

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 design, repair, and alteration of LANL facilities and the programmatic equipment within them. [[IMP 342](#)]

Topics this month:

- **LANS Contract App G -- Upcoming Changes**
- **Upcoming IMP and Standard Changes**
- **I&C and Other Courses Available**
- **Standards POC Changes -- I&C, Nuclear**
- **LANL Standards Issued in September**
- **Last Month's Update Topics**

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

LANS CONTRACT APP G -- UPCOMING CHANGES

In late September, LASO was processing a Contract Mod to modify the DOE Orders in LANS Prime Contract Appendix G, to be effective Oct 1. Pending changes of possible interest to readers of this Update include adding DOE O 420.1B, Facility Safety vice 420.1A and adding DOE O 414.1C, Quality Assurance vice 414.1B. Expect to see these changes in the near future at the new Prime Contract Management [website](#) or LASO contract [website](#).

LANL is also compiling the deliverables needed for compliance with all the Orders in the contract. One among these Orders and of interest to the LANL Standards Program is DOE O 252.1, Technical Standards Program, new to LANL on June 1. This Order requires LANL participation in the Headquarters program that maintains the DOE Technical Standards and encourages the use of non-DOE, national standards wherever possible. LANL is in compliance with this Order, although must continue to report participation in consensus standards development (authoring, maintaining) annually as discussed in last month's Update topic "Are You on a National Standard Committee?"

UPCOMING IMP AND STANDARD CHANGES

Due to be approved today, IMP 341-Conduct of Engineering is being revised to also include the Engineering Standards and Engineering Training and Qualification Programs (in addition to Engineering Processes). Concurrently, former IMP 342 on Standards is being revised to become Design Authority. IP 340-Engineering is also being revised. These events, along with the Master Spec conversion last February and the many organization and contract changes in June, are necessitating the following administrative changes to the LANL Standards in October:

1. Renumbering of the Engineering Standards Manual to ISD 341-2
2. New ESM Introduction Section issuance (selected material formerly in IMP and ESM Chapter 1)
3. Entire ESM update for administrative changes
4. Companion documents to ESM (Master Specs, Standard Drawings, Drafting Manual), while still requirements, will no longer carry ISD numbers

In addition to these administrative-only changes, other ESM changes expected in October include technical revision of:

Chapter 1 Section Z10-General Requirements for all Disciplines;

Chapter 7 Electrical: revision of Sections D5030, D5090, G4010, and G4020;

Chapter 13 Welding: minor revisions to GWS 1-12 (Administration) and WPS 3-01; and

Chapter 16 IBC Building Safety Program -- NEW

The revised IMP 341's institutional CoE program defines policies, programs, practices, technical standards, functions, and training & qualification associated with the performance of engineering and technical work. These are further defined in these three ISDs due to be issued this month:

- ISD 341-1, Engineering Processes Manual, and its appended Administrative Procedures,
- ISD 341-2, Engineering Standards Manual and its companion documents, and
- ISD 341-3, Engineer Training and Qualification Manual and its appended Qualification Standards.

The new IMPs will soon appear on the Policy Center website's Engineering [section](#). Look for them on the new Conduct of Engineering Program Office [website](#) coming soon, too.

I&C AND OTHER COURSES AVAILABLE

I&C: A new course on the Instrumentation and Controls Chapter of the ESM is now available. It is Course 40372, and a waitlist will be available soon at

http://eshtraining.lanl.gov/pls/gencouraxs/Cour_By_Number?CourseNumber=40372

Electrical: The Electrical Standards Course 17998 will be taught next on Nov 6. Register at

http://eshtraining.lanl.gov/pls/gencouraxs/Cour_By_Number?CourseNumber=17998

Other courses -- structural design (intro and advanced), Intro to the LANL Standards, and the Drafting Manual (intro and advanced) -- are also open for enrollment via waitlists at

http://engstandards.lanl.gov/trn_courses.htm

Enroll through CT-ESH using links above, call 7-0059, or e-mail esh-registration@lanl.gov

STANDARDS POC CHANGES -- I&C, NUCLEAR

Mike Clemmons has replaced Mel Burnett as the POC for Instrumentation and Control and ESM Chapter 8; Mike is the Team Leader for Process and Automation in FM&E-DES.

