Addition to Existing	5/22/2019	Cancelled 5/22/19

ENGINEERING PROCESSES NEWS

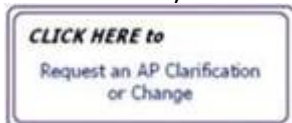
The following Administrative Procedures have been revised and posted on the [SharePoint site](#):

AP-341-607-R2	Determining Critical Characteristics of Safety Related Items Course 56853	Issued: 5/09/19
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Always ensure you are working to the latest revision being implemented by your facility.

For questions this AP, please contact [Jeff Fauble](#) at 665-5832. He's half-time-ish, more often at jfauble@lanl.gov; (if it bounces, click Outlook's "To" button and select him from the directory; after that the autocomplete will work). Jeff's co-conspirator is Sarah Terrill sterrill@lanl.gov, 7-7788.

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



HOISTING, LIFTING, AND RIGGING (HLR) EQUIPMENT PROCUREMENT ISSUES

Miller Collins, IQPA wrote an to QSMEs and TSMEs on May 16 discussing that incorrectly ordered HLR cannot be certified into the LANL HLR program without a time-consuming effort to back-fit the documentation that should have been processed correctly on the front-end. He noted that HLR is one of many items that are listed on [ASM 410](#) list that requires approval of one of the listed contacts prior to ordering the listed item, and he also attached ordering instructions partially excerpted from [P840-1](#) section 3.6.1. Below is a little more info; contact [Miller](#) with questions.

Hoisting, Lifting, and Rigging (HLR) Equipment—HLR is defined at LANL as select devices governed by the ASME B30 series code standards. This includes cranes, hoists, slings, hooks, below-the-hook-lifting devices, and rigging hardware (shackles, turnbuckles, eyebolts, swivel hoist rings, wire rope clips, wedge sockets and other compression hardware, links, rings, swivels, lifting blocks, and other items as discussed in [P101-25](#), *Cranes, Hoists, Lifting Devices, and Rigging Equipment*). Additionally, chain and wire rope intended for lifting, certain forklift attachments, and certain material lifts, lift tables, “order pickers,” positioners, etc., may be considered HLR as determined by [P101-25](#) requirements.

Exceptions/exemptions to the HLR program relative to procurement requirements include but are not limited to jacks (including pallet jacks), jack stands, vehicle lift gates (e.g., “Tommy Lifts”), man-lifts, fork-lifts and other powered industrial trucks, elevators, confined space rescue equipment and fall protection devices, and non-lifting material handling equipment (e.g., tie-downs, ratchet straps, hand trucks, carts, etc.). Additional exceptions/exemptions are listed in [P101-25](#) and any questions and determinations concerning HLR program applicability can be directed to Occupational Safety and Health-Division Office (OSH-DO) program personnel (contact cranes_hoists@lanl.gov for further information)

DOE TECHNICAL STANDARDS ACTION

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

- DOE-STD-1228-2019 [Preparation of Documented Safety Analysis for Hazard Category 3 DOE Nuclear Facilities](#)
- DOE-STD-1151-2019 [Facility Representative Functional Area Qualification Standard](#) [for the Feds]

NATIONAL STANDARDS ACTION

LANL’s [IHS](#) online codes & standards subscription reports these changes. We follow latest edition unless it conflicts with IBC-2105 or is not in project’s code of record.

Document number: ACI 318

Publication Date: 6/1/2019 (LANL uses the 2014 as referenced by IBC-2015)

Title: Building Code Requirements for Structural Concrete (ACI 318-19) Commentary on same (ACI 318R-19)

Type of Change: Complete Revision

Document number: IEEE NESCIR587

Publication Date: 5/10/2019

Title: National Electrical Safety Code

Type of Change: Interpretation

Document number: NETA ATS

Publication Date: 1/1/2017

Title: Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems

Type of Change: Complete Revision

Document number: NETA ATS ERTA

Publication Date: 1/23/2019

Title: Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems

Type of Change: Errata/Erratum

ESM Ch 1 Section Z10 says "Errata (correct errors) to any document...are mandatory regardless of contract award date or code of record."

Document number: TIA TIA-569-E

Publication Date: 5/23/2019

Title: Telecommunications Pathways and Spaces

Type of Change: Complete Revision

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

Bear baiting, part 2.

This month, more weak Russian execution, but with plumbing. Future compilations may include architectural and traffic control device fails.







LAST MONTH'S UPDATE TOPICS

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

- Form 2178 SDDR Revised
- DOE O 420.1C Chg 2 Coming to a DOE Lab Near You
- New Civil Standards POC
- Training & Qualification
- LANL Standards Issued in April
- Electrical and Building Safety Month
- Engineering Processes News
- DOE Technical Standards Action
- National Standards Action
- When Good Conduct of Engineering Isn't Followed

The views expressed in this email are not necessarily those of my employer.
To request a change to this newsletter's distribution, please contact me.

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