

BI 21 - 02

March 16, 2022

Tennessee Board of Boiler Rules
Dept. of Labor and Workforce Development
Division of Workplace Regulations & Compliance
220 French Landing Drive
Nashville, TN 37243

Submitted By: Marty Toth, ECS Consulting, LLC

Subject: Low-Pressure Boiler E-Stops

Statement of Need: ECS Consulting, LLC requests the Board of Boiler Rules provide an interpretation on the requirements for manually operated remote shutdown switches (i.e. Emergency Stop, E-stop, etc.) assigned to low-pressure boilers installed & operated in the state of Tennessee.

Background: With the requirements listed in ASME[®] CSD-1 and NFPA[®] 85 that are adopted by the state of Tennessee within 0800-3-3-.02, there is some confusion in the industry as to the enforcement of the code for the installation of remote shutdown switches (i.e., Emergency Stop, E-stops, etc). ASME[®] CSD-1 and NFPA[®] 85 have requirements in Part CE-110 (b) and Chapter 4.11.7.9, respectively, as well as Part 1, Section 3.5.3.1 & 3.5.3.2 of the National Board Inspection Code (NBIC), that address the installation of such switches in the case of emergency to low-pressure boilers.

Inquiry (1): In the state of Tennessee, is it required that all locations operating a low-pressure boiler at 400,000 BTU/hr or greater and built under Section IV of the ASME Code and possessing the “H” stamp be connected to a manually operated remote shutdown switch or circuit breaker?

Reply (1): Yes

Inquiry (2): In the state of Tennessee, is it required that all locations operating a low-pressure boiler at 400,000 BTU/hr or greater and built under Section IV of the ASME Code, and possessing the “HLW” stamp for hot water supply boilers (e.g., water heater) be connected to a manually operated remote shutdown switch or circuit breaker?

Reply (2): Yes

Inquiry (3): If the reply of either Inquiry 1 or 2 is “Yes”, is it required that a manually operated remote shutdown switch be installed at each means of pedestrian egress from the low-pressure boiler location (e.g., boiler room)

Reply (3): Yes

Inquiry (4): Where a low-pressure boiler that is required to have a manually operated remote shutdown switch is located indoors in a facility and not in an equipment room (e.g., boiler room, mechanical room, etc.) is it still required to have a manually operated remote shutdown switch installed?

Reply (4): Yes; the manually operated remote shutdown switch (E-stop) shall be located within 50 ft (15 m) of the boiler(s) along the each pedestrian egress route(s) from the boiler(s).

Inquiry (5): For a fuel-burning burner on a low-pressure boiler, is it required for the manually operated remote shutdown switch to disconnect all fuel and electrical power to the boiler?

Reply (5): No; the switch need only shut off all the fuel to the boiler (i.e., burner, pilot)

Inquiry (6): In the state of Tennessee, is it required for all low-pressure boilers installed in a location (e.g., boiler room, mechanical room, facility location, etc.) to be electrically connected to a single manually operated remote shutdown switch (i.e., E-stop) installed at the point(s) of egress, where the activation of the switch shall actuate the master fuel trip relays on all boilers within the location

Reply (6): Yes. However, the owner-user, or their designee, may apply for a waiver from the Chief Boiler Inspector during the permitting process.

Inquiry (7): For a low-pressure boiler(s) manually operated remote shutdown switch where the boiler room door(s) is on the building exterior is it allowable for the switch to be located just inside the door(s) to the boiler room?

Reply (7): Yes

Inquiry (8): For a low-pressure boiler(s) manually operated remote shutdown switch where the boiler room door(s) is on the building interior, leading to a place of assembly or foot traffic, and subject to tampering, is it allowable for the switch to be located just inside the door(s) to the boiler room?

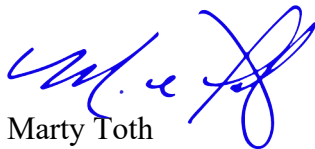
Reply (8): Yes

Inquiry (9): In the state of Tennessee, when an existing low-pressure boiler(s) installation that's required to have a manually operated remote shutdown switch is found to not, is it required that these switches be retroactively installed to the boiler(s)?

Reply (9): Yes

Thank you for your consideration.

Sincerely,



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