

## **ENGINEERING STANDARDS UPDATE**

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

#### Topics this month:

- LANL Standards use of "Project"
- IBC/IEBC Training Caution
- I-Code Errata
- Standards Intro Course Oct 28
- National Standard Committee Participation
- Building Codes Around the World
- Renewable Energy Standards and Patents
- Engineering Processes News
- LANL Standards Issued in August
- DOE Technical Standards Actions
- When Good Conduct of Engineering Isn't Followed

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

## LANL STANDARDS USE OF "PROJECT"

It seems a few have missed the fact that the LANL Standards use the term "project" to connote any task, not just those meeting the ADPM procedural definition (some call this a "capital P" project). This addressed in both ESM Chapter 1 Section Z10 and Chapter 16 IBC Program. So users can't just see "project" and stop reading the requirement/section/chapter/ESM.

I hope this helps with Standards compliance—but suspect that those not reading ESM chapters thoroughly are the same people not reading this newsletter fully, either.





## **IBC/IEBC TRAINING CAUTION**

Regarding the training early last month, we learned several factual things and also benefitted from hearing the trainer's opinion on several matters. Some of this will result in improvements to ESM Chapter 16; in the meantime, the chapter's requirements remain mandatory as written (e.g., not planning to change definitions of repair and alteration).

#### I-CODE ERRATA

The IBC training reminded that errata for the I-Codes aren't necessarily published by IHS within or with the code itself until the next printing, and thus may need to be sourced from the ICC website. To remind and aid users with this, we've added the complete (to-date) errata files to the ESM chapter pages that depend heavily on the I-Codes (2–Fire, 14–Sustainable Design, and 16–IBC Program).

The same general concept applies to national standards—there are often errata that must be managed. Section Z10 notes that "Errata (correct errors) to any document…are mandatory regardless of contract award date or code of record."

## **STANDARDS INTRO COURSE OCT 28**

If you haven't had my Intro course it's highly recommended that you take it, and the next time is October 28, 8-4 in Canyon Complex Rm 172. The course provides familiarity with national and LANL engineering standards for anyone performing, reviewing, or managing design activities. Many LANL engineers and designers are required to take it, and outside AEs are encouraged to attend. You can enroll in UTrain, and those whose training plans require it will be automatically enrolled and notified; as of Aug 31, that included Badwan, Barry, Begay, Cox, Gomez, Hall, Hernandez, Martinez F, McElligott, Motamedi, Sackett, Sanchez R, Smeltzer, Snider, Stewart, Velasquez M, Willard, and Worland.

**For others, to register:** Starting Friday, sign up via <u>UTrain</u> (AEs without cryptocard via Yolanda Trujillo at 665-5696 or <u>yitrujillo@lanl.gov</u> with Z number.)

- On UTrain click on the "catalog" tab and select "advanced catalog search"
- Enter Item Number 24140 as the "ID", then "search"
- Add-to-do-list
- Go to your to-do-list and click on 'register'



# NATIONAL STANDARD COMMITTEE PARTICIPATION

If you're a Lab employee serving on a committee maintaining or writing a national code or standard for which I am not aware, please contact me (same when work stops). Examples are ASME, ASTM, NFPA, etc. About 40 employees do such committee work which we must report to DOE-HQ per the contract. The heroic employees as of today:

Mark C. Anderson	Milan S. Gadd	Gene N. Ortega
Michael E. Bange	Tonya M. Grace	Glen J. Pappas
Luiz Bertelli	George M. Hrbek	Donivan R. Porterfield
Ramona Biggs	Jon E. (Rick) Hinckley	Christopher Romero
Sherri A. Bingert	Patrick W. Hochanadel	Mark S. Rosenberger
David A. Bingham	Daniel A. Javernick	Scott R. Salisbury
Kelly L. Bingham	Alan L. Justus	Michael W. Salmon
Robert F. Daley	Douglas D. Kautz	James K. Sprinkle
Scott W. Doebling	Paul O. Leslie	James R. Streit
Shannan D. Diffey	Sheila A. Lott	Ari Ben Swartz
Donald J. Dudziak	Michael W. Mallett	Leah A. Tietjen
Ernest P. Elliott	Thomas D. McLean	Taunia S. Van Valkenburg
David A. Fry	Murray E. Moore	Tom L. Waters
David P. Fuehne	William L. Myers	Joni L. Weamer
		Jeffrey J. Whicker

# **BUILDING CODES AROUND THE WORLD**

LANL people occasionally get involved in siting structures outside the U.S. Following local codes may arise and, if so, the following may help:

<u>FM Global</u>, an ANSI member and accredited standards developer, has published a comprehensive index of the building codes of numerous countries around the world. <u>2015 FM Global Country</u> <u>Building Codes Index</u> is designed to help companies learn about current building codes in target regions, and gain context about construction and fire risk in different countries. The document was produced by FM Global in cooperation with the <u>National Fire Protection Association</u>, an ANSI member and audited designator. Learn more in the FM Global <u>news release</u>.

# **RENEWABLE ENERGY STANDARDS AND PATENTS**

This may interest the LANL folks working in the RE field:

The International Electrotechnical Commission (IEC) has collaborated with the International Renewable Energy Agency (IRENA) and the European Patent Office (EPO) to release a new online platform for global renewable energy standards and patents. The platform, called the International Standards and Patents in Renewable Energy (INSPIRE), allows uses to search, locate, and analyze 400 standards and over 2 million patents for renewable energy technology. Users can search through a standards database and generate reports on specific standards, as well as learn more general information about standards such as what they are, how they are used, and why they are important. According to IEC representatives, the new platform will assist policy makers in finding relevant international standards faster and more efficiently, and it will also help educate stakeholders about the strategic role of international standards and conformity assessment for the cost-efficient expansion of renewable energy generation. Learn more in the IEC news release.