Scott Day is now the Alternate POC for both the I&C and Nuclear Chapters; Scott is relatively new to LANL, and came from the commercial nuclear industry.

Standards POCs establish discipline-specific institutional design requirements through the Standards Program and are the technical authority for code and standard matters. Contact information for these and other POCs is on the Standards Homepage [POC](#) link.

LANL STANDARDS ISSUED IN SEPTEMBER

LANL Engineering Standards Manual ISD 342-1

Chapter 13 -Welding, Volume 3, Welding Procedure Specs 3-01 App A [WPS Index](#)

1000-R/4140 Rev. 0

2010/1000-8 Rev. 1

7000-PVC- Rev. 1

LANL Master Specifications Manual ISD 342-2

03 3053 R1 - Miscellaneous Cast-in-Place Concrete - Added 1.5.B for compliance to water discharge EPA and NMED has outlined how concrete truck washout, among other items, is to be dealt with.

08 3100 R1 - Access Doors - Updating of references, correction of typos, confirmation of manufacturers.

08 3323 R1 - Overhead Coiling Doors - Added warranty provision, correction of typos, confirmation of manufacturers.

08 4113 R1 - Aluminum-Framed Entrances and Storefronts - Edited warranty provision to mftr's standard, correction of typos, confirmation of manufacturer's

08 8000 R1 - Glazing - Added LEED Credit Criteria, edited warranty provision of mftr's standard, correction of typos, confirmation of manufacturer's

22 1500 R1 - Compressed-Air Systems - Added note referencing Drawings ST-D2090-1 to info within "stars" on page 1, added last sentence to info within "stars" at Section 2.12, and deleted "No Substitution" for Torpedo Oil/Water Separator.

26 0519 R1 - Low Voltage Electrical Power Conductors and Cables -

- Expanded conductor color codes to include 120/240V systems and switch leg Conductors.
- Clarified MC cable specification to include an insulated copper equipment grounding conductor.
- Clarified requirements for compression connectors on large conductors.
- Updated pulling lubricant specification.
- Added requirement to install MC cable per new NECA 120.

26 2500 R0 - Enclosed Bus Assemblies- Initial Issue.

26 2726 R1 - Wiring Devices - Revisions to the specification include self-testing GFCI receptacles, clarification of heavy duty receptacle requirements, and updates to occupancy sensing lighting control switch catalog numbers.

31 2323.33 R1 - Flowable Fill- Added Section 1.6, Job Conditions

LANL Standard Drawings and Details ISD 342-3

Mechanical

Deleted M-6000 series PFD and P&ID examples (superseded by D-6000 series under I&C)

Electrical

D5000-1 R2 - Legend and General Notes

D5000-2 R2 - One-Line Diagram

D5000-3 R2 - Circuit Designations and Electrical Identification Diagram

D5010-1-R2 - Grounding System Diagram

D5010-2-R2 - Isolated Ground System Diagram

D5020-1 R2 - Motor Control Wiring Diagrams

D5030-1 R2 - Telephone-Data Equipment Closets and Riser Diagram

D5030-2 R2 - Fire Alarm Riser Diagram

G4010-39 R0 - Pad-Mounted Equipment Protection and Barrier Pipe Details

I&C -- New PFD and P&ID Example Drawings

D-6000 Rev 0 - HVAC Air Flow Diagram

D-6005 Rev 0 Technical Facility Process Flow Diagram

D-6010 Rev 0 Technical Facility HVAC Process and Instrumentation Diagram

D-6015 Rev 0 Office Building HVAC Process and Instrumentation Diagram

D-6020 Rev 0 Cooling Water Process Flow Diagram

D-6025 Rev 0 Cooling Water Process & Instrumentation Diagram

D-6025 Rev 0 Cooling Water Process & Instrumentation Diagram

LAST MONTH'S UPDATE TOPICS

If you did not get last month's e-mailed Update, back issues are posted on the Standards Homepage. The September Update topics were:

- **Standards Courses in September**
- **Are You on a National Standard Committee?**
- **Industrial Truck Standards Available**
- **Documents For Labwide Review**
- **LANL Standards Issued in August**
- **DOE Standard Actions**

To request a change to this newsletter's distribution contact Tobin Oruch, oruch@lanl.gov.
Previous issues of this Update are available; click "Monthly Update" below the Google search on
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