**LOG OF MEETING**
**DIRECTORATE FOR ENGINEERING SCIENCES**

CPSA 6 (b)(1) Cleared
No Mfrs/Prvtlblsr
Products Identified
Exemption Granted
Firms Notified.
Comments Processed.

SUBJECT: Outdoor Specialty Gas Cooking Appliance Technical Advisory Group (TAG) Meeting.

DATE OF MEETING: September 24 and 25, 2002

PLACE OF MEETING: Toronto Airport Hilton, Toronto, ON.

LOG ENTRY SOURCE: Hammad A. Malik

COMMISSION ATTENDEES: Hammad A. Malik

NON-COMMISSION ATTENDEES:

| | |
|---|---|
| Ronald E. Mell | R.E.Mell & Associates |
| Ken Sharer | CFM Keanall |
| Jeffre A. Borton | Sherwood |
| Don McLemore | Masterbuilt Manufacturing Inc. |
| Shawn Minshall | Fiesta Gas Grills |
| Christopher V. Childers | Weber-Stephen Products Company |
| Ed Ferguson | Ameri-Gas |
| William Ferlin | Mueller Industries |
| Alex Gafford | Char-Broil |
| Steven T. Gentry | Worthington Cylinder Corporation |
| Sam Hatfield | Sunbeam Outdoor Products |
| Paul Heald | Marshall Gas Controls |
| Donald C. Hudson | Onward Multi-Corp. Inc. |
| James Jollay | Char-Broil |
| Joshy P. Kallungal | Ontario Ministry of the Sol. General |
| Ray Mohan | CFM Keanall |
| Peggy Smyth | Consumer Rep. |
| David Slone | Blue Rhino Corporation |
| Ted E.Squires | The Squires Company |
| Senka Krsikapa | CSA |
| Rodney Barbour | Bayou Classic |
| Jake Halder | Morrone |
| William Baynes | Baynes & Assoc. |
| Norman Bourgeois | Metal Fusion, Inc. |
| Ron DeMoss | Marshall Brass |
| Timothy Edwards | Metal Fusion, Inc. |
| Rob Butcher | Eastman Outdoors |
| Mike Stone | Eastman Outdoors |
| Keith Thiessen | Extreme Mfg.Ltd. |

| | |
|---|---|
| Christine Parish | The Brinkmann Corporation |
| Nancy Carnahan | The Brinkmann Corporation |
| J.M. Culpepper | STB Resources |
| Jack Goldman | Home Patio & Barbecue Association (HPBA) |
| Daryl Hosler | ANSI Z21/83 Committee |
| Daniel Restelli | Underwriters Laboratories |
| Carl C. Radcliffe | Underwriters Laboratories |
| John McLemore | Masterbuilt Manufacturing Inc. |
| Susan McCarthy | CSA International, Cleveland |
| Rick Fort | CSA International, Cleveland |
| Raymond Thurton | CSA International, Toronto |
| Nino Mancini | CSA International, Toronto |
| Glenn Tubrett | CSA |

SUMMARY OF MEETING:

Ron Mel brought the meeting to order and then requested all attendees to introduce themselves. All attendees introduced themselves.

The agenda for this meeting and the minutes of the February 2002 meeting were approved.

See meeting agenda enclosed as Attachment 1.

Items 4 and 5 on agenda were provided for information only. Enclosed as Attachments 2 and 3. No action by the TAG was necessary.

Item 6 on agenda was voted to be forwarded as an editorial change to the ANSI Z21.83 meeting in April of 2003. Enclosed as Attachment 4.

Item 7 on agenda was voted to be forwarded to the ANSI Z21.83 meeting in April of 2003. Enclosed as Attachment 5.

Item 8 on agenda was voted to be forwarded as an editorial change to the ANSI Z21.83 meeting in April 2003. Enclosed as Attachment 6.

Item 9 on agenda was voted to be sent out for public review and comment provided submitter includes rationale. Enclosed as Attachment 7.

Item 10 on agenda resulted in the reconvening of task force to specifically address issues relating to Turkey Fryers/Boilers. Enclosed as Attachment 8.

Item 11 on agenda was rejected. Enclosed as Attachment 9.

Item 12 on agenda was voted to be sent for public review and comment. Enclosed as Attachment 10.

Item 13 on agenda was voted to be sent for public review and comment. Enclosed as Attachment 11.

Item 14 on agenda resulted in the decision to send a letter explaining reason for exclusion. Enclosed as Attachment 12.

