

Understanding C5 & C7 Alternate Entry & Reclassification

1910.146 Permit-Required Confined Spaces

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Understanding C5 & C7...

Alternate Entry & Reclassification of Confined Spaces OSHA 1910.146 PRCS

- **Permit Required or Non-Permit Required?**
- **Classify, reclassify, or declassify?**
- **And what in the world is an Alternate Entry procedure?**

With all these questions, it's no wonder safety professionals and industry workers get confused when assessing confined spaces. While much of the 1910.146 standard focuses on the requirements for Permit-Required Confined Spaces (PRCS), subparagraphs (c)(5) and (c)(7) provide guidance on conditions that allow entrants to forego the need for a permit, as well as several other requirements associated with entry permits. But it's not necessarily simple to follow.

Before we start, we're going to assume that you are already somewhat familiar with 1910.146 PRCS. For this article, we will focus on two sections of the standard: (c)(5) Alternate Entry and (c)(7) Reclassification. Some references contained herein may have been paraphrased, so we remind you to review the 1910.146 regulation in its entirety.

Here are a few questions to help you decide which subparagraph *may* apply.

Please note that these questions are not always easily answered without conducting a "permitted entry" to better understand the conditions within the space.

Preliminary Questions to Ask...

(c)(5) Alternate Entry

1. Is the **ONLY** hazard posed by the permit space an actual or *potential* hazardous atmosphere?
2. And, if yes, is continuous forced air ventilation alone sufficient to maintain safe entry conditions?
If so, you *may* be able to continue with the application of (c)(5).

(c)(7) Reclassification to Non-Permit Required

1. If there are **NO** actual or potential atmospheric hazards, can all other hazards within the space be eliminated* without entry into the space and remain eliminated during the entry?
If so, (c)(7) Reclassification *may* be applicable...
2. As required, using full permitting procedures to enter, do testing and inspection demonstrate that hazards within the space have been eliminated and will remain eliminated during entry?
If so, you *may* be able to continue with the application of (c)(7).

*OSHA Note: Control of atmospheric hazards through forced air ventilation does NOT constitute elimination of the hazards. Paragraph (c)(5) covers permit space entry where the employer can demonstrate that forced air ventilation alone will control all hazards in the space.

Beware: Combination/Hybrid Approach

One of the biggest misunderstandings that we see in the application of C5 and C7 is employers attempting to combine the provisions of both paragraphs into a sort of “hybrid” approach. OSHA has a [Letter of Interpretation](#) from 1995 that specifically addresses this concept. According to the LOI, the hybrid approach is prohibited as OSHA believes it is not in the best interest of a permit space entrant or the uniform application of the standard.

C5 Alternate Entry Procedures

Subparagraph C5 provides guidelines for employers to forego some of the requirements of entering a permit-required confined space if certain conditions can be met. There are a lot of intricacies involved in the provisions for Alternate Entry procedures, so it is probably best to take a line-by-line approach on this one.

What does (c)(5) say?

1910.146(c)(5)

*“An employer may use the **alternate procedures** specified in paragraph (c)(5)(ii) of this section for entering a permit space under the conditions set forth in paragraph (c)(5)(i) of this section.”*



First, let’s look at item (c)(5)(i) which lists the requirements that must be met **before** you can use (c)(5)(ii) or Alternate Entry Procedures.

1910.146(c)(5)(i)

“An employer whose employees enter a permit space need not comply with paragraphs (d) through (f) and (h) through (k) provided that...”

- (A) *“The employer can demonstrate that the only hazard posed by the permit space is an actual or potential hazardous atmosphere.”*

Subparagraph C5 provides guidelines to forego some requirements of entering a permit-required confined space IF certain conditions can be met.

Comment: The **ONLY** hazard, or potential hazard, posed by this space is the atmosphere.

