

---

**ENGINEERING STANDARDS UPDATE**

[Standards are serious business](#) but this newsletter isn't always.

**Topics this month:**

- Training & Qualification – Stds Course Date/Time Change
- Come Work on Standards!
- Pressure Safety Program Revised
- LANL Standards Issued in Dec
- DOE Standards Action
- When Good Conduct of Engineering Isn't Followed

**Note:** This newsletter has hyperlinks all over but their formatting may not show, so please hover your cursor where you might expect one.



Happy New Year!!! Hoping everyone that travelled over closure made it there and back easily — or at least made it!

**TRAINING & QUALIFICATION****24140 Intro to LANL Engineering Standards – NEW DATES AND TIMES!! January 30 – Feb 2**

Jan. 30 – Feb 2 (must attend all 4 days), 2:00-4:00 PM (**NEW TIME**), MS TEAMS  
Attend each day to receive credit (it's 8 contact hours, despite what UTrain may say). You'll need to block your own calendars. Register in UTrain. If that fails, contact Nick Jones ([n.jones@lanl.gov](mailto:n.jones@lanl.gov)) or Sadonna Tapia ([squires@lanl.gov](mailto:squires@lanl.gov)) with Z number (or Stan Hayes). 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, and **only taught a few times a year--so try to attend.** ALSO, apologies on the time change from original set-up; if there are a lot of people on the East coast that can't make it, someone please let me know how many are involved. (Might accommodate in another session mid-March).

### **COME WORK ON STANDARDS!**

The job listing for two new standards people has just posted. Please consider joining the Conduct of Engineering Office and improving the standards. **Alan Yaeger** has just joined the team and we need another couple of people as well!!

Job# IRC116033

Organization: ES-FE/ENGINEERING SERVICES-FACILITY ENGINEERING

Job Title: Engineering Standards Expert (Nuclear Facility Engineer 3-4)

Posting Scope: Internal/External

Appointment Type: Regular

Number of Openings: 2

Closing date: 17 June 2023

**See posting and apply here:**

[https://jobsp1.lanl.gov/OA\\_HTML/OA.jsp?OAFunc=IRC\\_VIS\\_VAC\\_DISPLAY&OAMC=R&p\\_svid=116033&p\\_spid=5329395&p\\_lang\\_code=US](https://jobsp1.lanl.gov/OA_HTML/OA.jsp?OAFunc=IRC_VIS_VAC_DISPLAY&OAMC=R&p_svid=116033&p_spid=5329395&p_lang_code=US)



### **PRESSURE SAFETY PROGRAM REVISED**

Per Ari (Ben) Swartz, Chief Pressure Safety Officer, P101-34 r9 Pressure Safety and P101-5 r5 Cryogens were released provisionally on December 5.

The record of revision for P101-34 says: Major revision. Pressure safety administrative control requirements and implementation process established in P101-34, associated implementation Attachments A–D, and Forms 2305 through 2310. Previous Attachments A and B (Rev. 8) moved to [P101-5, Cryogens and Compressed Gases Health and Safety Requirements](#). [PSP-GUIDE-001](#) developed to augment PSD use. Pressure system design process remains in [ESM](#), Chapter 17, *Pressure Safety*.

If you click on the current revision listed on the LANL policy page for safety, <https://int.lanl.gov/policy/safety.shtml>, and then open the current procedure, the link for the provisional document is a yellow button at the top like this:

<b>Procedure</b>	Los Alamos National Laboratory
	<b>No: P101-34</b> Revision: 8
	Issued: 12/22/21 Effective Date: 12/22/21
<b>Pressure Safety</b>	<a href="#">Click Here to View Provisional Document</a>

There is a transition plan built into the new rev. 9. Also, users may begin using the new program now according to the Pressure Safety Committee (Ch. Robert Payment). For questions on the program, please contact Pressure Safety Program Manager Daniel MacDonald.

