

**ENGINEERING STANDARDS UPDATE**

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

I waited until after Black Friday, Cyber Monday, and Giving/Travel Tuesday to issue this (already way too many emails on those days).

**Topics this month:**

- **LANL Standards Issued in November or so**
- **Training & Qualification**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

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

**LANL STANDARDS ISSUED IN NOVEMBER OR SO**

Engineering Standards Manual ESM [STD-342-100](#)

ESM-Chapter	Section	Title	Date	Summary of latest Revision
Chapter 1 - General	210	Attachment 1: Systems List	11/25/19	See summary at end of document. Thanks to delegated alternate POC Charlie Nuss, Jacque Seay, and others.
	230	Attachment 1: Equipment Type and Subtype List	12/4/19	Expanded to include Type and Subtype. Thanks to the above plus Dominic Garcia, Desiree Mang and others.
Chapter 21, Software	SOFT-GEN	Issued VAR-10365, Update-Dec19	11/7/19	The new form, SOFT-GEN-FM04, SSC Software Change Package Form (SWCP)—and its accompanying instructions document—was webposted in Word for use under SOFT-GEN together with this authorizing Variance. Replacement of the AP with this form consolidates all software QA processes and forms in a single location; this should result in a more coherent and cohesive software QA approach—and one with consistent look and feel. The new form is NQA-1 compliant and follows the same practices/sequences for reviews,

				<p>approvals, and work authorization that the recently issued DCF procedure uses. Thanks to Paula Diepolder, Joy Getha, Jeff Fauble, and the users that provided input.</p>
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Master Specs [STD-342-200](#)

Spec Number	Rev.	Spec Title	Effective
03 3001	12	Reinforced Concrete. Changes included moving design change actions to new App B. Thanks to POC Glen Pappas and reviewers.	11/5/2019

[City of Santa Fe Inspector Red-tags Home—of Boss](#) (excerpt)

By Daniel J. Chacon [dchacon@sfnewmexican.com](mailto:dchacon@sfnewmexican.com)

Nov 19, 2019

[Note: Today, the SFNM had a story that Johnson and her husband are leaving Santa Fe “due to the urgent need to care for a family member.”].



Oh, the irony.

An inspector in the city of Santa Fe’s Historic Preservation Division has red-tagged the home of his boss — Land Use Director Carol Johnson, who is the city’s chief building officer — for failing to obtain a building permit for work on her house.

“This building in a historic district is not in compliance with the city of Santa Fe,” reads a violation notice stapled on a wooden post outside Johnson’s home in the 700 block of Dunlap Street, which she shares with her husband, Kevin Kellogg, who also works for the city as its asset development manager.

“Should compliance not be adhered to, a citation will be issued and you will be subject to” penalties, states the notice, which orders a halt to work at the home, which sits in a neighborhood near downtown, between Agua Fría Street and St. Francis Drive, just south of the Santa Fe River...

### TRAINING & QUALIFICATION

#### [ES-FP Assessment of Egress and Fire Doors \(Course 46507\)](#) Tue, Dec 10, 8:00-3:00, at **LAFD Fire Station 3 in White Rock (reprise of Sept sessions)**

This course was developed by the Door Hardware Institute (DHI) and National Fire Protection Association (NFPA) for authorities having jurisdiction (AHJs), facility managers, and facility maintenance personnel to better understand the basic and critical features of doors and hardware that provide life and fire safety. The course is taught by a DHI credentialed Fire and Egress Door and Assembly Inspector (FDAI). Upon completion of this **five-hour session**, facility maintenance personnel will better understand the working components of fire and egress doors assemblies, how to properly assess and functionally test the condition of them, interpret inspection reports in order to conduct or oversee repair, and perform ongoing maintenance for continued compliance with code requirements. The session will include a walk-through of the facility to review existing opening assemblies as examples of possible non-compliance and deficiencies. Topics Include:

- The specific types of components required for the fire door assemblies.
- A review of the door frames, doors, and builder’s hardware that must be utilized on fire door assemblies.
- Directions on how to review and determine if the products are installed correctly, and for the maintenance personnel, note how to repair products in conformance with NFPA 80 requirements.
- Walk the facility and conduct a mock inspection on a few of the fire rated door assemblies and conclude with a seminar wrap-up. Create a focus on maintenance for the facility personnel and awareness of the doors, frames and builder’s hardware for the AHJ.
- This mock inspection will familiarize the attendees on how fire door inspections should be performed and what type of documentation will be required to be given to the AHJ who will be performing the formal inspections.

Sign up via U-Train using link above and then please email Keenan Dotson (667-5219) in ES-FP: [kdotson@lanl.gov](mailto:kdotson@lanl.gov), or Theresa Martinez.

