

MEETING LOG
DIRECTORATE FOR ENGINEERING SCIENCES

OFFICE OF THE SECRETARY
DEPARTMENT OF INFORMATION

SUBJECT: Meeting with the ANSI Z21/83 AD HOC Working Group on Flame
Rollout Safety Shutoff Systems

LOCATION: Doubletree Guests Suites
2305 Hotel Plaza Blvd.
Lake Buena Vista, Florida
(407) 934-1000

DATE: December 6, 2000

LOG ENTRY SOURCE: Mohammed Khan *MK*

LOG ENTRY DATE: December 11, 2000

COMMISSION ATTENDEES: Mohammed Khan (ESEE)

NON-COMMISSION ATTENDEES: See attached attendance record

MEETING SUMMARY:

The purpose of the meeting was to continue discussions concerning the appropriateness of the current standards coverage for flame rollout protection means (FRPM) for gas appliances that are equipped with automatic ignition systems. This meeting log provides a summary of the key discussion points that were of special interest to the staff.

The consensus among the members of the ad hoc working group (AHWG) was to withdraw its previous decision to revise the standard to eliminate bypassing automatic ignition controls during FRPM certification tests. It was also decided to abandon a proposal, which was written by the AHWG chair, for a revised test protocol that disallowed bypassing and specified requirements for cycling conditions. The members of the AHWG emphasized that the purpose of an FRPM is to safeguard against fire hazards that may result from blocked heat exchanger conditions – not to prevent CO exposure. The chair of the AHWG reported that during the subcommittee meeting (5 December) it was pointed out that hundreds of thousands of boilers have been in use and the Ontario incident (where consumers died from CO exposure) is the only known incident. It was also reported that testing of the Ontario incident boiler revealed that the unit's FRPM failed because of a malfunction, not because of ignition cycling. For these reasons, the members of the AHWG concluded that bypassing

CPSA 6 (b)(4) Cleared

No Mfrs/Prvtlblrs or
Products Identified

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controls does not make the current test procedure inadequate. The chair of the AHWG also reported that the boiler subcommittee however, formed a working group to look into potential carbon monoxide (CO) hazards relevant to blocked heat exchangers and include FRPM in its study.

Although the AHWG now opposes recommending changes to preclude bypassing, it will recommend that the "Method of Test" section of the pertinent standard be revised to require manufacturers specify which controls are integral to the appliance's FRPM. The recommended coverage is as follows:

"Controls which actuate due to the method of simulation selected, but which ~~would not~~ are not intended to provide protection against heat exchanger blockage as specified by the manufacturer, shall be by passed."

This revision does not prohibit bypassing of the controls but places the onus on the manufacturer to identify the controls that have a functional role in its FRPM.

Staff emphasized that this revised certification procedure still does not reflect real-world conditions and therefore, may not capture a scenario where an appliance's FRPM may potentially fail to activate due to automatic ignition cycling. The AHWG rebutted again by citing that the number of known "incidents" compared to the number of appliances is infinitesimal and there is not adverse feedback from the field.

Staff inquired about the results of the tests that were conducted by a few manufacturers to investigate the effect of cycling without bypassing during the FRPM certification test. (These tests were also done to explore possible changes to the standard to reflect an equivalent "cumulative operation time" of a cycling burner.) The chair indicated that he believed that in only one test was cycling observed but it did not continue for more than 10 minutes and therefore believed that the test results also demonstrate that the current is not inadequate. Staff requested summaries of all test procedures and results.

Attendance

Flame Rollout Safety Shutoff Ad Hoc Wkg Grp.

<u>Name</u>	<u>Company</u>	<u>Guest</u>	<u>X</u>	<u>Phone</u>
Dave Delaguila	Honeywell			763-954-5532
GARY BIAOIS	BEETLESS HEATER CO	X		610 367-2153
LARRY J ASHCOM	RAYPAK	X		805-278-5300
Sham Kassab	WaterPik Technologies			805-529-2000 x 329
JOHN GORMAN	CSA			216-524-4990
PAUL BEACH	WHITE-RODGERS	X		440-835-1300
NEIL ROLPH	WEIL-MCLAIN			219-879-6561
Frank Myun	PVI Industries LLC	X		817-335-3419 (210)
Paul Sohler	Crown Boiler Co	X		215-535-8900
BILL DUFF	ALLIED ENGINEERING CO	X		604-929-1219
David C. Bixby	GAMA			(703) 525-9565
Robert Glass	Lochinvar	X		(615) 889-8900
Raphael Sumbet	TSSA	M		(416) 325-1671
JOHN OVERALL	union GAS			(416) 496 5281
John P. Chicoine	Mestek Inc.	X		(413) 564-5872
Harold Green	Hest-fob, Inc	R		413 863 2242
Mohammed Khan	US CPSC	X		(301) 504-0508 x1302

MOHAMMED KHAN