PSCS: Daniel recently wrote that the Pressure Safety Certification System (PSCS) database has been revised and renamed the Pressure System Database (PSD). There is a helpful [PSP-GUIDE-001](#) located in the PSCS Tab on the Pressure Safety Webpage. If you have any questions regarding the PSD, please send email him directly or via [PSD\\_admin@lanl.gov](mailto:PSD_admin@lanl.gov)



**LANL STANDARDS ISSUED IN DEC** <https://engstandards.lanl.gov/>

**Tailored Standards Manual [STD-342-600](#)**

Issued Rev. 1, 12/23/2022

Summary: Revised cost to under \$50M from \$20M and applicability to “commercial construction” concept. Updated and expanded throughout including systems engineering. Incorporated outstanding variances. Posted to the website. Thanks to Christine Honey.

Posted [Reference: VAR-10466 on TSM](#) (governs usage of all revisions, is being updated)

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

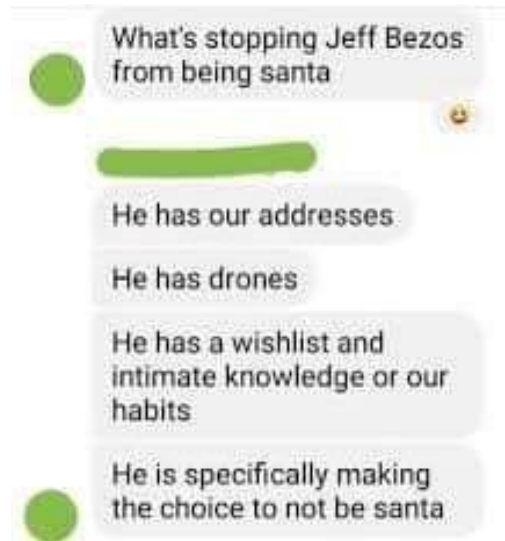
ESM Chapter(s)	Section	Title	Rev.	Date	Comments
Chapter 1 - General	Z10 Att. F	Specifications	-	-	IQPA-IQ-FD-090000 Specification Checklist posted as a reference <a href="https://caosp.lanl.gov/forms/default.aspx">https://caosp.lanl.gov/forms/default.aspx</a> (internal link; see IQ group)
Chapter 1 - General	200/210/230	Attachment 1: CMMS Upload Workbook	1.5	12/15/2022	Additional O2 monitor data requirements on worksheet (new defined on Req't fields tab; other clarifications there). 210/230 revisions on those tabs. Thanks to Charlie Nuss, Keeper of the Lists.
Chapter 13- Welding, Joining & NDE; Volume 6, Welding Inspection & General NDE	6-01	WIGN 6-01 Welding Inspector Qualification	2	12/19/2022	Clarification of language; addition and deletion of definitions. Visual record became FM01. Thanks to David Harvey and POC David Bingham.
		Appendix A - Inspector Certification (Sample)	2		Certificate became App A and sample.
		Form 01 - Visual Acuity Record	2		Admin changes only.
	6-02	WIGN 6-02 NDE Inspector Qualification and Performance	2		Added SME and Responsible Level III roles. Clarified in 5.2 that AWS CWI and SCWI still require examination before certification as LANL VT Level II. Visual record became FM01. Added procedure approvals and FM02 for deviations to same, thus 6-02 title change. Modifications for clarity, including removal of requirements stated in Att 1. Thanks to POC David Harvey.
		Attachment 1 - LANL NDE Personnel Qualification and Certification Procedure	8		Completely revised to adopt ASNT CP-189-2020 in lieu of SNT-TC-1A-2016/18. Became Att. 1 (was Att. 3). Thanks to POC David Harvey.
		Form 1 - Visual Acuity Record	2		Admin changes only.

		Form 2 - Procedure Deviation Approval Form	0		Initial issue. Thanks to POC David Harvey.
--	--	--	---	--	--