#### **CGD Overview & Preparers – Wed, Jan 8**, 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.

8:00-11:00 a.m. Course [30726](#), CGD Overview for Managers, CGD Preparers, others.  
Prereq for 30727.

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8:00-5:00 p.m. Course [30727](#), CGD Preparers: required for CGD preparers and reviewers.

**LANL Engineering Standards Intro Course [24140](#) – maybe Jan, dates TBD), the mornings of two consecutive days**

Perhaps this week we'll finish scheduling this course (for late January most likely). When it's set up/open, waitlisters in UTrain will be moved into that by Yolanda Trujillo and notified. And I'll announce the dates for everyone else that might be interested in the January Update. This course 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 8 a.m.– noon on two back-to-back by yours' truly.

**COE Safety Basis Overview for Engineers Course [39564](#) (maybe January, TBD)**

Instructor Joy Getha and Ruby Molinar are working on scheduling this 2.5-hour course as well. Might end up January 27 and 31, 9 AM - 11:30 AM.

**Compression Fittings Assembly Course 30831 now Dec 18 (and monthly thereafter)**

George Glass advises that the Dec 16 class was rescheduled to Dec 18. UTrain says these are offered monthly and are 2-hours long. Presents a general overview of compression fitting principles followed by hands-on application of compression fittings (e.g. Swagelok) to copper and stainless steel tubing. This course or its equivalent is required for workers who assemble compression fittings; it is also recommended, for those who maintain, and/or inspect compression fittings, and for supervisors of installers of compression fittings. Driver: Engineering Standards Manual, Chapter 17. For course specifics, contact Dan Gabel, 7-3126, email [dggabel@lanl.gov](mailto:dggabel@lanl.gov) (NOTE: These are different than the for-profit course periodically offered by the ABQ Swagelok distributor discussed last month).

**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 [ytrujillo@lanl.gov](mailto:ytrujillo@lanl.gov) with Z number.

**DOE TECHNICAL STANDARDS ACTION**

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

[DOE-STD-1212-2019, Explosives Safety](#)

Provides the basic technical requirements for an explosives safety program necessary to ensure safe operations involving explosives, explosives assemblies, pyrotechnics and propellants, and assemblies containing these materials. Establishes safety controls and standards not addressed in other existing DOE or non-DOE regulations and is intended to close the safety gap created by DOE's unique activities to govern the DOE explosives safety process and ensure explosives safety is commensurate with the risk. Based on the Cardinal Principle of Explosives Safety, which is to limit exposure to a minimum number of personnel, for a minimum amount of time, to a minimum amount of explosives, consistent with safe and efficient operations. Supersedes DOE-STD-1212-2012, dated 6-27-2012.

## NATIONAL STANDARDS ACTION

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

NFPA 70-2020 (the NEC) is out in print but not yet available electronically through the IHS platform, but IHS and NFPA are working on it. NOTE: LANL is still using the 2017 edition for now anyway (per ESM Ch 16 IBC-GEN [Att A](#) and P101-13 Electrical Safety Program), so download [that one](#) (was eff. 8/24/16 per IHS) while you still can.

## WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

I don't know the whole story, but given its commercial nuclear reactor safety, this sounds bad (my bolding):

### Nuclear Regulatory Commission - Press Release

No: II-19-038 November 20, 2019

Contact: [Roger Hannah](#), 404-997-4417 [Joey Ledford](#), 404-997-4416

### [NRC Proposes \\$145,000 Civil Penalty to Tennessee Valley Authority](#)

The Nuclear Regulatory Commission has proposed the assessment of a \$145,000 civil penalty to the Tennessee Valley Authority for submitting incomplete and inaccurate information to the NRC that was material in a licensing decision at the Watts Bar nuclear plant.

TVA has admitted to the Severity Level III violation but can contest the assessment of the civil penalty through alternative dispute resolution, involving an independent mediator, if it chooses.

An NRC inspection completed on Aug. 1, 2019, concluded that TVA, on multiple occasions as part of the licensing of Watts Bar Unit 2, and also as part of a license amendment request for Watts Bar Unit 1, submitted incomplete and inaccurate information to the NRC regarding the adequacy of an offsite electric power system.

TVA inaccurately reported to the NRC from July 2010 to January 2015 that two common service station transformers could be counted on as qualified sources of offsite power to be used for accident mitigation. An NRC inspection team identified that the transformers lacked adequate capacity to provide power to safety-related equipment in certain accident scenarios.

The violation did not result in any negative consequences, and TVA has since instituted corrective actions to prevent a recurrence of the violation.

### **LAST MONTH'S UPDATE TOPICS**

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

- **LANL Standards Issued in October or so**
- **Engineering Ethics**
- **Engineering Processes News**
- **Training & Qualification**
- **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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