Important (and NEW) classifications and definitions of confined spaces:

1. **Continuous System- Permit required confined space (CS-PRCS)** – Is part of a larger confined space (for ex., sewers) and the employer cannot isolate it from the larger confined space. This type of confined space has the potential of hazard release from the larger confined space.
2. **Permit required confined space (PRCS)** – Contains a hazardous atmosphere, trapping hazards or any other physical hazards.
3. **Controlled Atmosphere confined space (CACS)** – Ventilation alone will control the atmospheric hazards. No physical hazards are present.
4. **Isolated Hazard confined space (IHCS)** – All physical and atmospheric hazards are isolated, (eliminated or removed).

Overview:

The 1926 standard for confined spaces contains more sections and detailed specifications that the 1910 rules (**See table A1**). A basic outline for the new proposed rule is as follows:

Section 1926.1201—Introduction
Section 1926.1202 – Scope
Section 1926.1203 – Definitions
Section 1926.1204 – Worksite evaluation, Information exchange and coordination.
Section 1926.1205 – Atmospheric Testing and Monitoring
Section 1926.1206 – Classification and Precautions
Section 1926.1207 – Reassessment
Section 1926.1208 – Permit-Required Confined Spaces **(PRCS)**
Section 1926.1209 – PRCS – Initial Tasks
Section 1926.1210 – PRCS – Preparing for entry
Section 1926.1211 – PRCS – During entry
Section 1926.1212 – PRCS – Terminating Entry
Section 1926.1213 – PRCS – Rescue Criteria
Section 1926.1214 – PRCS – Entry permits
Section 1926.1215 – Continuous System – PRCS **(CS-PRCS)**

Section 1926.1216 – Controlled Atmosphere Confined Spaces – **(CACS)** Requirements for Classification and Accident Prevention Protection.
Section 1926.1217 – Isolated – Hazard Confined Spaces **(IHCS)** – Requirements for Classification and Accident Prevention and Protection.
Section 1926.1218 – Equipment
Section 1926.1219 – Records

Notes:

Weakness points and unanswered questions are red. *Strengths are green and in italics.* Questions or doubts are left bolded in black.

The 29 CFR Part 1926 proposed rules for Confined Spaces in Construction is more comprehensive and detailed than the already written rule for General Industry, (**although this program is NOT required to be written, vs. a required written program in 1910**). Basic differences and interesting points include: (See also Table 1 on the proposed 1926 rule).

- The program is not required to be written, but, most of the elements in the program HAVE to be supported by written documentation.

- Four different classifications of confined spaces were **added**, such as: 1) Continuous System- Permit required confined space **(CS-PRCS)**, 2) Permit required confined space **(PRCS)**, 3) Controlled Atmosphere confined space **(CACS)**, and 4) Isolated Hazard confined space **(IHCS)**.

- These classifications are related to the hazard(s) level. (CS-PRCS are more hazardous than IHCS).

- The proposed rule will apply to confined spaces AND will supplement any other pertaining standards that are already implemented. Ex: Welding in confined spaces. **(???Does this also apply to trenching and excavations???)**

- A difference between host employer and controlling contractor is established, **(Not clear).**

- Also, establishes the responsibilities of the host employer and controlling contractor vs. the contractors present at the site. **Host employer and controlling contractors are *REQUIRED to share information and coordinate activities between ALL the contractors on site*. (The host employer or controlling contractor is not responsible for obtaining any information that it does not have).**

- Under 1926.1204, paragraph (b), "contractors are REQUIRED to first determine what spaces are confined spaces and whether or not they are subjects to any hazards." *Paragraphs (b) (1) thru (b) (4) list specific instructions on how this will be conducted. Paragraph (c) makes the contractors responsible for sharing this information with the host employer or the general contractor.*

- The proposed rule gives more flexibility to the contractor on how to classify a confined space, and how to address the identified hazards. **If the employer determines that the confined space is not subject to any hazards, it will not be classified as above and no safety precautions need to be taken.—see 1926.1201 paragraph b(1). (Note: The proposed rules also state that a confined space is prone to contain hazards that "tend to be unseen and unrecognized until it is too late to escape". A knowledgeable or competent person's role in identification and classification of the confined space IS NOT addressed in this section.)**

- The contractor will also be responsible for training and informing its employees about identified hazards and methods to ensure the safety and health of employees. **(Again, a knowledgeable or competent person's role in identification and classification of the confined space IS NOT addressed in this section.)**

- The rule specifies that employers are encouraged to try to eliminate any physical or other hazards in order to classify the confined space with the lowest hazard level possible. *It makes the distinction that a CS-PRCS or a PRCS can be documented as CACS or IHCS ONLY if*

physical and atmospheric hazards are eliminated or isolated. This does not restrict the employer to classify a lower hazard level confined space (CACS) as a higher hazard level confined space (PRCS).