**Master Spec Sections [STD-342-200](#)**

Section Number	Rev.	Section Title	Effective	Summary
01 3300	Dec	Submittal Procedures -- Attachment A Submittal Log (xls) and Instructions	12/15/2022	Log converted to Excel Workbook for improved functionality of development and tracking purposes. Has instructions for editing and printing on first tab and separately (more detailed). A huge thanks to Forrest Blackburn and Kilkee Flynn!
06 1000	4	Rough Carpentry	12/12/2022	Updated references and other minor changes. Thanks to POC Scott Richardson.
06 2000	3	Finish Carpentry		
06 4100	3	Architectural Wood Casework		
07 0150.19	4	Preparation for Re-Roofing	12/13/2022	Updated references and other minor changes. Thanks to POC Scott Richardson.
07 0155	4	Roof Patching		
07 1113	4	Bituminous Dampproofing		
07 1326	2	Self-Adhering Sheet Waterproofing		
07 2100	4	Thermal Insulation		
07 2400	4	Exterior Insulation and Finish Systems		
07 4113	5	Metal Roof Panels		
07 5050	3	Membrane Roofing General Provisions		
07 5213.13	3	Atatic-Polypropylene Modified-Bitumen Roofing, Cold-Applied		
07 5217	2	Styrene-Butadiene-Styrene Modified-Bituminous Membrane Roofing, Cold-Applied		
07 6200	5	Sheet Metal Flashing and Trim		

07 7100	3	Roof Specialties		
07 9200	5	Joint Sealants		
08 1100	3	Metal Doors and Frames	12/14/2022	Updated references and other minor changes. Thanks to POC Scott Richardson.
08 1213	4	Hollow Metal Frames		
08 1400	5	Wood Doors		
08 3323	4	Overhead Coiling Doors		
08 4113	4	Aluminum-Framed Entrances and Storefronts		
08 5113	5	Aluminum Windows		
08 8000	6	Glazing		
09 6816	3	Sheet Carpeting		
09 6900	5	Access Flooring		
09 9100	5	Painting		
10 1405	4	Exterior Signage		
10 1410	4	Interior Signage		
10 2113.13	4	Metal Toilet Compartments		
10 2800	3	Toilet & Bath Accessories		
11 5311.19	1	Chemical Resistant Coatings for Gloveboxes	12/15/2022	Updated references and other minor changes. Thanks to POC Scott Richardson.
12 3100	5	Manufactured Metal Casework	12/22/2022	Administrative changes only.
33 4000	4	Storm Drainage Utilities		
33 5100	11	Natural-Gas Distribution	12/22/2022	Added 8400 BlackStripe and new WPS table. Various updates and clarifications to text and authors notes. Thanks to Misha Gallegos, Ari (Ben) Swartz, POC Jon Stein.



**From the 1/3 LANLToday:**

[Share your ideas for Engineers Week](#)

Employees, students and postdocs from all engineering organizations are invited to submit ideas by Jan. 20. Both R&D and operations-based projects are welcome.

#### **DOE TECHNICAL STANDARDS ACTION**

[Tech Stds Program postings](#) in the past month on the [Technical Standards Portal](#):

#### **[DOE-STD-1196-2022, Derived Concentration Technical Standard](#)**

This Standard (hereafter referred to as the "Standard") contains DOE-approved derived concentration values (also referred to as DCS values) and effective dose coefficients that may be used in estimating doses, supporting pathway modeling, and comparing measurements to criteria provided in DOE Order (O) 458.1, Radiation Protection of the Public and the Environment, Chg 4, September 15, 2020. DOE O 458.1 invokes the Standard to provide DCS values for liquid effluents in comparison to established criteria for determining if Best Available Technology (BAT) evaluation processes is required if the DCS values are exceeded. The BAT process is completed to determine what treatment options are appropriate to comply with DOE O 458.1 requirements. Supersedes DOE-STD-1196-2021, dated 7-7-2021

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

They pay me to build pipes, not to move rocks.



No comment.

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

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

- **Training & Qualification**
- **Code Adoptions: NEC; Download 2015 ICC and IAPMO Codes Now**
- **Concrete Mixes Changing. Again.**
- **ES-DO and ES-FE Personnel Changes**
- **LANL Standards Issued in Dec**
- **Engineering Processes News**
- **National Standards Action**
- **DOE Standards Action**
- **MSS Document Changes**
- **When Good Conduct of Engineering Isn't Followed**

**The views expressed in this email are not necessarily those of my employer.  
To request a change to this newsletter's distribution, please contact me.**

---





**Engineering Standards Update**  
Topics this month: January 2023

---

Tobin Oruch, Engineering Standards Mgr  
Los Alamos Nat'l Lab, Conduct of Eng Program Office  
(505) 665-8475 [oruch@lanl.gov](mailto:oruch@lanl.gov) <https://engstandards.lanl.gov/>  
*Please consider the environment before printing this or any email*  
(With the support of many others in the CoE Office. [Contacts for them](#))