ANSI/ASSE Z117.1 CONFINED SPACES STANDARD
APRIL 2016 UPDATE - ENTERING INTO FINAL STAGES OF REVISION

ASSE members and Occupational Safety and Health Professionals continue to ask for a status on the pending revision of the ANSI/ASSE Z117.1 Standard (Safety Requirements for Confined Spaces) and the proposed new standard ANSI/ASSE A10.43. Both of these standards address confined space entry, but A10.43 is meant for construction and demolition operations. This article will focus on the current ongoing revision of Z117.1. There will be an additional article for A10.43.

Z117.1 has been in existence for literally decades and the consensus is that the requirements of the standard surpass the federal requirements in CFR 1910.146. We have continued to hear that the Z117.1 Standard is more stringent from the perspective of overall management and coordination of confined space entry and the program requirements are more stringent. As a result, we continue to see examples of leading companies and organizations using the standard as the basis for their own confined space entry programs.

The standard itself continues to be seventeen different sections and a series of annex materials that can assist the OSH Professional working with confined space entry hazards and exposures. The important news is that the Z117.1 Standard is nearing its final steps in the revision process. As of this month the appeals notices have been released, which is a step required under our accredited procedures to advise unresolved objectors to the standard that it is being prepared for submission to the American National Standards Institute as a candidate for an American National Standard. The intent is to submit the standard to ANSI sometime in May for review and approval. Following approval the standard would then be readied for publication, which means that a new and published standard should be available sometime during Summer 2016.

But, the main question we have from the OSH community is in regards to the changes from the previous versions.

**Key differences between the 2009 and 2016 versions**
There are some extensive editorial changes but the overall structure, focus, and direction of the standard did not change. That being said, the committee is looking at some significant changes to some of the technical requirements in the standard.

The basic logic for a confined space entry did not change and the committee still continues to believe that the logic used in Z117.1 is still applicable both in the United States and on a global level as well. That diagram has historically been part of Z117.1, was not changed, and continues to be the overall concept driving the standard. That chart is included as part of this article.
Logic Diagram for Confined Space Entry

Scope (Section 1)

Definitions (Section 2)

Identification of Hazards (Section 3)

Evaluation of Hazards (Section 3)

Permit Required?

No

Non-Permit Confined Space (Section 4)

Entry Requirements as Needed (Section 6 - 17)

Yes

Proceed With Entry

Periodically Re-evaluate Hazards and Operations

Activities or Conditions Change?

Yes

No

Complete Work

Yes

Permit Required Confined Space (Section 5)

Entry Requirements (Section 6 - 17)
The Z117 ASC is planning to change the title on the final standard to more accurately address the activity: “Safety Requirements for Entering a Confined Space. The committee believes this gives more comprehensive view of the standard instead of just addressing the requirements of the space itself. There are some proposed significant edits and changes to the definitions. Changes in terminology for the entry supervisor were extensive and were based upon the comments and suggestions made during the last revision of the standard in 2009. One of the other areas dealt with the definition of oxygen enriched and deficient atmospheres. We also included a chart that should help with some of these question. There is always some question with the intent of definitions, but the Z117 ASC has traditional used the definitions and terminology to help drive the standard.

Operations and Confined Space Entry – Key Changes
Perhaps one of the more critical areas for OSH Professionals and confined space entry deals with the overall issue of the identification and evaluation of a confined space: This section (Section 3) was changed in regards to the informative columns because the committee believed that more focus needed to shift from that of coordination to comprehensive management of the space, which requires a different mindset. Several members have commented that, in their opinion, these changes will be significant for OSH training in the future. Public review also indicated that this section of the standard should be viewed as more robust than CFR 1910.146. From the implementation perspective this would mean that the OSH Professional would need to be more proactive in regards to the identification and classification of sites they are responsible for.

One of the other critical, and underestimated areas, addresses non-permit required confined spaces. We continue to hear, and rightfully so, that more is needed on permitted spaces. However, the concern of the Z117 ASC is that non-permitted spaces also can have hazards and exposures that need to be addressed: The changes in the standard probably would not be viewed as substantive but there were a number of editorial changes to improve readability and implementation. The language in the informative column on “Controls” was strengthened even though it needs to be remembered that this language is informative and not a definitive portion of the standard. This was an issue of contention for a number of committee members and language in the standard should hopefully address that issue.

The heart of the operation section of the standard continues to be Section #5: Permit Required Confined Spaces. There were a number of changes to this section mostly of editorial in nature. Public review indicates the apparent consensus that the process for permitted spaces in Z117.1 is more robust than CFR 1910.146 in the areas of training, testing, and reevaluation. Perhaps the most substantive change included in this section of the standard addressed: “The identification of the test instrument, the serial number of the instrument, the calibration date, the tester’s name and the type of atmospheric tests
The permit also needs to indicate the acceptable limits of the confined space atmosphere, and the results of atmospheric tests with date and time entered”.

Sections #6 & #7: The changes and edits to these sections were considered to be mostly editorial in nature. There are several substantive editions, but perhaps the most significant change was to include a new section “Atmospheric Tester”. This was an extensive area of debate for the committee in regards to the competence of the person doing the testing. From the perspective of implementation this would be a significant change for OSH Professionals since the committee believed previous standards and other publications were not clear on the requirements for a tester.

However, what really makes the revision significant addresses the changes to the training sections. Going into the revision the Z117 Committee believed that the training requirements needed to be strengthened and clarified. That is what the committee did the sections on training were completely reorganized and rewritten with more of an emphasis being placed on training and to help ensure that the recipient is able to practically use the information they received via training during and prior to a confined space entry.

Appendices: There are significant changes to the appendices to address some of the changes in the standard.

Conclusion
What we intend to do is release both the Z117.1 and A10.43 Standards sometime during Summer of 2016. We will have a package deal and also plan to offer a webinar, which are tentatively planning to call “Confined Spaces Palooza”.

For more information about the ongoing revision of the ANSI/ASSE Z117.1 Standard please contact:

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For more information about Z117.1 please visit the website and read some background materials on the standard.