- There is a Workplace evaluation, information exchange and coordination standard, 1926.1204. **(Although a written program is not required, supporting documentation will be necessary to comply with the rules in this standard.)**

- Reassessment procedures are discussed in 1926.1207. (*A list of events that will require a reassessment of the confined space is provided, although it clearly states that the list will not be limited to the listed events).*

- Monitoring is addressed in 1926.1205 paragraphs (a). The terms "periodically" and "as necessary" are used to determine the frequency of monitoring. **(Gray area determining monitoring requirements. Also, contradictory to the "continuous monitoring required in latter paragraphs).**

- Nevertheless, on 1926.1211 paragraph (b) states that "monitoring must be continuous unless the employer can demonstrate that the equipment is not commercially available or periodic monitoring is sufficient." (*It gives special emphasis to the difference between general industry and construction, since in a construction setting it is more difficult to predict hazardous levels of contaminants in the atmosphere*).

- 1926.1205 paragraph (b) requires employers to provide medical facilities that treat employees exposed to certain atmospheric hazards. **(Another gray area over who will be ultimately responsible for this; host employer/controlling contractor or contractors??)**

- 1926.1209 provides more "specific information to employers about how to limit PRCS access to authorized entrants at construction worksites."

- Among the requirements to limit the entry to PRCS are:
  - Use of barriers or physical restrictions
  - Post signs
  - Sharing of information with the controlling contractor and the measures used to prevent entry
  - Only "authorized entrants" will be allowed to enter
  - Training – Inform employees about the responsibilities assigned according to who will be entry supervisors, attendants, authorized entrants, and rescue-service employees.

- *Even though the program does not have to be written, paragraph (d)(5) states that the "employer will be required to maintain training records for each employee".*

- As for PRCS entry and rescue operations, there are many similarities with the general industry standard; nevertheless, differences and important (more detailed) specifications were added to the standard applicable for construction. These include:
  - *A hazard assessment will be required before "any cover is removed".* (1910.146 states that "Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed" – Involves hazard assessment, but is not as direct as the construction standard)
  - Specifies that if a hoisting system is used for personnel rescue, this will gave to be designed and manufactured for personnel lifting. *"Commercial hoisting systems not designed and manufactured specifically for personnel hoisting will not be permissible".* (This rule also gives the employer the flexibility of allowing a professional engineer to approve a job-made system).
  - A "mechanical retrieval device" must be provided and used for retrievals involving vertical lifelines over five feet. (No simple pulleys or anchor points – See p. 67377 second column, paragraph (a)(3)).

- Movable equipment present at the job site may be used as an anchor point for an employee life line, if heavy enough to serve as an anchor point and only if effectively locked out and tagged out.
- INTERESTING: Paragraph (a)(4) has a more detailed description of the types of equipment that is not allowed or suitable for PRCS retrieval. (Ex: equipment that increases the overall risk of an entrant, retrieval lines that could become entangled, wristlets or ankle straps "would be prohibited from being used as attachment points for retrieval lines).
- *As mentioned above, continuous monitoring is required, unless, periodic monitoring is proved to be enough for employee protection.*

- During rescue operations, similar to the general industry standard, the rule allows the employer flexibility on how to attach the harness to the employees' body. (Performance- based provision – see 1926.1213 paragraph (a) (2) (iv) (A).

- *The standard specifies that employers have to ensure that "rescue service employees practice the removal of dummies, mannequins, or people from a PRCS or from a simulated PRCS.*

- Entry permits for PRCS in construction are VERY similar to the General Industry requirements.

- 1926.1214 paragraph (b) (2) requires employers to review any other information from previous entry operations when reviewing the PRCS entries. This means that employers have to obtain this information from "sources other than cancelled permits". This is in addition to the similar requirements in 1910.146

- *CS-PRCS require continuous monitoring (as PRCS), nevertheless, the distinction is made that these confined spaces have an enhanced risk relative to the PRCS. Requirements for continuous monitoring are stricter on CS-PRCS. The burden of proof is on the employer to demonstrate that periodic monitoring would be sufficient to ensure*

that atmospheric hazards are not a threat to employees working in the CS-PRCS.