## ENGINEERING PROCESSES NEWS

The following Administrative Procedures have been revised and posted on the <u>SharePoint site</u> per Christina Salazar-Barnes' emails. <u>Gurinder Grewal</u> is onsite most Tuesdays and Thursdays if you have questions.

AP-341-519-R3	<b>Design Revision Control</b> (and Course 44245)	<b>Issued:</b> 07/31/15 [and now effective]
AP-341-515-R2	System Adequacy Analysis (and Course 44256	<b>Issued:</b> 08/11/15
AP-341-609-R1	Specifications for Non-Safety SSCs (and Course 44264)	<b>Issued:</b> 08/11/15
AP-341-611-R2	System Design Descriptions (and Course 44266)	<b>Issued:</b> 08/11/15
AP-341-612-R2	Facility Design Descriptions (and Course 44267)	<b>Issued:</b> 8/11/15
AP-341-703-R4	<b>Commercial Grade Dedication</b> (thanks to Marshall Bullock; live course upcoming, stay tuned)	Issued: 08/31/15 Effective: 12/15/15

# LANL STANDARDS ISSUED IN AUGUST

Eng Standards Manual STD-342-100

For IFC, IECC, IBC, and IEBC, added	
errata files under references for	
Chapters 2, 14, and 16.	
Ch. 17 Pressure Safety Section	Minor change to add missing "for ML-4 only."
NASME-1-C Rev. 2	

#### Master Specifications STD-342-200

05 0520 R2 Post-Installed Concrete	Minor updates, for adhesive anchors, omissions,
and Grouted-Masonry Anchors -	errors, and issues with poorly synched IBC and
Normal Confidence	318-4.

## CAD Standards Manual STD-342-300

CAD Manual Templates	Eliminated a number of inconsistencies between the 3
Rev. 8/17	templates; modified the Dimension Style in all templates to
	comply with the CADMAN regarding rounding of dimensions
	and non-stacking of fractions; and added a blank LBO stamp to
	the templates which is on its own layer so can be turned on or
	off (this reserves the space for the stamp as well as sets us up
	for digital signatures in the future).



## DOE TECHNICAL STANDARDS ACTIONS

DOE Tech <u>Stds</u> activity in the past month:

<u>DOE-STD-1083-2009</u> (reaffirmation 8/14/2015) Processing Exemptions to Nuclear Safety Rules and Approval of Alternative Methods for Documented Safety Analyses.

DOE may grant temporary or permanent exemptions from its nuclear safety requirements in rules provided that the provisions of 10 C.F.R. Part 820, Subpart E, ""Exemption Relief,"" are met. The provisions of 10 C.F.R. Part 820 state that the Secretarial Officer (defined in 10 C.F.R. Part 820) shall utilize any procedures deemed necessary and appropriate to comply with the exemption responsibilities. This Standard establishes acceptable procedures that may be used to request and grant exemptions to DOE nuclear safety rules in accordance with 10 C.F.R. Part 820.

## WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

Ick...and maybe a little hard to fault San Fran infrastructure engineers with this one! At LANL, we might note that designers need to heed ESM Chapter 1 Section Z10 where it discusses environmental qualification, which is the concept of considering all the conditions under which an SSC must continue to operate.

**From:** Cover, Matthew **Sent:** Thursday, August 06, 2015 **Subject:** Materials and Corrosion Resistance Lessons Learned

...and here I thought you only needed to avoid yellow snow. However, an argument is made below that a fire hydrant is a proper "going" place for humans:

http://dailycaller.com/2015/08/06/corroded-by-urine-san-fransisco-light-pole-collapses-nearly-killing-man/

#### Corroded By Urine, San Francisco Light Pole Collapses, Nearly Killing Man

San Francisco is known for its left-wing politics and its natural beauty. But it might soon also be known as the city where public urination kills someone.

A man was driving in the city by the bay when a street light pole crashed down on the hood of his car, missing crushing him by about a foot. How did one of these ubiquitous poles collapse when there was no storm or wind? The base of the pole has rotted out from age and both dog and human urine.

Public Utilities Commission spokesman Tyrone Jue <u>told the San Francisco Gate</u>, "We believe there was some contribution of dog or human urine on the base of the pole."

In spite of the near death of the driver, Jue found a little humor in situation.

"It has actually been an issue for us in the past," Jue said. "We encourage people and dogs alike to do their business in other places, like a proper restroom or one of our fire hydrants, which are stronger and made out of cast iron."



## LAST MONTH'S UPDATE TOPICS

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

- IBC and IEBC Training Monday and/or Tues 8/3, 8/4 Time Change/Last Chance!
- 2012 Uniform Codes Adopted
- Circuit Addition IBC Admin Control Change
- Risk Assessment, Design Quality and Constructability
- FCR/FCN/DCN Log Database
- Nuking your Swageloks
- Engineering Processes News
- Facility Engineering Training and Qualification Manual P343 Revised
- LANL Standards Issued in July
- DOE Technical Standards Actions
- When Good Conduct of Engineering Isn't Followed

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

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