United States
Consumer Product Safety Commission

MEETING LOG

SUBJECT: ANSI/CSA FURNACE TECHNICAL SUBCOMMITTEE (TSC) WORKING GROUP (WG) MEETING ON December 18, 2025, RE. RFC #23

FY 25 OP PLAN ENTRY: Gas Appliances - CO Sensors

DATE OF MEETING: 12/18/2025

LOCATION OF MEETING: Virtual

CPSC STAFF FILING MEETING LOG: Ronald A. Jordan

FILING DATE: 12/18/2025

CPSC ATTENDEE(S):
Ronald Jordan, ESMC
Caroleene Paul, CPSC
Han Lim, ESMC

NON-CPSC ATTENDEE(S): Contact babak.owlam@csagroup.org for the full attendee list.

Summary of Meeting:
The furnace working group (WG) met to discuss Request for Change (RFC) #23 to ANSI Z21.47- ed. 9, Standard for Gas-fired central furnaces. RFC #23 is a proposed performance and safety provision that would require a carbon monoxide (CO) detection device (i.e., sensor) to be mounted on the ambient side of a gas furnace. As with each WG meeting, the WG chairman reiterated the rationale for the standard under development for carbon monoxide detection systems as being:

> *"Means shall be provided to shut down the furnace burner operation in the event of carbon monoxide level exceeding the upper threshold of 70 ppm for at least 10 minutes time weighted average, as measured by the carbon monoxide detection device (detection device) in the circulating air. The furnace burners shall remain shut down until the carbon monoxide level reduces below the reset threshold of 30 ppm for at least 10 minutes time weighted average, as measured by the detection device in the circulating air. During burner shutdown while there is a call for heat the air-circulating fan shall maintain airflow. If the detection device is inoperable [see action 8 for rationale] or is disabled [see action 8], the furnace burner operation shall remain shut down. If the detection device reaches the end of its specified service life, the furnace burner operation shall shutdown. Diagnostic information shall be available at the appliance." This provision does not apply to furnaces for outdoor installation only."*

The WG Chairman discussed the revisions being made to the proposed draft Section T.1.5, Test for CO detection device. These revisions were developed to address the concern, raised by CPSC staff at the

December 11, 2025 WG meeting, that it might be difficult to maintain a steady CO concentration of 70 ppm in the circular duct when the CO injection is either cut off or reduced, particularly if there is any degree of leakage from the circular duct. To address this concern, the WG inserted the verbiage "… and stays at or above" in front of the draft language "…the upper CO threshold (70 ppm)." The WG did not take any further action on this issue but will revisit it as needed.

The WG Chairman provided the following update for the Validation Project: Only one of two prospective testing agencies bid on the project. However, that bidder no longer has access to a test house (needed to complete Phase 1 of the Validation Project). That bidder counter proposed that Phase 1 be removed from the Validation Project and that the data which would have been generated through Phase 1 testing be replaced with existing data from CO dispersion studies, some of which were conducted by the National Institute of Standards and Technology (NIST). The WG Chairman instructed the bidder to write up a formal counter proposal for consideration. CPSC staff stated that the WG needs to determine whether existing data would be adequate to determine whether a CO sensor, onboard a gas furnace in the basement could detect a CO leak that occurs on the second floor of the house and how long it would take to detect the leak. Staff explained that a significant lag time could reduce the effectiveness of the sensor in protecting consumers near a second floor CO leak.

The WG Chairman has also been in contact with relevant staff at NIST to inquire whether NIST might be interested in conducting the Validation Project testing. CPSC staff suggested that the WG should consider exploring the feasibility of an outside investigator (e.g., the sole bidder) conducting the actual testing using the NIST test facilities. Both potential changes to the Validation Project would have to be reviewed and approved by AHRI since they are providing funding for Phase 2 of the Validation Project. AHRI had sought co-funding for Phase 1 from CSA, however, the WG Chairman did not have any updates on the status of that.

The WG Chairman will schedule a meeting with NIST to further discuss them conducting the Validation Project testing, the capabilities of their test facilities, the use of existing CO dispersion data for modeling.

The meeting adjourned at 11:45 am est.