- *Early warning system is required for non-isolated engulfment hazards in CS-PRCS.*

- A Controlled Atmosphere Confined Spaces (CACS) classification was added to the construction std. **(The difference between CACS and IHCS is not clear in this section. The standard seems to make no distinction between the two in this section. – Need clarification).**

- When employers can isolate the physical hazards and control atmospheric hazards (by forced ventilation), without entering the space, they would not "be required to comply with the PRCS requirements during identification/implementation process.

- Forced ventilation will be used to control the atmospheric hazards in a CACS and the effectiveness of the forced ventilation will be determined by monitoring.

- It is interesting to note that in a CACS, if ventilation fails, the atmosphere will remain at safe levels. When monitoring determines that atmospheric hazard levels are rising, entrants can safely exit the space until ventilation is restored. (This makes it "unnecessary for employer to arrange for a rescue service as required for PRCSs).

- *The rule also makes emphasis on the fact that if the atmospheric hazards rise rapidly to unsafe levels, (in the event that mechanical ventilation fails), then the confined space shall be classified as PRCS and only mechanical ventilation may be an "inappropriate method" for controlling the atmospheric hazard.*

- *Isolation of physical hazards and controlled atmospheric hazards with forced ventilation in CACS has to be documented by WRITING*. (1926.1216 paragraph (d) (4) lists the specific contents that the written verification must include.)

- Under the training requirements, of 1926.1216 (CACS) paragraph (b)(2)(ii), the employer is required to train employees who are NOT authorized to perform entry rescues about the dangers of such rescues. (This requirement is not listed on the general industry standard).

- Paragraph (b) (2) (iii) (C) requires employers to ensure that employees exit a CACS when a hazard in the space arises for which the employees have not received training. (Another requirement not listed on the general industry standard).

- **???? 1926.1217 states that "When an employer isolates or eliminates all atmospheric and physical hazards in a space, the space would qualify for the IHCS classification. (Still a little unclear about the difference between a CACS and an IHCS).**

(*Personal interpretation: In a CACS the atmospheric hazard still exists is just kept 'under control' while in an IHCS hazards, both atmospheric and physical are eliminated or isolated in a way that the hazard will not affect the confined space. This makes the IHCS classification less hazardous since there are no hazards affecting the confined space.)

- Different from the training requirements for PRCSs, CS-PRCSs, and CACSs, documentation of training is NOT required for IHCSs.

Table **A1** – Comparison between 1926 and 1910 rules **:

1926 Proposed rules sections	1910 rules sections
Section 1926.1201—Introduction **Section 1926.1202** – Scope **Section 1926.1203** – Definitions **Section 1926.1204** – Worksite evaluation, Information exchange and coordination. **Section 1926.1205** – Atmospheric Testing and Monitoring **Section 1926.1206** – Classification and Precautions **Section 1926.1207** – Reassessment **Section 1926.1208** – Permit-Required Confined Spaces (**PRCS)** **Section 1926.1209** – PRCS – Initial Tasks **Section 1926.1210** – PRCS – Preparing for entry **Section 1926.1211** – PRCS – During entry **Section 1926.1212** – PRCS – Terminating Entry **Section 1926.1213** – PRCS – Rescue Criteria **Section 1926.1214** – PRCS – Entry permits **Section 1926.1215** – Continuous System – PRCS (**CS-PRCS)** **Section 1926.1216** – Controlled Atmosphere Confined Spaces – **(CACS)** Requirements for Classification and Accident Prevention Protection. **Section 1926.1217** – Isolated – Hazard Confined Spaces **(IHCS)** – Requirements for Classification and Accident Prevention and Protection. **Section 1926.1218** – Equipment **Section 1926.1219** – Records	**1910.146** (a) Scope **1910.146** (b) Definitions **1910.146** (c) General Requirements **1910.146** (d) Permit-required confined space program. **1910.146** (e) Permit system **1910.146** (f) Entry permit **1910.146** (g) Training **1910.146** (h) Duties of authorized entrants. **1910.146** (i) Duties of attendants **1910.146** (j) Duties of supervisors **1910.146** (K) Rescue and emergency services **1910.146** (l) Employee participation

** Note that the General Industry Standard only classifies confined spaces as permit required or not. The proposed rule for construction allows the employer to classify the confined spaces found on site with different classifications, depending on the hazards found and how will they be controlled.**

Table **A2- Summary:**

Observed Strengths	**Observed weaknesses**	**Interesting observations and comparisons**	**Questions or comments**
New and more detailed definitions for confined spaces – Allow employer to become more involved in eliminating and/or isolating hazards.			How will this standard affect trenching and excavations?? Can citations be issued using this standard in conjunction with the trenching and excavation construction std.??
Supportive documentation is required for hazard assessments, monitoring, training and other determinations.		No written program vs. written program required for 1910.	
Contractors are held responsible for sharing confined space information with the host employer or the general contractor.	No clear difference between host employer and controlling contractor.		
	A knowledgeable or competent person's role in identification and classification of the confined space IS NOT addressed.		The contractor is assumed to be a competent or knowledgeable??