Item 15 on agenda resulted in the formation of a Task Force to address RV mounting requirements for specialty gas cooking appliances. Enclosed as Attachment 13.

Item 16 on agenda was withdrawn by the submitter. Enclosed as Attachment 14.

Item 17 on agenda resulted in a vote to reaffirm. Enclosed as Attachment 15.

Item 18 on agenda was to address previously identified outstanding items. Enclosed as Attachment 16.

Outstanding Item 2d had already been addressed by the ANSI Z21.83 committee.

Outstanding items 2e, 3, and 9 were voted to be sent for public review and comment.

Outstanding item 6 was voted to be sent for public review and comment.

Outstanding item 7 had already been addressed.

Outstanding item 8 was voted to be sent to ANSI Z21.83 committee as editorial.

Outstanding item 11 was voted to be sent to ANSI Z21.83 committee as editorial.

Outstanding item 12 was voted to be sent to ANSI Z21. 83 committee as editorial.

Outstanding item 13 was dropped.

Sue McCarthy identified several areas where the various standards under the jurisdiction of the TAG had conflicting requirements. The TAG voted to send proposals to eliminate these conflicts out for public review and comment.

Item 19 was added to agenda as a new item. This item was voted to be forwarded to the Turkey Fryer Task Force for consideration. Enclosed as Attachment 17.

Item 20 was added to agenda as a new item. This item was withdrawn by the commenter. Enclosed as Attachment 18.

Item 21 was added to the agenda as a new item. This item was voted to be sent out for review and comment. Enclosed as Attachment 19.

Item 22 was added to the agenda as a new item. This item was voted to be sent for review and comment provided a rationale be added. Enclosed as Attachment 20.

The committee voted to have the Turkey Fryer Task Force meet on November 5th and 6th of this year at the CSA offices in Cleveland, OH.

# Attachment 1

August 27, 2002

TO: MEMBERS OF CSA/Z21 JOINT TECHNICAL ADVISORY GROUP (TAG) ON OUTDOOR COOKING AND ILLUMINATING APPLIANCES:

Supplementing my letter of July 24, 2002 enclosed is the material (Items 3 through 18), plus a Program, for consideration at your September 24-25, 2002 meeting.

Very truly yours,

SENKA VUKAS KRSIKAPA, P. ENG.
Project Manager
Canadian Standards Association
Tel: 416 747-2508
Fax: 416 401-6924
*e-mail: senka.krsikapa@csa.ca*

Enc.

c.c: Daryl Hosler
John Paisley
Frank A. Stanonik
Bruce J. Swiecicki
Robert Stack

*Dated: August 27, 2002*

PROGRAM
for the September 24-25, 2002 Meeting of

**CSA/Z21 JOINT SUBCOMMITTEE ON STANDARDS FOR OUTDOOR COOKING AND ILLUMINATING APPLIANCES:**

DURING CONSIDERATION OF THIS AGENDA, THE ADOPTION OF STANDARDS PROPOSALS WHICH ADD, MODIFY OR DELETE PERFORMANCE PROVISIONS MUST ALSO INCLUDE CONSIDERATION OF THE NEED FOR CORRELATING COVERAGE IN "PART III, MANUFACTURING AND PRODUCTION TESTS."

1. CALL TO ORDER/HOUSEKEEPING/SAFETY
2. APPROVAL OF THE AGENDA
3. APPROVAL OF MINUTES OF FEBRUARY 2002 MEETING
4. REVISIONS TO THE Z21/83 GUIDELINES FOR FORMAL PRESENTATIONS TO SUBCOMMITTEES/ TAGS
5. ~~SUMMARY FROM THE APRIL 18, 2002 Z21/83-CSA TECHNICAL COMMITTEE~~ MEETING
6. REVIEW OF COMMENTS RECEIVED ON PROPOSED REVISIONS TO THE HARMONIZED STANDARD ON CYLINDER CONNECTION DEVICES, ANSI Z21.81/CSA 6.25 DISTRIBUTED FOR PUBLIC R&C IN MAY 2002.
7. REVIEW OF COMMENTS RECEIVED ON PROPOSED REVISIONS TO THE HARMONIZED STANDARD ON OUTDOOR COOKING GAS APPLIANCES, ANSI Z21.58/CGA 1.6 DISTRIBUTED FOR PUBLIC R&C IN MAY 2002.
8. REVIEW OF COMMENTS RECEIVED ON PROPOSED REVISIONS TO THE HARMONIZED STANDARD ON OUTDOOR COOKING SPECIALTY GAS APPLIANCES, ANSI Z21.89/CSA 1.18 DISTRIBUTED FOR PUBLIC R&C IN MAY 2002.
9. PROPOSED REVISIONS TO THE HARMONIZED STANDARD ON SPECIALTY COOKING APPLIANCES ANSI Z21.89/CSA 1.18, SUBMITTED BY MR. JOLLAY
10. PROPOSED REVISIONS TO THE HARMONIZED STANDARD ON SPECIALTY COOKING APPLIANCES, ANSI Z21.89/CSA 1.18, SUBMITTED BY EQA
11. A LETTER FROM UL REGARDING ADOPTED STANDARDS COVERAGE FOR TURKEY FRYERS
12. PROPOSED REVISIONS TO ANSI Z21.58/CSA 1.6, SUBMITTED BY MR. JOLLAY
13. REVIEW OF A PROPOSAL/REPORT FROM THE TASK FORCE ON INCANDESCENT PARTICLES

