
ENGINEERING STANDARDS UPDATE

Standards are serious business, but this newsletter isn't.

Topics this month:

- **Jim Streit's July Retirement**
- **Codes and Standards Access Change**
- **Training & Qualification**
- **New ES-EPD Site Field Engineering Team Leader – Shawn Wright**
- **LANL Standards Issued in May**
- **Tailored Standards Manual (TSM) STD-342-600**
- **MSS Document Changes**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

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

Note: This newsletter has hyperlinks all over but their formatting may not show. Please hover your cursor where you might expect one.

JIM STREIT'S JULY RETIREMENT

Yes, it's true. Jim, of course, is the Division Leader for Engineering Services, and also the NNSA-delegated LANL Building Official, Fire Marshal, and Owner/Lab Design Authority/Site Chief Engineer). That's a lot of hats but he wears them well (along with a variety of badge lanyards). It's trite to say he'll be missed but certainly true in this case!

Here's the text of a note he sent to a few folks last week (apologies for sharing widely):

Earlier this month I informed our ALD management of my intention to retire from LANL at the end of July 2021.

It has been my privilege and honor for the last 2+ years to be a part of the Engineering Services Division leadership team, as well as a member of the LANL Fire Protection organization(s) for the previous 20 years.

We have accomplished much, and there remain further initiatives and opportunities to pursue. I am confident the leadership team in-place is well-positioned to undertake and successfully tackle them.

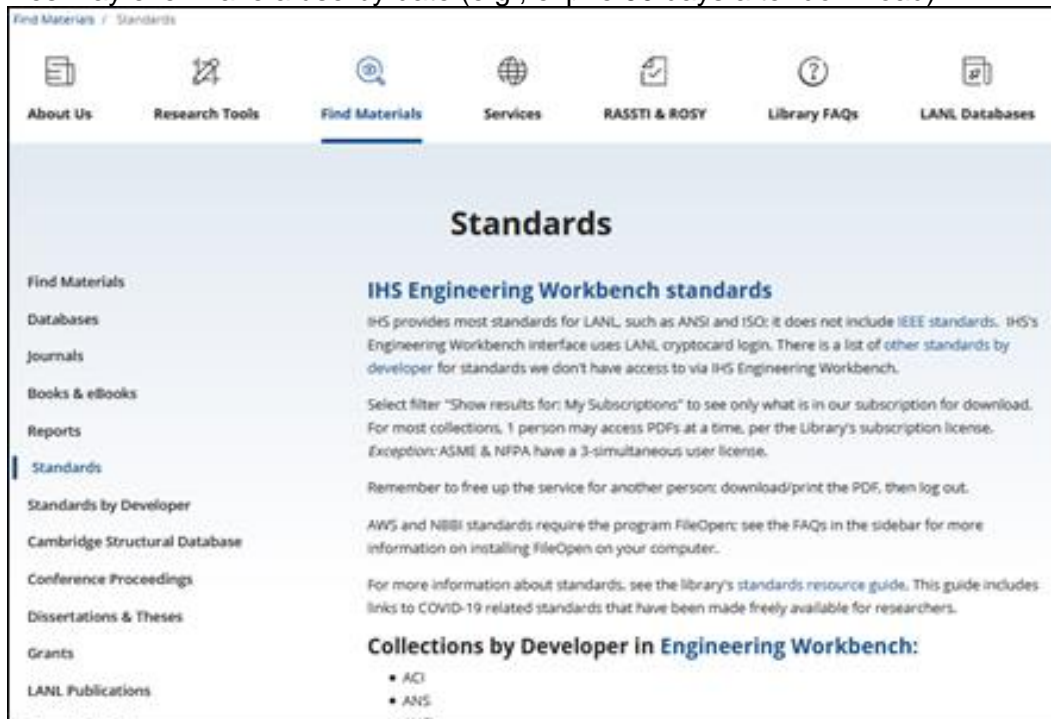
I want to express my appreciation for the Laboratory managers and leaders I have worked for and with during my career; the support, trust, encouragement and well-placed challenges have been immensely rewarding. The Laboratory is a tremendous place to work and serve in the forefront of the Country's national security mission.

