CPSC MEETING LOG
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Meeting Log for the Joint Meeting of the CSA Technical Committee on Performance & Installation of Gas Burning Appliances & Related Accessories and the Z21/83 Technical Committee on Standards for Gas-Fired Appliances and Related Accessories

LOCATION: WebEx Conference Call

DATE: December 3, 2020

TIME: 9:00 am

LOG ENTRY SOURCE: Ronald A. Jordan

ENTRY DATE: January 26, 2021

COMMISSION ATTENDEES:

Ronald Jordan	ESMC

NON-COMMISSION ATTENDEES:

Greg Fabbruzzo	Enbridge Gas
Andrew Gould	Reliance Home Comfort
Doug Hird	SaskPower
Peter Baker	Maxitrol
Zenon Fraczkowski	TSSA
Peter Osborne	Enercare
Patricia Kirchner	A.O. Smith Enterprises Ltd.
Philippe Verhas	Dettson Industries, Inc.
Claude Valliere	Albert Municipal Affairs Safety Services
Charles Côté	CMMTQ
Michael Callen	GHP Group Inc.
Larry Gill	IPEX Management Inc.
Joe Boros	Rheem Sales Co Inc.
Matthew Wilber	Engineering Systems, Inc. (ESi)
Andrea Papageorge	Southern Co.
Johnathan Brania	UL
JoAnn Emmel	Virginia Tech
Craig Grider	Intertek
Diane Jakobs	Rheem
Gary Potter	Heater Technologies
Gene McPherson	McPherson Propane
Frank Myers	Myers Group
Jim Ranfone	AGA
Issac Sargunam	retired manufacturing representative

Amy Beth Sherwin	St. Louis Community College
Dan Snyder	AO Smith
Carl Suchovsky	Appliance Engineering
Bruce Swiecicki	NPGA
Ryan Jensen	Emerson
Eric Adair	Hearth, Patio & Barbecue Association
Tim Manz	State of Minnesota Construction Codes and Licensing Division
Renee Lani	American Public Gas Association
Matt Williams	AHAM
Charlie Sourada	North American Association of Food Equipment
Paul Glanville	Gas Technology Institute
John Park	AHAM
Jeff Kleiss	Lochinvar, LLC
Mark Skierkiewicz	UL
Tae Kwon	AHRI
Shannon Corcoran	AHRI
Josip Novkovic	CSA Group
Jennifer Hess	CSA Group
Nikki Kidd	CSA Group
John Skinner	CSA Group
Trevor Perera	CSA Group
Dan Yurman	CSA Group
Dragica Jeremic Nikolic	CSA Group
Beth George	CSA Group
Brian Hayden	CSA Group
Ryan Beard	CSA Group
David Delaquila	Aquila Consulting, LLC.
Jacob Waxman	AHRI
James York	Rinnai
Phillip Stephens	Weil-Mclain
Jason Hall	RHEEM
Chad Johnson	A.O. Smith
Panos Fykas	no affiliation listed
Joe Wallace	no affiliation listed
Rupal Choksi	AHRI
Xudog Wang	AHRI
Ted Williams	AGA
Lief Ericksen	Appliance Engineering
Larry Kidd	RHEEM

MEETING SUMMARY:

The Joint Meeting of the CSA Technical Committee on Performance & Installation of Gas Burning Appliances & Related Accessories and the Z21/83 Technical Committee ("TC") on Standards for Gas-Fired Appliances and Related Accessories met to address the following agenda items:

Item A.8. Terms of Reference/Committee Matrix

The Committee was informed that the Z21/83 Technical Committee's (TC) Terms of Reference include Regulatory/Code Authority (R/C A) and Government Agency, definitions follow, as member categories. CSA Group staff requested that two member categories, Regulatory/Code Authority (R/C A) and Government Agency, be merged since they had difficulty finding members to fill each category and that compromises the matrix balance. Currently there are no members in the R/C A category which was originally created for members from ICC that are no longer on the TC. CPSC staff expressed the following concerns about merging the Regulatory/Code Authority and Government Agency matrix categories:

1. Might reduce the potential to add future voices and perspectives from those categories.
2. Might negatively impact the ability to maintain proper balance across all categories on the TCs.
3. Reduces the total membership of the Regulatory/Code Authority and Government Agency matrix categories. CPSC staff's understanding is that both member category separately had a maximum number of 8 slots each, but the plan to merge them does not double that maximum number of slots to 16, but instead reduces the combined total to only 8 slots. Staff expressed concern that was a significant reduction in potential voting for these two categories when compared to the representation of the manufacturing category.
4. CPSC staff also expressed the concern that once reduced through merger, could these two categories be expanded, if interests in those areas increased and if so, how timely could that expansion be done?

The TC informed CPSC staff that if there is a future increase in interest from these categories, the Committee can always re-evaluate the categories and separate them. The Committee passed a motion to merge the regulatory/code authority category with the government agency category in the Z21/83 Technical Committee Terms of Reference and request the approval of the Strategic Steering Committee.

Item A.10a. Hydrogen blending research project

This presentation discussed research being conducted by Appliance Engineering, Inc. (AEI) to evaluate domestic gas appliance performance and household piping leaks when operated on hydrogen-enriched gas supplies. Four types gas appliances were tested: space heaters; furnaces; water heaters; and boilers. Four different piping materials were tested: corrugated stainless-steel tubing, press connect copper, flare connect copper, and black iron. The addition of hydrogen (H2) to natural gas supplies is being considered as a means to mitigate greenhouse gas emissions created during the combustion process. This process is referred to as Hydrogen Enrichment. Hydrogen concentrations of up to 15% have been proposed.

Hydrogen blending can also lead to an increase in flue loss from the appliance which is equivalent to a decrease in appliance energy efficiency. When the input rate is lowered, the flue temperature is also lowered. When the work is completed, CSA will make the report of the results publicly available.

Item A.10b. Request for research project addressing floor temp issue.

This presentation discussed a 2019 proposal for a project to research the scientific justification for the current allowable temperature rise for combustible surfaces required in the various gas appliance standards. The presenter stated that for 80+ years most gas appliance standards have had an allowable temperature rise on combustible surfaces of 90ºF and in some cases 117ºFOver the years, Z21 and Z83 technical subcommittees have proposed increasing the allowable temperature rise from 90ºF to 117ºF; however, no scientific justification for either the 90F or the 117F allowable temperatures have been identified. The Technical Committee acknowledged the need for and supports this research project and suggested a working group be created to revise the original proposal, identify potential co-funding and submit to CSA for consideration. CSA staff will post the proposal and additional materials on Communities.

Item A.13c. Altitude Limitation Discussion. There is growing concerns that blocked vent shutoff systems (BVSS) that work well at sea level, but don't work well at elevations in excess of 2000 feet above sea level. Flame roll out switches and other temperature switches may not work as well at elevations above 2000 feet either. Heat exchanger temperatures are lower due to reduced inputs at high elevations. The performance of these devices is due to a lower mass of oxygen at high altitudes. Therefore, products tested at elevations above 2000 feet will not perform as well at sea level. This issue is discussed in the document "Issues of Certification Testing at Elevations above 2000 Feet." A letter ballot will be issued proposing the all affected standards be revised to state *"Testing shall be conducted at altitudes or elevations below 2000 feet (600 meters)."*

Item A.15c. Appliance regulators and effects of appliance functionality under exposure to excessive pressure

There is a concern that the line pressure regulator can allow 2 psi or more to the appliance, but the appliance regulator in the gas valve is only tested to ¾ psi. A working group was formed to investigate this issue.

The meeting adjourned at 4:50 pm.