

This is the monthly newsletter of the LANL Engineering Standards Program. The Standards are mandatory documents that define the minimum design criteria, fabrication, and installation practices for the alteration, repair, and construction of LANL facilities and the programmatic and process equipment within them. [[P340-1](#)]

Topics this month:

- **Electrical Standards Training July 13**
- **Standards Intro Class August 26**
- **Exhibitionism**
- **LANL Standards Issued in June**
- **DOE Technical Standards Actions**

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

### **ELECTRICAL STANDARDS TRAINING JULY 13**

Point-of-Contact David Powell will teach "[LANL Electrical Engineering Standards](#)" July 13 from 8 am - 4pm at the White Rock Training Center. The course 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. Reserve online using link above or call 667-0059 or e-mail Central Training at [esh-registration@lanl.gov](mailto:esh-registration@lanl.gov)

### **STANDARDS INTRO CLASS AUGUST 26**

Introduction to LANL Engineering Standards Course 24140 will be next taught on Wed, August 26. This four-hour course provides familiarity with national and LANL Engineering Standards for anyone performing, reviewing, or managing design activities. Taught by Tobin Oruch, Standards Manager from 8am - noon at White Rock Room 105. Reserve online here or call 667-0059 or e-mail Central Training at [esh-registration@lanl.gov](mailto:esh-registration@lanl.gov). After signing up, if unable to attend, please cancel with Central Training.

### **EXHIBITIONISM**

I often get questions from addressees on topics I've previously covered in these Updates, so I thought I'd try to encourage reading by trying a spicy headline. As if standards were dull. Anyway:

Exhibit I: In the [April Update](#) I wrote about the forthcoming construction subcontract pro forma Exhibit I, Subcontractor Submittal Requirements, and the impact it would have on use of Master Spec Section 01 3300, Submittal Procedures. The May revision of ESM Chapter 1 Section Z10 addressed Exhibit I for the first time.

The news this month is that formal Exhibit I launch is now planned for July, and 01 3300 has been revised to reflect the edits needed when using Exhibit I. Also, a template for the specification-driven submittals to be listed on Exhibit I Attachment B Subcontractor Submittal Requirements Summary has been posted at the top of the LANL Master Specs webpage. Exhibit I itself has been temporarily pulled from the ASM SharePoint site but will be reposted following some revisions.

Other Exhibits: The revised 01 3300 takes care of the potential overlap between Exhibit I and the specs. But recently, another issue has been raised: What should be done about potential conflict between Exhibit D (Scope of Work and Technical Specs) and Division 1 project spec sections on Scope of Work and Work by Owner? Or Exhibit F (ESH) and the spec sections on Water Discharge and Temporary Controls and Compliance? Or Exhibit H (QA) and Section 01 4000, Quality Requirements?

Projects using these documents must ensure that there are no conflicts in the RFP. Subject matter experts of the affected areas will be looking at the issue to determine how best to ensure harmonization of these documents over the long haul.

## **LANL STANDARDS ISSUED IN JUNE**

### **Engineering Standards Manual**

#### **Chapter 1, Section 210 Rev. 4**

For Att 1, eliminated separate acronym and name sort tables, began webposting xls file; additions no longer summarized in an Att 1 Revision Record.

#### **Chapter 7, Section G4010, Rev. 2**

Updated codes and standards; added requirements to calculate ampacity of underground conductors in accordance with NEC Annex B, the Neher-McGrath formula, IEEE Std 835 IEEE Standard Power Cable Ampacity Tables, or approved software using a soil Rho of 250; added requirement that distribution transformers meet efficiency requirements in 10 CFR 431 Subpart K; limited number of pad-mounted transformer secondary conductors to IEEE C55.12.22 terminal capacity; added requirements for separation between outdoor transformers and equipment, updated environmental protection and wildlife protection requirements.

### **LANL Master Specifications**

01 3300 R3 Submittal Procedures  
01 4000 R3 Quality Requirements  
01 4200 R2 References  
03 1512 R1 Post-Installed Concrete Anchors Purchase-High Confidence  
22 0554 R2 Identification for Plumbing, HVAC, and Fire Piping and Equipment  
23 0593 R2 Testing, Adjusting, and Balancing for HVAC  
26 0529 R2 Hangers and Supports for Electrical Systems  
26 0548 R0 Vibration and Seismic Controls for Electrical Systems – **New!**

### **Standard Drawings & Details**

ST-D3040-1 Rev. 3 Fume Hood Airflow Indicator: revised notes  
ST-D3040-5 Rev. 3 Air Filter Pressure Drop Gauge: revised notes

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### **DOE TECHNICAL STANDARDS ACTIONS**

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

DOE-STD-1083-2009 Processing Exemptions to Nuclear Safety Rules and Approval of Alternative Methods for Documented Safety Analyses (25 pages) [PDF](#)  
DOE-HDBK-1028-2009 Human Performance Improvement Handbook Volume 1 of 2 (175 pages) [PDF](#)  
DOE-HDBK-1028-2009 Human Performance Improvement Handbook Volume 2 of 2 (137 pages) [PDF](#)  
DOE-STD-1098-2008 (CN1) Radiological Control (195 pages) [PDF](#)

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

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

- **Electrical Standards Training 7/13**
- **AP Interim Change Notices**
- **LANL Standards Issued in May**
- **DOE Technical Standards Actions**

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

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