

**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:**

- **Ethics Training Imminent**
- **SDDR Form 2178 Revised**
- **Prime Contract Changes**
- **Coming Up for Air**
- **LANL Standards Issued in October**
- **CoE-ish Quotes**
- **Testing AP Revised**
- **DOE Technical Standards Actions**
- **When Conduct of Engineering Isn't Followed**

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

**ETHICS TRAINING IMMINENT**

For PEs primarily, but anyone with time and interest -- Engineering Ethics Case Studies 2011 is now available on UTrain and good for 1 PDH. Just [login](#) with your token card and do an advanced catalog search for 13205. Procrastinators, as Lyle and Mel will tell you, will probably wait until New Year's Eve and try UTrain from home.

**SDDR FORM 2178 REVISED**

Subcontractor Deviation Disposition Request Form [2178](#) was revised in October to clarify usage and update references. SDDRs are included by reference in procurements of engineered equipment (not off-the-shelf items), materials, and technical services -- and for field work (construction). As the form's instructions state, Subcontractors use SDDRs to:

- a. Notify LANS when the Subcontractor wants to propose changes to the subcontract unanticipated at time of award
- b. Notify LANS when a manufactured product does not meet subcontract requirements and to document the Subcontractor's proposed action together with their technical justification.
- c. Notify LANS upon failure to meet requirements of Design Agency reviewed Subcontractor submittal documents.
- d. Receive LANS disposition of the SDDR.

Note: Even with SDDRs, there will still be a need for RFIs, FCRs, variances, etc, depending on the circumstances (who initiates, design or Eng Stds impact, etc.). RFIs are covered in ADPM [AP-850-300](#) Technical Subcontract Management; FCRs in CoE [AP-341-519](#), Design Revision Control; variances in ESM [Chapter 1](#) Section Z10. I see a matrix on all this in your future.

### **PRIME CONTRACT CHANGES**

Changes of possible interest to readers from the list of Appendix G changes in [Mod M177](#) (eff. Oct 3):

DOE O 414.1D, Quality Assurance -- replacing 414.1C, with implementation by 9/2012 pending, per the terms of PCM-11-230  
 DOE O 420.2C, Safety of Accelerator Facilities -- replacing 420.2B  
 DOE O 456.1, The Safe Handling of Unbound Engineered Nanoparticles -- replacing a Notice  
 DOE O 458.1, Chg 2, Radiation Protection of the Public and the Environment -- eff 11/1, replacing Chg 1  
 Several security related orders added and subtracted

On a somewhat related note, [P 310-1 Exemptions to Appendix G Requirements](#) was revised in October. This comes into play when LANS is following the variance/alternate method process described in ESM Chapter 1 Section Z10 and the limit of our authority is exceeded.

### **COMING UP FOR AIR**

Swagelok is having the corporate rep most knowable about oxygen service here November 14, 8-9:30 am. If you're interested in meeting him please contact A. Ben Swartz, the Alternate Pressure Safety Chapter POC (606-2279, [abswartz@lanl.gov](mailto:abswartz@lanl.gov), for location. Repeat after me: "No oily fittings."

### **LANL STANDARDS ISSUED IN OCTOBER**

<b>Master Specifications <a href="#">STD-342-200</a></b>	
13 3419 R2 Metal Building Systems	Admin Change - added an Author Note on pp. 19
23 4133 R2 High-Efficiency Particulate Filtration	Added requirements from DOE-HDBK-1169-2003, Ch. 8 and App A-C. Submittals revised to include QA requirements used in recent purchases. ASME AG-1, Section FK Special HEPA Filters requirements added. Added info on hi-temp filters used at TA-55. Reorganized the various filters. Editing instructions revised. Att updated with the latest manufacturer info.
Updated Exhibit I template atop the specs page	

In November, look for Electrical Chapter revisions.

## **COE-ISH QUOTES**

...from the late, great Steve Jobs...

The design of the Mac wasn't what it looked like, although that was part of it. Primarily, it was how it worked. To design something really well, you have to get it. You have to really grok what it's all about. It takes a passionate commitment to really thoroughly understand something, chew it up, not just quickly swallow it.

You can't connect the dots looking forward; you can only connect them looking backwards. So you have to trust that the dots will somehow connect in your future. You have to trust in something - your gut, destiny, life, karma, whatever. This approach has never let me down, and it has made all the difference in my life.

Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma - which is living with the results of other people's thinking. Don't let the noise of others' opinions drown out your own inner voice. And most important, have the courage to follow your heart and intuition.

Your work is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work is to love what you do. If you haven't found it yet, keep looking. Don't settle. As with all matters of the heart, you'll know when you find it.

More Jobs quotes [here](#).

## **TESTING AP REVISED**

Administrative Procedure AP-341-801, r1, Post Modification / Post Maintenance Testing, was just issued. Please ensure you are working to the latest revision being implemented by your facility.

For a listing of all APs, visit the Conduct of Engineering Office, [Engineering Processes](#) page on SharePoint.

For questions about the APs, please contact Engineering Processes dude Gurinder Grewal at [ggrewal@lanl.gov](mailto:ggrewal@lanl.gov) or 667-3667. Here's one more Jobs quote for Gurinder, who's a big Apple fan (get it?): "The system is that there is no system. That doesn't mean we don't have process. Apple is a very disciplined company, and we have great processes. But that's not what it's about. Process makes you more efficient."

## **DOE TECHNICAL STANDARDS ACTIONS**

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

DOE-STD-[1197](#)-2011, Occurrence Reporting Causal Analysis

DOE-HDBK-1022-2009, Part 1 Chg 2: Radiological Control Technician Training [PDF](#); Part 5:

Radiological Control Technician Training, Site Academic Training Instructors Guide Phase I [PDF](#)

### **WHEN CONDUCT OF ENGINEERING ISN'T FOLLOWED**

The warning tape seems unnecessary – is anyone really dumb enough to get under there? Or is tape being relied on structurally? (scouts, remember lashing and frapping?). At least they didn't use duct tape like [Ryanair](#) did on a windshield last week – [survey](#) on that says: bad Conduct of Maintenance.



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

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

- **Electrical Standards Course Tues, Nov 15**
- **Electrical Standards POC Opening**
- **Drillco-a-Go-Go**
- **Conduct Of Engineering Processes for R&D -- [P 341-1](#)**
- **Ethics Training – Update and Apology**
- **LANL Standards Issued in September**
- **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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