

**CPSC MEETING LOG
DIRECTORATE FOR ENGINEERING SCIENCES**

SUBJECT: Meeting Log for the Z21/CSA Joint Technical Subcommittee on Standards for Gas-Fired Low-Pressure Steam and Hot Water Boilers

LOCATION: WebEx Conference Call

DATE: December 14-15, 2020

TIME: 2:00 pm - 4:00 pm, December 14, 2020
10:00 am - 12:00 pm, December 15, 2020
2:00 pm - 4:00 pm, December 15, 2020

LOG ENTRY SOURCE: Ronald A. Jordan

ENTRY DATE: January 26, 2021

COMMISSION ATTENDEES:

Ronald Jordan ESMC

NON-COMMISSION ATTENDEES:

Ryan	Beard	CSA Group
Kevin	Carlisle	Karl Dungs Inc
David	Delaquila	Aquila Consulting, LLC
John	Derksen	Enercare Home and Commercial Services
Chris	Ellingwood	Patterson-Kelley
Larry	Gill	IPEX Management Inc
Andy	Gould	Reliance Comfort LP
Craig	Grider	Intertek
Travis	Hardin	Underwriters Laboratories Inc.
Ryan	Jensen	Emerson Climate Technologies
Larry	Kidd	Rheem
Jeff	Kleiss	Lochinvar, LLC
Tae	Kwon	Air-Conditioning, Heating, and Refrigeration Institute
Ramiro	Mata	American Society of Plumbing Engineers
Tim	McNulty	U.S. Draft Co.
Frank	Myers	The Myers Group, LLC
Rupesh	Savadekar	Beckett Gas Inc.
Paul	Sohler	Crown Boiler Company
Carl	Suchovsky	Appliance Engineering, Inc.
Cory	Weiss	Field Controls LLC
James	York	Rinnai America Corporation
Dan	Bereiter	Resideo

Joseph	Boros	Rheem
Robert	Choi	KD Navien America, Inc.
Gary	Hainley	PB Heat, LLC
Chad	Johnson	A.O. Smith Corporation
Mairy	Sanz	Enbridge
Mike	Travers	Reliance Comfort LP
Patrick	Villaume	Patterson Kelley
Peter	Baker	Maxitrol Company
John	Schlachter	Maxitrol Company
Matthew	Wilber	ESi (Engineering Systems, Inc.)
Brian	Haydon	CSA Group
Dragica	Jeremic Nikolic	CSA Group

MEETING SUMMARY:

The Z21/CSA Joint Technical Subcommittee on Standards for Gas-Fired Low-Pressure Steam and Hot Water Boilers met over two days, for four separate sessions to discuss changes to the standards. Of particular interest to ESMC staff were the following Requests for change (RFCs):

RFC#5 Z21.13-7ed, Altitude

This RFC proposed that Section 5.1.2 of the standard be revised to require that boilers be tested an elevation of 2,000 feet or below with gas type(s) specified by the manufacturer.

Without the proposed requirement there is a risk of testing being conducted at elevations greater than 2000 feet on gas appliances which are then installed at elevations that range down to sea level. The concern is that appliance performance cannot be predicted when it is tested at high altitudes with less mass of oxygen per unit volume, combustible gas per unit volume, and reduced air density when compared to installations at altitudes less than 2000 feet. If general testing occurs at a High Altitude, then all tests on combustions are in question and there is potential for unstable burners, higher CO production, flame impingement, etc. Also, due to the change in air density, the safety devices of heating appliances controlling supply air temperatures can be affected when the same product is installed at a lower altitude. This RFC was deferred until the next Boiler TSC meeting.

RFC#6 Z21.13-7ed, Input rate calculation

This RFC proposed adding input rate calculations to the standard to provide clarification. This RFC was withdrawn.

RFC#11 Z21.13-7ed, Flame rollout safety shutoff

This RCF proposed revising Sections 4.1.6 and 5.10 of the standard to include the following language: “without a sealed combustion chamber that prevents flame rollout and”. The rationale for these changes is that:

- A flame roll-out switch is not necessary when a sealed combustion chamber prevents flames from rolling out by its mechanical configuration.

- There is no need for the separate test procedure for atmospheric draft boilers and for boilers with blowers.
 - All products can be tested by progressively blocking the outlet.
- The proposed change will make the application of this test more consistent and better simulate the most likely dangers encountered in the field.

The TSC voted to accept this RCF.

RFC#14 Z21.13-7ed, COeq clarification

This RFC proposed clarifying the CO equivalent description by adding the calculation for CO equivalent. The rationale for adding the calculation was that the calculation was not included in previous versions of the standard. The TSC voted to accept this RCF.

RFC#16 Z21.13-7ed, Limiting devices

This RFC will be resubmitted at a later date

The final session of the two-day meeting adjourned at approximately 4:00 pm. The remaining RFCs (approximately 32 out of 45) and other agenda items will be addressed at TSC meetings scheduled for February 18, 2021 and March 23, 2021.