
ENGINEERING STANDARDS UPDATE
Trying to Make Standards Exciting Since 2001

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:

- **National Standard Committee Participation**
- **Ethics Giveaway**
- **More Code Training**
- **Civil PE Exam Review**
- **LDRD Hosts Engineering Town Hall Meeting Today**
- **LANL Standards Issued in August**
- **DOE Technical Standards Actions**
- **CoE Quote of the Month**
- **When Conduct of Engineering Isn't Followed**

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

NATIONAL STANDARD COMMITTEE PARTICIPATION

If you're a Lab employee serving on a committee maintaining or writing a national standard **and I'm not aware of it**, please contact me by Sept. 15. About 45 employees do such committee work, and it must be reported to DOE. Already on my list of heroes:

Mark Anderson	Edwin D. Groover	Glen J. Pappas
William Atkin	Patrick W. Hochanadel	Donivan R. Porterfield
James Baker	Benito L. Jacquez	Craig E. Rasmussen
Shannon Baker	Alan L. Justus	Christopher Romero
William Bearden	Douglas D. Kautz	Mark S. Rosenberger
Sherri Bingert	Robert A. Keown	Scott R. Salisbury
Kelly Bingham	Paul Leslie	Michael W. Salmon
David Bowman	Sheila A. Lott	Thomas E. Sampson
Lowell Christensen	Michael W. Mallett	James K. Sprinkle
Harry J. Clifford	Alexander A. Martinez	James R. Streit
Robert F. Daley	Thomas D. McLean	Thomas E. Tierney
David A. Fry	Robert A. Monsalve-Jones	Lawrence S. Walker
David P. Fuehne	Murray E. Moore	Tom L. Waters
Milan S. Gadd	William L. Myers	Jeffrey J. Whicker
Marjorie A. Gavett	Connon R. Odom	Taunia Van Valkenburg

ETHICS GIVEAWAY

Last month I publicized [NMSPE's](#) various "pay-to-play" ethics courses. But because professional engineers (and architects) seek free CEUs like zombies seek human flesh, this month I'm reminding PEs about LANL's in-house "Ethics Training for Engineers (formerly EDS Course 51419). This course -- and a few others on ethics -- are available online on UTrain (formerly VTC/EDS) by searching "ethics."

If you took credit for 51419 last year, taking credit for it a second time isn't ethical. The good news is that ADE's Heidi Hahn is leading an update of the "application scenarios" for 2011 so PEs can take the revised course beginning in October and ethically get additional credit. I'll announce the new course number in October.

MORE CODE TRAINING

For those that missed or slept through last month's excellent courses on the International Building and Existing Building codes, there are more courses being offered in Santa Fe late this month from 8:30-4pm, \$80/day (\$200 for all 3 if postmarked by 9/16). Contact me if interested.

Mon 9/26: Existing Building Codes

Tues 9/27: Commercial Fire Inspection

Wed 9/28: Accessibility

CIVIL PE EXAM REVIEW

The [PE exam](#) is 10/28-29 in New Mexico. In addition to their online courses, NMSPE is sponsoring a live course set designated to help engineers to prepare for the Civil Engineering Principles and Practices of Engineering examination and to provide a general refresher of Civil Engineering topics. Contact oruch@lanl.gov

On a related note, the LANL ESM was revised in June to require that PEs only practice or seal for those disciplines listed as a competency on the NM Licensure Board website. An example of meeting this requirement is that only PEs with an "R" designation may perform structural designs (civil is insufficient), but it's true of all disciplines. The Site Chief Engineer and ES-DE discipline leads may waive this requirement based on significant demonstrated experience and competency. See ESM Chapter Section Z10 on Design output requirements.

LDRD HOSTS ENGINEERING TOWN HALL MEETING TODAY

From LANLtoday: The Laboratory Directed Research and Development Program is cohosting a town hall meeting with Steve Girrens and the Engineering LDRD Steering Committee to discuss a special call for fiscal year 2012 LDRD proposals related to innovative engineering. The town hall begins at 1:15 p.m. today (September 1) in the Physics Building Auditorium at TA-3.

Successful proposals will better position LANL to deliver innovative engineering solutions (tools, processes, methods or prototypes) to national security problems by

- advancing and/or integrating core technologies that emphasize novel systems and processes

- adaptive sensing and control systems
- advanced data collection/management methods
- engineering computation.

The expectation is transformational advancement through incorporation of emerging technologies into innovative engineering tools, processes, methods or prototypes that will enhance an existing capability and/or lead to future Laboratory capability. More [here](#).

LANL STANDARDS ISSUED IN AUGUST

LANL Master Specifications	
21 1313 Rev.4 - Wet-Pipe Sprinkler Systems	Standardized on a commercially-available vendor-prepared solution of 48% glycerin/52% water by volume, designated as GL48, the highest allowable concentration per the NFPA Alert and TIA 10-2 (higher concentrations exacerbate a fire). At 1.4.B.1, pressure margin now 10% or 10 psi (was 5 psi) to align with DOE-STD-1066 expectations, authors note on variances if low static pressure). Other minor changes on painting, test witnessing, etc.
28 3100 Rev. 5 - Fire Detection and Alarm	Based on a needed improvement in communications to affected FOD organizations, changes to provide better assurance that a FOD representative is aware of pending changes to existing fire alarm systems and the commissioning of new systems.
28 3110 Rev.2 - Fire Detection and Alarm Addition to Existing	Same as 28 3100
Exhibit I template	Added spec titles, other updates
Engineering Standards Manual	
Chapter 1 Section 100 App. A Approval/Signature Sheet	Admin change to add Exhibit I impact field.
Chapter 16 IBC Program	LBO approved testing agencies and fabricators listing updated

DOE TECHNICAL STANDARDS ACTIONS

New or Revised DOE [Tech Stds](#) this past month:

[DOE-STD-3024-2011](#), Content of System Design Descriptions

[DOE-STD-1160-2011](#), Occupational Safety Functional Area Qualification Standard [for Feds]

Bonus notification: [DOE G 414.1-2B](#), Quality Assurance Program Guide. “[P]rovides guidance for DOE elements and contractors in developing and implementing an effective Quality Assurance Program. Cancels DOE G 414.1-2A, DOE G 414.1-3 and DOE G 414.1-5.”

COE QUOTE OF THE MONTH

As an engineer, I’d have said the reverse of this one:

“**Architecture begins where engineering ends.**” [Walter Gropius quotes \(German Architect, 1883-1969\)](#)

WHEN CONDUCT OF ENGINEERING ISN’T FOLLOWED

If you think the problem is a missing trim piece, you should have attended last month’s IBC or IEBC courses to help you recognize that this doorway doesn’t meet code for egress or accessibility:



Thereifixedit.com

LAST MONTH'S UPDATE TOPICS

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

- **Conduct of Engineering Courses**
- **Ethics for Sale**
- **Standards Spotlight: Anchorage of R&D Equipment**
- **Swagelok Classes -- Lunch and Turn (of the Nut)**
- **LANL Standards Issued in July**
- **DOE Technical Standards Actions**
- **CoE Quote of the Month**
- **When Conduct of Engineering Isn't Followed**

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

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