Thank you for all that you do –

CODES AND STANDARDS ACCESS CHANGE (IHS Engineering Workbench, IEEEExplore, and others)

COVID cabin fever drove a lot of home and yard makeovers. Now the Research Library moved the bus and revealed a totally remodeled website last week. With demolition there's often broken glass and this is no exception—previous links to their IHS Eng Workbench service from pages like the LANL Eng Standards broke but Christina fixed them. On the other hand, going directly to the Library for standards now entails clicking “Find Materials” (screen below). Best direct link is <https://int.lanl.gov/library/find-materials/standards.shtml>

More on IHS access: The April Update (4/1) discussed the issue of NFPA being read-online-only. The other challenge with some societies is digital rights management (DRM) software. Per library's FAQ: This requires a free Adobe Acrobat plug-in that "locks" the PDF file to the computer on which it was first opened. With admin rights on your computer, [Click here to download the plug-in](#). Once FileOpen is working, you can view, print or download the file. Some files may even have a use-by date (e.g., expire 90 days after download).



The screenshot shows the 'Standards' page on the LANL Find Materials website. The page has a navigation bar with icons and labels for 'About Us', 'Research Tools', 'Find Materials', 'Services', 'RASSTI & ROSY', 'Library FAQs', and 'LANL Databases'. The 'Standards' page content includes a sidebar on the left with categories like 'Find Materials', 'Databases', 'Journals', 'Books & eBooks', 'Reports', 'Standards', 'Standards by Developer', 'Cambridge Structural Database', 'Conference Proceedings', 'Dissertations & Theses', 'Grants', and 'LANL Publications'. The main content area features the heading 'Standards' and a section titled 'IHS Engineering Workbench standards'. This section explains that IHS provides most standards for LANL, such as ANSI and ISO, but does not include IEEE standards. It also notes that the IHS Engineering Workbench interface uses LANL cryptocard login and provides a list of other standards by developer for standards not accessible via IHS Engineering Workbench. A filter option 'Show results for: My Subscriptions' is mentioned. For most collections, 1 person may access PDFs at a time, per the library's subscription license. An exception is noted for ASME & NFPA, which have a 3-simultaneous user license. A reminder to free up the service for another person by downloading/printing the PDF and logging out is provided. It also states that AWS and NBSI standards require the program FileOpen and refers to FAQs for more information on installing FileOpen. A link to the library's standards resource guide is provided, which includes links to COVID-19 related standards. Below this, there is a section titled 'Collections by Developer in Engineering Workbench:' with a list of developers: ACI, ANS, and ASSTI.



TRAINING & QUALIFICATION

Course 39564, Safety Basis for Engineers, your choice of June 10 (Thurs) or Wed, June 16th from 9 AM to 11:30 AM.

Registrants will receive Webex instructions prior to start.

Per Yolanda, Course 39564 is part of the ES Qualifications assigned under curricula 9404, a subcurricula assigned to the ES qualifications plus some/most/all qual standards; also linked to the ES Onboarding Training required of every new hire tech position.

POC: Joy Getha, 5-9586, jlgetha@lanl.gov.

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 training specialist Yolanda Trujillo at 664-0118 or yjtrujillo@lanl.gov with Z number. Registrants will receive Webex instructions prior to start.

NEW ES-EPD SITE FIELD ENGINEERING TEAM LEADER – SHAWN WRIGHT

From Mike Richardson:

I'm pleased to announce our new ES-EPD Site Field Engineering Team Leader, Mr. Shawn Wright.

Shawn has over 10 years of diversified experience in Field Engineering, Design Engineering, and Project Engineering for large facilities with a recent focus in modular construction. He holds a B.S. degree in Mechanical Engineering from Montana State University and is also a registered Professional Engineer. His extensive knowledge and firsthand experience in Field Engineering will be a tremendous asset within our Engineering Services division. Please join us in welcoming Shawn in his new position.

Also, special thanks to Tim Donovan for serving as the acting Site Field Engineering Team Leader during this transition period. Tim will continue to support ES as the Team Leader for the IBC Inspectors and will also support Mr. Wright's transition into the Site Field Engineering Team Leader position.

