| DOCKETED | |
|---|---|
| **Docket Number:** | 25-BSTD-03 |
| **Project Title:** | 2028 Energy Code Pre-Rulemaking. |
| **TN #:** | 273590 |
| **Document Title:** | CA Statewide Utility Codes and Standards Enhancement Team Comments - 2028 Title 24 Compressed Air Dryer Alterations – Additional Information |
| **Description:** | N/A |
| **Filer:** | System |
| **Organization:** | CA Statewide Utility Codes and Standards Enhancement Team |
| **Submitter Role:** | Public |
| **Submission Date:** | 11/13/2026 12:29:16 PM |
| **Docketed Date:** | 11/13/2026 |

*Comment Received From: CA Statewide Utility Codes and Standards Enhancement Team*
*Submitted On: 11/13/2026*
*Docket Number: 25-BSTD-03*

## 2028 Title 24 Compressed Air Dryer Alterations â€“ Additional Information

*Additional submitted attachment is included below.*

CALIFORNIA ENERGY CODES & STANDARDS
A STATEWIDE UTILITY PROGRAM

# 2028 TITLE 24 COMPRESSED AIR DRYER ALTERATIONS – ADDITIONAL INFORMATION

November 13, 2026

California Energy Commission

Docket No. 25-BSTD-03

The California Statewide Codes and Standards Enhancement (CASE) initiative presents recommendations to support California Energy Commission (CEC) efforts to update California's Energy Code (Title 24, Part 6), including revisions to simplify and clarify existing code requirements. Three California Investor-Owned Utilities (IOUs)—Pacific Gas & Electric, San Diego Gas & Electric, and Southern California Edison—sponsored this effort.

On June 17, 2026, the Statewide CASE Team docketed a final CASE Report (comment 270764) recommending adjustments to the code language for compressed air systems. The proposed language would add requirements for compressed air dryers, and included proposed changes to when and how alterations of compressed air systems trigger mandatory compliance with Title 24. While most of the code change proposals in this CASE Report are reflected in the recently published Express Terms, the language relating to alterations of compressed air systems was not. This memo presents additional factors that support adopting the proposed language.

## Current Scope of Alterations Language is Unclear

The current Express Terms language does not expressly resolve whether replacing an individual compressed-air component, including an air dryer, is an alteration subject to permitting and code requirements, or whether replacing one component requires meeting code requirements for other, unaltered components. The CASE team's proposed edits make the recommended treatment explicit: component-level replacements are covered as alterations, and the compliance obligations for an

alteration apply only to the components being altered. This gives project teams and Authorities Having Jurisdiction a clear rule and avoids any interpretation requiring functional, unaltered components to be replaced early solely because another component is altered, which is consistent with alteration and permit provisions of Title 24, Parts 2 and 6.

## Additions or Replacements of Individual Compressed Air System Components Require a Permit to be Pulled

To ensure requirements for alterations to compressed air systems are enforced, a threshold question is whether users are required to pull permits when adding or replacing a component of the compressed air system, e.g., a compressor, piping or compressed air dryer. Title 24 plainly requires a permit for any alteration.

### Title 24, Part 6 Establishes the Scope of Alterations

Title 24, Part 6 defines "alteration" as follows (for simplicity, the definition in the Express Terms is used, though the same conclusion applies using older versions of the definition, and changes from prior versions are not indicated):

> **ALTERATION** is, for purposes of *Part 6*, any change to a building or system, excluding additions, that affects building features, such as water-heating, space-conditioning, lighting, electrical power distribution, or envelope. It also includes, but is not limited to, changes to outdoor lighting systems, *signs* located either indoors or outdoors, and *covered processes* regulated by *Part 6*. (See also "addition," "fenestration alteration".)[1]

This definition clearly includes "changes to … *covered processes* regulated by *Part 6*." Compressed air is a covered process regulated by Part 6.[2] The current language for alterations to compressed air systems is:

> **905.4** [Section 141.1] **Additions and alterations to existing buildings**. All *additions* or *alterations* of compressed air systems where the total combined horsepower (hp) of the compressor(s) is 25 hp or more in existing buildings that will be nonresidential, hotel/motel, or multifamily occupancies shall comply with the applicable requirements of Section 905.

---

[1] Title 24, Part 6, Section 201. Note that in this definition, "excluding additions" refers to the additions in the sense of adding conditioned space to a building, not the addition of a component to a system.

[2] *See* Title 24, Part 6, Sections 905.1 and following.

Part 6, Section 905.4 uses the term “alteration” and applies it specifically in the context of compressed air. The CASE Team’s proposed language would further clarify the specific systems that would be considered an alteration, instead of having the reader link the “applicable requirements of Section 905” to their specific project.

Other sections of Part 6 have similar alteration language applicable to components that have long been understood as requiring permitting.[3] Triggering permit obligations for alterations of compressed air systems is consistent with these other code requirements and does not lead to requiring permits for minor building changes that are not considered alterations or that are exempted from permitting requirements.

## There Are No Significant Exceptions to the General Permit Triggering Requirements that are Relevant for Compressed Air

### Title 24, Part 2 Establishes the Scope of Permitting

There are two ways that an alteration can be exempted from the requirement to pull a permit: (1) It can be expressly exempted through an exception to the substantive code language in Title 24, Part 6,[4] or it can be exempted from the general permitting requirements in Title 24, Part 2.[5] Title 24, Part 2 describes the obligation to pull a permit as follows:

> **105.1 Required.** Any owner or owner’s authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, *or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system*, *the installation of which is regulated by this code,* or to cause any such work to be performed, shall first make application to the building official and obtain the required permit.[6]

As described in Section 1.2.2 above, the definition of “alteration” in Part 6 applies to additions and replacements of compressed air system components. Part 2, Section 105.1 explicitly states that alterations trigger an obligation to pull a permit.