(B) *“The employer can demonstrate that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry.”*

Comment: The **ONLY** thing required to make this space safe for entry is continuous forced air ventilation. OSHA provides clarification on “continuous forced air ventilation” in a [2005 Letter of Interpretation](#) which essentially establishes that:

1. Ventilation must create a **positive pressure** in the space where employees are working.
2. No employee may enter the space until ventilation has eliminated the hazards within the space.
3. The air supply must be from a clean source and not increase the hazard in the space.

(C) *“The employer develops **monitoring and inspection data** that supports the demonstrations required by paragraphs(A) and (B) of this section.”*

Comment: The employer must prove, through inspections and monitoring data, that the only hazard is the atmosphere and that it can be effectively controlled through the addition of continuous forced air ventilation.

(D) *“If an initial entry of the permit space is necessary to obtain the data required by paragraph (C) of this section, the entry is performed in compliance with paragraphs (d) through (k) of this section.”*

Comment: If you must make entry into the space to obtain monitoring data or perform inspections to prove that the only hazard is the atmosphere and that it can be effectively controlled through ventilation alone, then the initial entry **must comply** with all requirements of a permit-required confined space. In other words, it is still a permit-required confined space until it can be proven otherwise.



(E) *“The determinations and supporting data required by paragraphs (A), (B), and (C) of this section are documented by the employer and are made available to each employee who enters the permit space under the terms of paragraph (c)(5) of this section or to that employee’s authorized representative.”*

Comment: Once the inspection and monitoring data have been captured and it has been determined that the only hazard is atmospheric and that safe entry conditions can be maintained through ventilation alone, it must be documented and made available to anyone who will be required to enter the space, or to their authorized representative. Employees have a right to know that their workplace is safe!

(F) *“Entry into the permit space under the terms of paragraph (c)(5)(i) of this section is performed in accordance with the requirements of paragraph (c)(5)(ii) of this section.”*

Comment: Basically, if someone enters the space using the Alternate Entry procedure, they must comply with everything listed above *as well as* everything listed in (c)(5)(ii), Items (A) through (H), which we will cover in more detail later on (see box).

Here’s a quick recap of what we have learned about Alternate Entry (C5):

If we have a permit-required confined space in which the **only** hazard, or *potential* hazard, is the atmosphere – and we can effectively control the hazard through continuous forced air ventilation alone – then we may be able to use the Alternate Entry Procedure (C5).

Remember, we still must:

1. Prove it via inspections and monitoring data;
2. Document it; and,
3. Show it to entrants or anyone affected.

Again, if we must make entry into the space to perform the inspection or obtain the data, then we must treat it as a permit-required confined space until proven otherwise. If we can accomplish all of this, then we are no longer required to comply with permit-entry procedures as described in 1910.146 (d) through (f) and (h) through (k), which are listed below.

- Paragraph (d) Permit-required Confined Space Program
- Paragraph (e) Permit System
- Paragraph (f) Entry Permit
- Paragraph (h) Duties of Authorized Entrants
- Paragraph (i) Duties of Attendants
- Paragraph (j) Duties of Entry Supervisors
- Paragraph (k) Rescue and Emergency Services

Section (c)(5)(ii)

Here are the main takeaways from A – H:

- (A) Eliminate unsafe conditions prior to removing cover.
- (B) Protect the opening to prevent falls.
- (C) Test the atmosphere prior to entry.
- (D) There may be no hazardous atmosphere within the space when an employee is inside.
- (E) Continuous forced air ventilation shall be used (requirements outlined later).
- (F) Periodically test the atmosphere.
- (G) Immediately evacuate the space if a hazardous atmosphere is detected and re-evaluate the space.
- (H) Employer must verify through written certification that the space is safe for entry (requirements outlined later).

Now you are probably asking, “Wait a minute, I don’t need a permit, attendant, entry supervisor, or rescue team if I follow the Alternate Entry Procedure?” Yes, that is correct – provided all conditions are met and properly documented. However, there is still a list of requirements that must be met to make an entry. Essentially, (c)(5)(ii) (A) through (H) becomes your new “playbook” for safe entry using C5.

For those who noticed, Paragraph (g) (Training) is not included in the list – that is because it *still* applies. That’s right, we still must train our employees, there is no getting around this one!