Observed Strengths (cont.)	**Observed weaknesses (cont.)**	**Interesting observations and comparisons (cont.)**	**Questions or comments (cont.)**
The employer is required to provide medical facilities to treat employees affected by atmospheric hazards in the confined space.	Gray area over who will be ultimately responsible for this; (host employer/controlling contractor or contractors??)	The proposed rule gives special emphasis to the difference between general industry and construction monitoring requirements, since in a construction setting it is more difficult to predict hazardous levels of contaminants in the atmosphere.	Gray area over who will be ultimately responsible for this; (host employer/controlling contractor or contractors??)
More detailed description of the types of equipment that is **not** allowed or suitable for PRCS retrieval.	*'Movable equipment'* present at the job site may be used as an anchor point for an employee life line, if heavy enough to serve as an anchor point and only if effectively locked out and tagged out.	The proposed rule makes the distinction that a CS-PRCS or a PRCS can be documented as CACS or IHCS ONLY if physical and atmospheric hazards are eliminated or isolated. This does not restrict the employer to classify a lower hazard level confined space (CACS) as a higher hazard level confined space (PRCS).	

Observed Strengths (cont.)	Observed weaknesses (cont.)	Interesting observations and comparisons (cont.)	Questions or comments (cont.)
A hazard assessment will be required before “any cover is removed”		A hazard assessment will be required before “any cover is removed”. (1910.146 states that “Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed” – Involves hazard assessment, but is not as specific as the construction standard)	
The standard specifies that employers have to ensure that “rescue service employees practice the removal of dummies, mannequins, or people from a PRCS or from a simulated PRCS.		1926 rule specifies that if a hoisting system is used for personnel rescue, it will have to be designed and manufactured for personnel lifting. (This rule also gives the employer the flexibility of allowing a professional engineer to approve a job-made system).	

Observed Strengths (cont.)	**Observed weaknesses (cont.)**	**Interesting observations and comparisons (cont.)**	**Questions or comments (cont.)**
CS-PRCS require continuous monitoring (as PRCS), nevertheless, the distinction is made that these confined spaces have an enhanced risk relative to the PRCS. Requirements for continuous monitoring are stricter on CS-PRCS.		An early warning system is required for non-isolated engulfment hazards in CS-PRCS.	
	The difference between CACS and IHCS is not clear in this section. The standard seems to make no distinction between the two in this section. – Need clarification	Under the training requirements, of 1926.1216 (CACS) paragraph (b)(2)(ii), the employer is required to train employees who are NOT authorized to perform entry rescues about the dangers of such rescues. (This requirement is not listed on the general industry standard).	******CSHO understanding of this defference:***:*** In a CACS the atmospheric hazard still exists is just kept 'under control' while in an IHCS hazards, both atmospheric and physical are eliminated or isolated in a way that the hazard will not affect the confined space.

Observed Strengths (cont.)	Observed weaknesses (cont.)	Interesting observations and comparisons (cont.)	Questions or comments (cont.)
The rule also makes emphasis on the fact that if the atmospheric hazards rise rapidly to unsafe levels, (in the event that mechanical ventilation fails), then the confined space shall be classified as PRCS and only mechanical ventilation may be an “inappropriate method” for controlling the atmospheric hazard.		Paragraph (b) (2) (iii) (C) requires employers to ensure that employees exit a CACS when a hazard in the space arises for which the employees have not received training. (Requirement not listed on the general industry standard).	It is interesting to note that in a CACS, if ventilation fails, the atmosphere will remain at safe levels. When monitoring determines that atmospheric hazard levels are rising, entrants can safely exit the space until ventilation is restored. (This makes it “unnecessary for employer to arrange for a rescue service as required for PRCSs).
Isolation of physical hazards and controlled atmospheric hazards with forced ventilation in CACS has to be documented by WRITING.			