

## 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:

- **LANL Standards Variance and Interpretation Processes Changed**
- **Nuclear Safety Design Course Coming to LANL**
- **CoE Quote of the Month**
- **Ethics for PEs in Oct – Updated**
- **LANL Standards Issued in Sept**
- **What Happens When Conduct of Engineering Isn't Followed**
- **DOE Technical Standards Actions**

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

### **LANL STANDARDS VARIANCE AND INTERPRETATION PROCESSES CHANGED**

Mentioned last month, we've reworked the standards interpretation and variance processes to re-align authorities and improve documentation.

As part of this change, we're now using the new Lab term "Safety Management Program Owner (SMPO)" that, for standards, refers to Dan Steinberg, Jim Streit, and a couple of others that are the authorities for engineering, fire, security, rad protection, and electrical safety. These people are listed on the Standards homepage link for [POCs](#).

Variances are granted at the same level as before, but all must use LANL Form [2137](#).

Interpretations use new Form [2176](#); however, now, when it's an ESM, code, or other contract issue, the SMPO needs to sign the form also. POCs can give staff opinions with just an email, but they should end it with "This staff opinion is for informational purposes only."

The changes are described by the revised Engineering Standards Manual Chapter 1 Section [Z10](#) (8/25 rev; extracted summary table below).

Both forms are on the Forms Center and are cross-posted on the Standards Homepage and under Z10 (Word is best). Note that only LANL folks can be the Requestor now.

**Table Z10-1 Standards Clarification, Interpretation, Alternates, and Variances — Methods, Approvals, and Appeals**

	LANL Spec, Standard Detail or Procedure, or Drafting Manual (Non-Code/Non-Regulation)			Engineering Standards Manual or Code or Regulation Matter where Authority IS Delegated to LANS			Prime Contract Compliance Matter where Authority is NOT Delegated to LANS		
	Method	Issuing Authority	Appeals	Method	Issuing Authority	Appeals	Method	Issuing Authority	Appeals
Staff Opinion	Phone or Email	POC (SMPOR)	N/A	Phone or Email	POC (SMPOR)	N/A	Phone or Email	POC (SMPOR)	N/A
Formal Clarification or Interpretation	Form <a href="#">2176</a>	POC (SMPOR)	SMPO	Form <a href="#">2176</a>	SMPO	Progressively higher levels of management	Form <a href="#">2176</a>	SMPO	Progressively higher levels of management or DOE
Alternate Method or Variance (prior to work)	Form <a href="#">2137</a>	POC (SMPOR)	SMPO	Form <a href="#">2137</a>	SMPO	Progressively higher levels of management	Form <a href="#">2137</a> + <a href="#">P 310-1, Exemptions to Appendix G Requirements or 10CFR851 variance website</a> ; etc.	SMPO + DOE Los Alamos Site Office or higher	DOE HQ
Alternate Method or Variance (after work is submitted for acceptance)	Same as above, but also requires an NCR								

<b>Staff Opinion</b>	Informal assistance from Standards Program staff for informational purposes only. For official direction use LANL Form 2176.
<b>SMPO, SMPOR</b>	The Safety Management Program Owner (SMPO) is the technical authority. The POC is the SMPO representative (SMPOR) as is shown on the Standards <a href="#">website</a> .
<b>Clarify</b>	To make the Eng Standards or referenced document understandable and free from confusion
<b>Interpret</b>	To formally provide an acceptable method of compliance with the Eng Standards or referenced document
<b>Alternate Method</b>	A deviation from an Eng Standards or referenced code technical requirement that includes compensatory measures that accomplish the desired intent or results but using a different approach with alternative materials, design, or methods of construction or equipment
<b>Variance</b>	A deviation from the explicit expectations in the Eng Standards or referenced code or standard; an exception

### **NUCLEAR SAFETY DESIGN COURSE COMING TO LANL**

The 2-day course on DOE-STD-1189, Integration of Safety into the Design Process, will be taught November 17th and 18th, 8-5, in Canyon Room 160.

It is being taught through the DOE National Training Center as SAF-280, which says: "Application of DOE-STD-1189 is required for line-item projects under DOE Order 413.3A and represents best practices for all nuclear and high-hazard projects and modifications. The target audience for this course includes: Project Directors, Engineering Managers, Design Authority Representatives (DARs), Project Engineers, and Authorization Basis personnel. The instructors for this course were part of the team that developed DOE-STD-1189 and provide valuable insight into the intent and application of this important DOE Standard. This course is open to both DOE and LANL personnel on a priority basis. There is no cost for this course but seats are very limited."

To register for Course SAF-280, contact LANL's NTC registrar [Janet T. Martinez](mailto:janetm@lanl.gov), CT-OTS, [janetm@lanl.gov](mailto:janetm@lanl.gov), 664-0269.

### **COE QUOTE OF THE MONTH**

"The difference between Chile and Haiti is...all attributable to the building codes. The lesson is building codes are effective both in terms reducing loss of life and loss of money."

Kate Stillwell, earthquake product manager at Oakland, Calif.-based catastrophe modeler EQECAT Inc.

### **ETHICS FOR PEs IN OCT -- UPDATED**

The end of the year and your PE license renewal could be just around the corner (even-numbered license in even-numbered years like 2010). Have you taken all your ETHICS classes? NMSPE 2010 live and online [classes](#):

8 Oct. Santa Fe - Santa Fe Community College - Remember to register at least by the Friday prior to the class (today for the 8<sup>th</sup>).

Cost: \$75.00 for Members; \$100.00 for Non-Members Day and Time: Fridays 1-3:00 pm Class sizes may be limited, so register early.

Topic: "Cases 3.0" (Case studies of actual ethical problems faced by practicing engineers); instructor: Dr. Charles Fleddermann.

**LANL STANDARDS ISSUED IN SEPT**

None, but revised concrete spec coming in a few days...

**DOE TECHNICAL STANDARDS ACTIONS**

New or Revised DOE [Tech Stds](#) this past month: None.

**WHAT HAPPENS WHEN CONDUCT OF ENGINEERING ISN'T FOLLOWED**

Watch your head!



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

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

- **Building Code Adoptions Delayed**
- **P342 Engineering Standards Issued**
- **Nuclear Safety Design Course Coming to LANL**
- **AP-CMP-400, Startup and Commissioning**
- **CoE Procedure Progress**
- **Ethics for PEs in Oct – Updated**
- **PE Review Classes in ABQ**
- **CoE Quote of the Month**
- **LANL Standards Issued in August**
- **What Happens When Conduct of Engineering Isn't Followed**
- **DOE Technical Standards Actions**

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

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