OSHA REFERENCE

1910.146(g)(1) The employer shall provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned.

C5 Playbook... Alternate Entry

1910.146 (c)(5)(ii) (A) through (H)

Let’s look at a summary of these sub-items...

- (A) All conditions making the entry unsafe must be eliminated before removing the cover.
- (B) Once the cover is removed, the opening shall be protected by a temporary barrier that will prevent an accidental fall into the opening and protect employees working in the space from objects entering the space.
- (C) BEFORE entering the space, a calibrated direct-reading instrument shall be used to test for the following (in this order):
 1. Oxygen Content
 2. Flammable Gases and Vapors
 3. Potential Toxic Air Contaminants
- (D) There may be no hazardous atmosphere within the space when an employee is inside.
- (E) Continuous forced air ventilation shall be used as follows:
 1. Employees may not enter the space until continuous forced air ventilation has eliminated the hazardous atmosphere.
 2. Ventilation shall be directed to ventilate the immediate area where employees are or will be present within the space and shall remain continuous until employees exit the space.
 3. The supply for the forced air ventilation shall be from a clean source and not increase the hazards within the space.

(F) The atmosphere shall be periodically tested as necessary to ensure adequate prevention of hazardous atmosphere. Employees shall be provided with an opportunity to observe the testing.

(G) If a hazardous atmosphere is detected:

1. Space must be evacuated immediately.
2. Space must be evaluated to determine how the hazardous atmosphere developed.
3. Measures must be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.

(H) Before entry, the employer shall verify that the space is safe for entry through **written certification** that shall be made available to each employee entering the space, or their authorized representative. The certification must contain the following:

1. Date;
2. Location of the space; and,
3. Signature of the person providing the certification.

Roco's #1 Confined Space Safety Tip

Continuous (on-going) air monitoring in confined spaces saves lives!

Roco has found this to be one of the most important safety precautions you can take to increase the safety of your employees working in confined spaces.

C5 Alternate Entry Recap

As you can see, there are a lot of intricate details within the provisions of C5. However, if the only hazard in the permit space is atmospheric and it can be controlled through continuous forced air ventilation alone, then Alternate Entry *may* apply. Keep in mind, this evaluation process must be followed for *each* space that is under consideration for Alternate Entry.

And remember...you don't have to use the Alternate Entry procedure. Many facilities

prefer to require an entry supervisor, a permit, an attendant, and an on-site rescue team for maximum safety. After all, as we say, there's a safe way, and a **safer** way!

Many facilities simply choose to use full permit entry procedures as they feel it is a safer way of doing business.

C7 Reclassifying Permit-Required Spaces to Non-Permit Spaces

In this section, we will look at what many industry professionals refer to as the “reclassification” or “declassification” process. Subparagraph (c)(7) provides guidelines for employers to forego the normal requirements of entering a permit-required confined space *if* certain conditions can be met.

What does (c)(7) say?

1910.146(c)(7) “A space classified by the employer as a permit-required confined space may be **reclassified** as a non-permitted confined space under the following procedures...”

Comment: If an employer can demonstrate the following requirements, then they may consider the permit space as a “non-permit” required confined space. This means they can forego the normal requirements associated with a permit-required confined space.

C7 Playbook...Reclassification to Non-Permit Space

Let’s look at the four conditions identified in items (i) through (iv) of subparagraph (c)(7), aka, the “**C7 Playbook.**”

- i. The permit-required space may be reclassified as a non-permit required if the space poses **no actual or potential atmospheric hazards** AND all hazards within the space are eliminated* without entry into the space as long as the non-atmospheric hazards remain eliminated.

***OSHA Note: Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards. Paragraph (c)(5) covers permit space entry where the employer can demonstrate that forced air ventilation alone will control all hazards in the space.**



- ii. If individual(s) must enter the space to eliminate the hazards, or test and inspect that the hazards have been eliminated, it must be treated like a permit-required confined space until proven otherwise.
- iii. The employer shall document the basis for determining that all hazards have been eliminated through certification that must be made available to each employee entering the space. The certification must include date, location of the space, and signature of the person making the determination.

