

MEETING LOG
DIRECTORATE FOR ENGINEERING SCIENCES

CPSA 6 (b)(1) Cleared
No Mfrs/PrvtLabs
Products identified
Exempted by
Firms
Comments
CPSC/OFFICE OF THE SECRETARY
2000 MAR -2 P 6:3

SUBJECT: Meeting with the Technical Working Group (TWG) of the American National Standards Institute (ANSI) Z21/(Interim Canadian Standards Association) Joint Subcommittee on Standards for Gas-Fired Warm Air Heaters

LOCATION: Sheraton Airport Hotel
Cleveland, Ohio

DATE: February 23, 2000

LOG ENTRY SOURCE: Mohammed Khan *MK.*

LOG ENTRY DATE: February 29, 2000

COMMISSION ATTENDEES: Mohammed Khan (ESEE)

NON-COMMISSION ATTENDEES: See attached attendance record (2 pages)

MEETING SUMMARY:

The purpose of the meeting was to discuss revision proposals for the ANSI Z21/CSA standards for vented gas-fired warm air heaters. This summary is limited to those agenda items that were of special interest to the staff.

The proposal for new performance requirements for flexible vent pipe connections was of primary interest to the staff. This was initiated by the staff in a letter dated May 4, 2000 (see attached copy). The TWG proposed a 100-LB load performance requirement in place of the 200-LB requirement that was originally suggested. Staff indicated that the TWG's counter recommendation is acceptable however, the current recommended language should be enhanced for clarity. The TWG agreed to this suggestion and will draft new language.

The other agenda item of particular interest to the staff was the proposal for increasing blocked vent shut-off time. It has been noticed that consumers intentionally defeat the manufacturers' safety features on the appliances to remedy nuisance activations of the blocked vent shut-off devices. In order to reduce the potential for a nuisance shut-off, it has been proposed to increase the minimum time required for such safety devices to activate. Staff indicated that it is in support of the proposal however, made clear that the proposal for an extended block vent shut-off



time must not result in an allowance for significant increases in concentrations of carbon monoxide or other hazardous compounds. Furthermore, staff provided key elements for the rationale statement to make clear that the proposal's primary objective is to reduce potential bypassing of blocked vent safety controls.

Post-It® Fax Note	7671	Date	2/24/00	Page	2
To	Mohammed Khan	From	Cathy Rake		
Co./Dept.	CPSC	Co.	CSA		
Phone #		Phone #			
Fax #	301 504 0533	Fax #	216 524 4990		

**ATTENDANCE RECORD
VENTED HEATERS TECHNICAL WORKING**

WEDNESDAY, FEBRUARY 23, 2000

NAME (Please Print)	GUESTS	MARK "X"	COMPANY	PHONE NO.	FAX NO.	INTERNET ADDRESS
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U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

May 4, 1999

Ms. Cathy Rake
Project Manager
International Approval Services
8501 East Pleasant Valley Road
Cleveland, Ohio 44131

Subject: Standards Revision Proposal for Vented Gas Fireplaces, ANSI
Z21.50/CSA 2.22, Vented Gas-Fired Space Heating Appliances, ANSI
Z21.86/CSA 2.32, and Vented Gas Fireplace Heaters, ANSI Z21.88/CSA
2.33.

Dear Ms. Rake:

The U.S. Consumer Product Safety Commission (CPSC), in cooperation with a gas fireplace manufacturer, recently recalled more than 22,000 gas fireplaces that used flexible vent pipes. The recall was in response to fire hazards created by unstable connections of the flexible vent pipes. The CPSC staff believes that the pertinent ANSI Standards should be amended to include a performance test to measure the integrity of vent systems incorporating flexible vent pipe.

In 1997, at least 1.5 million U.S. households had vented gas fireplaces. Data show that the sales of vented gas hearth products (fireplaces, logs, and inserts) have increased substantially in recent years and sales now exceed 500,000 units annually. The staff believes that many manufacturers and installers use or will use flexible vent pipe to install these products because of its ease of installation and cost.

The principal components of the recalled fireplace's vent system were a flexible metal vent pipe and metal termination assembly. The termination assembly consists of a flanged opening to accept the flexible vent pipe. The assembly mounts to an external wall to complete the venting system. Fire investigation reports involving the recalled units indicated that the points of fire origin corresponded to the location of the vent pipe termination assembly connection. It is important to note that even partial separations of the vent pipes resulted in fires. The CPSC staff observed the separation of the flexible vent pipe from the termination assembly in laboratory testing.

The gas fireplace recall illustrates that improper design and/or fastening of flexible vent pipe can result in a fire hazard. To minimize the risk of fires and injuries associated

with gas fireplaces and other appliances, which may use flexible vent pipe, provisions to ensure proper design and fastening of flexible vent pipe connections should be adopted.

The CPS-C engineering staff recommends the following language as new text for the, "Part I. Construction", portions of ANSI Z21.50/CSA 2.2, Vented Gas Fireplaces, ANSI Z21.86/CSA 2.32, Vented Gas-Fired Space Heating Appliances, and ANSI Z21.88/CSA 2.33, Vented Gas Fireplace Heaters:

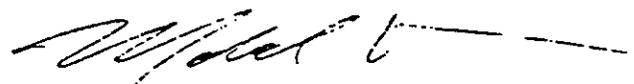
"Manufacturers' supplied flexible vent pipe and fastener(s) or specified flexible vent pipe and fastener(s) and/or fastening technique(s) for flexible vent pipe connections shall not fail or result in loosening of a connection when installed per the manufacturer's instruction, and when a tensile load of 200 lbs is concentrically applied to the flexible vent pipe at the connection. This requirement shall be met under thermal conditions that match ambient, frigid, and full-load equilibrium temperatures."

The staff believes that the prescribed load test is imperative because of the recent field incidents, which led to the recall, and the probability for future incidents as suggested by the market trend. The staff believes that the prescribed load test can provide assurance for stable fastening of flexible vent pipe, irrespective of the manufacturers' fastening techniques or the final installation configuration. The 200 lb requirement reflects a factor of safety of "2" based on laboratory tests conducted by the staff. Furthermore, this recommendation is consistent with the mechanical integrity requirements for furnace vent systems, currently pending approval, in the ANSI Z21.47/CSA 2.3 Standard for Gas-Fired Central Furnaces.

Thank you for your consideration of this proposal. Should you have any questions or concerns, please contact Mr. Mohammed Khan with the Directorate for Engineering Sciences on (301) 504-0508, x1302.

The views expressed in this letter are those of the engineering staff and may not represent the official position of the Commission.

Very Truly Yours,



Mohammed Khan,
Mechanical Engineer
Directorate for Engineering
Sciences