Thanks to Deb Cushner for this:



What Were You Thinking?

LANL STANDARDS ISSUED IN MAY
Engineering Standards Manual ESM STD-342-100

ESM-Chapter	Section	Title	Rev.	Date	Summary
Chapter 1 - General	Z10	Attachment C, Design Deliverable Schedule 30-60-90-100%	8	5/9/21	Evaluated deliverables based on required dependencies and adjusted accordingly. Added guidance for pre-30% deliverable development to help ensure 30% deliverables are on time. Deleted spec-related requirements at 30%. Major changes for fire protection, pressure safety. Added direction on deferred designs. Other minor changes throughout. Thanks to Mike Richardson, SME input from many, Jeremiah Sanchez and Tadz Kostrubala.
Chapter 1 - General	230	Attachment 1, Equipment/Component Type/Subtype Listing	-	5/24/21	Various abbreviations added or subtracted (see second tab of workbook). Thanks to primary contact/SME Charlie Nuss.
Chapter 3 - Civil	All	Issued VAR-10468 - Revised Storm Water Material	0	5/27/21	Replaces material elsewhere in Ch. 3. Thanks to Daniel Romero, Terrill Lemke, others in EPC-CP, Tadz Kostrubala, POC John O'Brien.
Chapter 5 - Structural	II	Reference: IBC SDC C versus D – Effect on LANL Design	1	5/19/21	Fifth column's reference to LMS and SSI deleted because those standards were revised to add wording relevant to SDC C. Thanks to POC Glen Pappas.
Chapter 16 - IBC Program	IBC-IP	Attachment B: Statement of Special Inspections	14	5/18/21	Both SDC C and D are now addressed per earthquake loads in ESM Ch. 5 Sect. II R11. Clarified nonstructural concrete, review expectations for grouting tickets, seismic steel CoC review (1705.13), sprayed FR material repair/patching added (1705.14) per IM 2020-1389 #7. CM-CE became Chief Inspector; LBO approval became LANL Permitting Authority. Thanks to Glen Pappas, others.

Master Specs STD-342-200

Spec Number	Rev.	Spec Title	Effective	Summary of Latest Revision
01 4444	2	Offsite Welding and Joining Requirements	5/24/21	01 4444: Clarified applicability (1.1.A, C), qualified procedures, consumables, inspection. 01 4455: Appendix A flowchart added. Both: Submittals clarified, including that they be sent with the Div 02-50 Section to which they pertain; clarified inspection requirements. Thanks to Tadz Kostrubala, POC David Bingham.
01 4455	3	Onsite Welding and Joining Requirements	5/24/21	
The following thanks to Structural POC Glen Pappas; this completes the near-term plan to revise documents based on ESM Ch 5 changes for SDC C pathway and loads.				
04 2220	4	Reinforced Unit Masonry	5/10/21	Both SDC C and D are now addressed per earthquake loads in ESM Ch. 5 Sect. II R11.
05 1000	12	Structural Metal Framing		
05 2100	6	Steel Joist Framing		
05 0520	5	Post-Installed Concrete and Grouted-Masonry Anchors - Normal Confidence	5/5/21	Added SDC C option, KB-TZ2 acceptability; revised submittal requirements; numerous minor changes throughout
guide	1	Flowchart for LANL Nonstructural Components: A "Visual Summary" of the Seismic Specification Guides for Mechanical and Electrical Components	5/10/21	Both SDC C and D are now addressed per earthquake loads in ESM Ch. 5 Sect. II R11.
guide	1	Seismic Specification-Editing Electrical/Fire Alarm Component Editing Guide		
guide	1	Seismic Specification-Editing Mechanical Component Editing Guide		

STD Drawings and Details STD-342-400

Chapter		Dwg. #	Sheet	Rev.	Title	Date	Summary
Chapter 3 - Civil	Potable/Fire Protection Water	ST-G3010-7	1	0	Air Relief Valve (ARV) Pit	5/5/21	Initial issue. Thanks to SME Mark Trujillo, Scott Richardson, others.