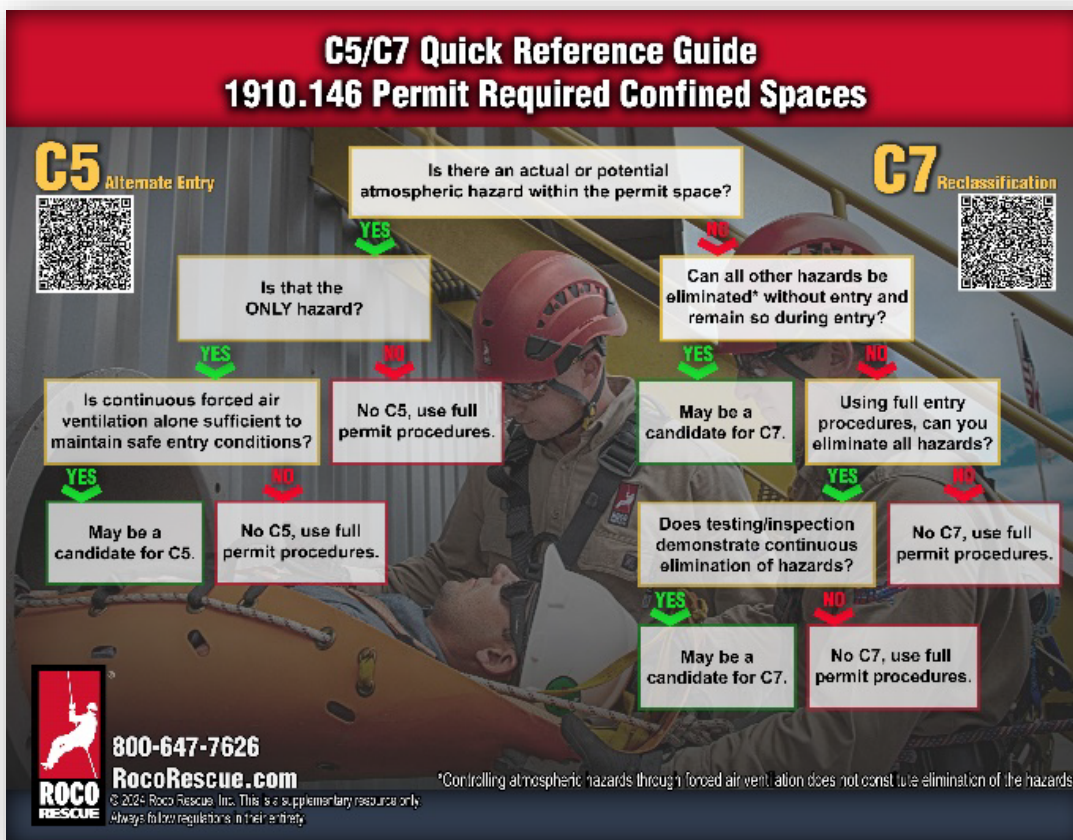
Comment: A supervisor, such as the Entry Supervisor, is responsible for certifying (signed authorization) that the space has been cleared for application of C7.

- iv. If hazards arise within a declassified space, each employee shall exit the space immediately and the employer shall reevaluate the space and determine whether it must be reclassified as permit required.

Comment: Remember, if you are dealing with a confined space that has an actual or *potential* atmospheric hazard – **C7 is not for you!**

Conclusion

Confined spaces continue to cause fatalities year after year, oftentimes with multiple fatalities per incident. This is why many facilities choose to treat all spaces as permit required, which can often be simpler and quicker in the long run. After all, the burden of proof is on you, the employer, for decisions made regarding the use of C5 and C7. Due diligence and proper documentation are critical with these applications. Ultimately, the goal is to increase the safety of our employees. Be wise in your decisions – lives are at stake!



Click here to download the [Roco C5/C7 Quick Reference Guide](#).



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