---

[3] For example, current Section 301.5.2 [*141.0(b)*] specifies requirements for alterations to components of existing nonresidential buildings, and Section 401.5.2.2.1 [*141.0(b)2C*] includes requirements for replacing components of space conditioning systems.

[4] *See, e.g.,* Title 24, Part 6, Section 905.4 [*Section 141.1*], Exception 1.

[5] *See* Title 24, Part 2, Section 105.1, 105.2.

[6] Emphasis added.

### Part 2 Contains No Relevant, Generally Applicable Exceptions to Permit Requirements

Title 24, Part 2, Section 105.2 contains several exceptions to the general requirement, but there are no exceptions that would generally apply to alterations of compressed air systems, except perhaps in specific circumstances depending on the scope of work.

The exception for minor electrical maintenance and repairs is narrow and explicitly refers to things like replacing a light bulb or connecting portable electrical equipment. This exception would not extend to the replacement of major components of mechanical systems.

Section 105.2 also includes a mechanical exception for "[r]eplacement of any part that does not alter its approval or make it unsafe," which could potentially be relevant in some circumstances. However, as Title 24, Part 6 would require approval for the alteration of the components specified in proposed section 905.4, this provision would only exempt the replacements of non-regulated components of the system.

In short, Title 24, Part 2 lays out the requirements for pulling permits involving alterations to mechanical and electrical systems, and does not include any exceptions broadly applicable to components of compressed air systems. Title 24, Part 6, in turn, defines "alterations" as including the replacement or change to a component of a compressed air system, and provides a specific list of affected components subject to the code. Therefore, a permit would be required when changing or replacing a regulated component of a compressed air system, making the alterations provisions related to these systems enforceable.

## Compliance with the Proposed Alterations Language Would Not Create Harmful Side Effects

Components of compressed air systems are not, at a building level, disruptive to replace. Replacing or modifying these components generally does not require substantial alterations to the building itself. Complying with component-level alteration and addition requirements does not ordinarily require opening walls or floors, making structural modifications, or otherwise compromise the building integrity. Therefore, we do not expect that the proposed compressed air system alterations requirements would trigger building code requirements beyond the provisions applicable to the modified or replaced component itself.

## Summary

The proposed alterations language (Sections 905.4.1 through 905.4.3) would clarify when alterations trigger compliance, and which specific provisions must be complied with. It is also firmly within the scope of permitting obligations and does not fall into a

general exception. As such, the Statewide CASE Team recommends adopting this language in order to improve clarity for users and generate significant energy savings for the State of California.

## Proposed Code Language

The proposed changes to the standards are provided below. Proposed changes to the 2025 documents are marked with dark red underlining (new language) and ~~strikethroughs~~ (deletions).

**905.4 – Additions and alterations to existing buildings compressed air systems and compressed air system components.**

All ~~additions or alterations of~~ newly installed compressed air systems ~~where the total combined horsepower (hp) of the compressor(s) is 25 hp or more~~ in existing buildings that will be nonresidential, hotel/motel, or multifamily occupancies shall comply with the applicable requirements of Section 905.1.

Alterations to compressed air systems, including alterations to components of existing compressed air systems, in existing buildings shall comply with the requirements of Sections 905.4.1 through 905.4.3, as determined by the scope of the alteration.

**905.4.1** [New section] **Alterations to air compressors.** For alterations to existing compressor systems where air compressors are added or replaced, all added or replaced compressors shall meet the requirements of Section 905.1.1, Section 905.1.2, and Section 905.1.3.

**Exception 1 to Section 905.4:** Alterations where the total combined added or replaced compressor horsepower is less than the average per-compressor horsepower of all compressors in the system do not need to comply with trim compressor and storage requirements in Section 905.1.1.

**Exception 2 to Section 905.4:** Alterations where all added or replaced compressors are variable speed drive (VSD) compressors and compressed air system includes primary storage of at least one gallon per actual cubic foot per minute (acfm) of the largest trim compressor do not need to comply with trim compressor and storage requirements in Section 905.1.1.

**Exception 3 to Section 905.4:** Alterations of existing compressed air systems that include one or more centrifugal compressors do not need to comply with trim compressor and storage requirements in Section 905.1.1.

**Exception 4 to Section 905.4.1:** Alterations that have been approved by the Energy Commission Executive Director as having demonstrated that the system serves loads for which typical air demand fluctuates less than 10 percent do not need to comply with trim compressor and storage requirements in section 905.1.1.

**Exception 5 to Section 905.4.1:** Alterations where all added or replaced compressors have less than a combined 100 hp in air compressor capacity do not need to comply

with controls requirements in section 905.1.2, monitoring requirements in section 905.1.3, or applicable portions of NA7.13.

**905.4.2** [New section] **Alterations to compressed air piping.** For alterations with added or replaced compressed air piping greater than 50 adjoining feet in length, all added or replaced piping shall meet the requirements of Section 905.1.4, Section 905.1.5, and applicable portions of NA7.13.

**905.4.3** [New section] **Alterations to compressed air dryers.** For alterations with added or replaced compressed air dryers, all newly installed compressed air dryers shall meet the requirements of 905.1.6 and applicable portions of NA7.13.3.1.