

When do the Standards Apply?

The 2022 Building Energy Efficiency Standards (Energy Code) apply to all steam traps in new industrial facilities and steam traps added to support new, nonreplacement, process equipment in existing industrial facilities where the installed steam trap operating pressure is greater than 15 psig and the total combined connected boiler input rating is greater than 5 million Btu/hr. The installed steam trap operating pressure is the steam pressure entering the steam trap during normal design operating conditions.

When the Energy Code applies, the energy requirements for steam traps can be found in Section 120.6(i) of Title 24, Part 6, and acceptance testing requirements can be found in Reference Nonresidential Appendix NA7.19. The requirements for steam traps are mandatory and cannot be traded off using the performance modeling approach. Steam traps where steam is diverted to a steam system of lower pressure for use when the steam trap fails to open is the only exception when the requirements are not required to be met.

What is Covered in a Steam trap?

The Energy Code has requirements for central steam trap fault detection and diagnostics monitoring, steam trap fault detection, steam trap strainer installation, and steam trap system acceptance testing. There is an exception for steam traps where steam is diverted to a steam system of lower pressure for use when the steam trap fails to open.

Central steam trap fault detection and diagnostics monitoring

Steam trap systems shall be equipped with a central steam trap monitoring system that:

- Provides a status update of all steam trap fault detection sensors at no greater than 8-hour and intervals.
- Automatically displays an alarm that identifies which steam trap has a fault once the system has detected a fault.

Steam trap fault detection

Steam traps shall be equipped with automatic fault detection sensors that shall communicate their operational state to the central steam trap monitoring system.

Steam trap strainer installation

Steam traps shall either:

- Be equipped with an integral strainer and blow-off valve; or
- Be installed downstream within 3 feet of a strainer and blow-off valve.

Steam trap system acceptance testing

Before an occupancy permit is granted for applicable steam trap systems, the equipment and systems shall be certified as meeting the acceptance testing requirement for code compliance, as specified by the Reference Nonresidential Appendix NA7.19. A certificate of acceptance shall be submitted to the enforcement agency that certifies that the equipment and systems meet the acceptance requirements.



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AUGUST 2023