TAILORED STANDARDS MANUAL (TSM) STD-342-600

This is a new document for limited use on a project-specific (pilot) basis for selected low-risk projects, not for general distribution at this time. It was issued on May 27 via an alternate method (VAR-10466). Thanks to the POCs and other authors, Christina Salazar-Barnes, reviewers, management, others.

MSS DOCUMENT CHANGES

Below are recent changes issued by Maintenance and Site Services Division per Jeremy vonHarders. The first ones are work control related and O&M/PMI-related follow those.

O&M Criterion/PMI Changes

Operation and Maintenance Criterion and related Preventative Maintenance Instruction (PMI) are standards about which system engineers should be familiar. Implementation is required 30 days from issue date for non-nuclear facilities, 60 days for nuclear facilities. Questions? Contact the document author.

Use Internet Explorer to access them on the SharePoint site if you have issues. Access to all such documents when no direct link is shown below: https://logistics.lanl.gov/MSS/_layouts/15/start.aspx#/Policy%20%20Procedures/Forms/Public.aspx

PMI 400-B Rev 3: Cooling Unit Maintenance and Water Treatment Manual (~5/5)

- Major revision to structure and organization, especially with Cooling Tower Daily & Weekly Inspections (.006/.018 & .016/.017)
- Minor Revisions to other checklists

Direct:

<https://logistics.lanl.gov/MSS/layouts/15/start.aspx#/Policy%20%20Procedures/Forms/Public.aspx>

PMI 504-B Rev 6: Low-voltage Electrical Equipment Maintenance (~5/11)

- Clarified inspection criteria language throughout forms .001 - .009

Direct: <https://logistics.lanl.gov/MSS/layouts/15/start.aspx#/Policy%20%20Procedures/Forms/Public.aspx>

PMI 720-B Rev 2: Fire Alarm Systems Six-Month Inspection, Testing, and Maintenance

- Moved Step 1.11 and following NOTE to Section 5, Step 5.2.
- Deleted Step 1.8 and associated calibration table.
- Deleted NOTE referring to 2 year testing vs. 1 year.

Direct: <https://logistics.lanl.gov/MSS/layouts/15/start.aspx#/Policy%20%20Procedures/Forms/Public.aspx>

MSS-GUIDE-039 Rev 1: AC Voltage (Proximity) Detector Use Policy

- Clarify Use of AC Voltage detectors

Direct: <https://logistics.lanl.gov/MSS/layouts/15/WopiFrame.aspx?sourcedoc=/MSS/Policy%20%20Procedures/MSS-GUIDE-039.pdf&action=default>

DOE TECHNICAL STANDARDS ACTION

Tech Stds Program [postings](#) in the past month: None

NATIONAL STANDARDS ACTION

LANL's [IHS Eng Workbench](#) online codes & standards subscription news:

On these, ESM Ch 1 Z10 says "errata (correct errors) to any document...are mandatory regardless of contract award date or code of record." And that "Other interim updates such as addenda and supplements to national consensus standards shall likewise be considered adopted upon issue." ASHRAE standards are under continuous maintenance through addenda.

Document number: [ASHRAE 55 ERTA](#)

Publication Date: **4/28/2021**

Title: **Thermal Environmental Conditions for Human Occupancy**

Type of Change: **Errata/Erratum**

Document number: ASHRAE 55 ADD C

Publication Date: **4/30/2021**

Title: **Thermal Environmental Conditions for Human Occupancy**

Type of Change: **Addenda/Addendum**

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

Maybe they were jealous of the [Taos Hum](#).

The Golden Gate Bridge Has Been Singing. Here's What Engineers Are Doing to Fix It

In a retrofit-gone-wrong, the iconic landmark was turned into a giant music instrument. Now, engineers are trying to fix it back.

By [Derya Ozdemir](#)

May 19, 2021 (Updated: May 19, 2021 12:28 EDT)



Full story: https://interestingengineering.com/the-golden-gate-bridge-has-been-singing-heres-what-engineers-are-doing-to-fix-it_

LAST MONTH'S UPDATE TOPICS

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

- **Training & Qualification**
- **LANL Standards Issued in April**
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To request a change to this newsletter's distribution, please contact me.

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