14. REVIEW OF UL'S REQUEST FOR THE RATIONALE FOR EXCLUSION OF RV APPLICATIONS FROM HARMONIZED OUTDOOR COOKING STANDARDS

15. REVIEW OF A PROPOSAL TO DEVELOP STANDARDS COVERAGE FOR RV GRILLS

16. REVIEW PROPOSED REVISIONS TO SECTION 2.21 HANDLE TEMPERATURES OF ANSI Z21.89/CSA 1.18 STANDARD FOR SPECIALTY COOKING APPLIANCES

17. REAFFIRMATION OF THE HARMONIZED STANDARD ON CYLINDER CONNECTION DEVICES, ANSI Z21.81-1997/CGA 6.25-M97.

18. FOLLOW-UP ON ACTION ITEMS FROM ITEM 13 OF THE FEBRUARY 2002 MEETING

OTHER BUSINESS

# Attachment 2

ITEM 4
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**REVISIONS TO THE Z21/83 GUIDELINES FOR FORMAL PRESENTATIONS TO SUBCOMMITTEES/ TAGS**

Action Requested

None. For information only.

Background

The *Guidelines for Formal Presentations to Subcommittees* were developed by the former Chairman of the Z21 Committee and the Z21 Chairman's Advisory Committee, in 1993-1994. The guidelines are intended to provide subcommittee chairmen guidance on how to handle requests for presentations at subcommittee meetings, the use of recording devices at meetings and openness of meetings.

The Z83 and Z21 Committee unanimously approved the guidelines at their respective October 1994 and April 1995 meetings.

At its April 18, 2002 meeting, the Z21/83 Committee and the CSA TC approved the attached revisions to the guidelines. The guidelines will also be updated to reflect the changes as described under agenda Item 3. You are being asked to review the revised guidelines for information.

Attachment 1 to ITEM 4
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

# GUIDELINES FOR FORMAL PRESENTATIONS TO SUBCOMMITTEES

ACCREDITED STANDARDS COMMITTEE Z21/83

1. As a general rule, only members of joint subcommittees may make formal presentations at subcommittee meetings. Formal presentations are defined as presentations developed prior to a particular meeting for the express purpose of conveying information of direct and material relevance to the normal scope of the subcommittee, and preferably to the prescribed agenda for a particular meeting. They shall be limited in time, as deemed appropriate by the responsible subcommittee chair.

2. For subcommittee members, permission to make formal presentations should be obtained from the Administrative Secretary and/or the subcommittee chair prior to a particular meeting, preferably in writing, and before the initial agenda is circulated to the subcommittee members, but in any event, at least two weeks (14 calendar days) before the meeting.

The request for, and the granting of permission for a formal presentation can be done verbally or through the appropriate secretariat staff liaison, with the subcommittee chair's approval. The chair should make the facts concerning the request a matter of record at the time of the meeting and direct the secretariat staff to record those facts in the minutes of the meeting.

3. When non-subcommittee members request permission to make a formal presentation at a subcommittee meeting, such persons should be notified by the secretariat staff that they must make a written request to the Administrative Secretary at least thirty (30) calendar days before the particular subcommittee meeting where they wish to make their presentation.

The request should explain who they are or represent, the purpose of the request, the nature of the proposed presentation, and the time they would require to make the presentation (apart from any question and answer period which may be expected to follow). The requestor should explain how and why the proposed presentation would be constructively advance the work of the subcommittee.

Whether or not permission to make a formal presentation by a non-subcommittee member is granted by the Administrative Secretary and/or subcommittee chair, the requestor shall be notified in writing of the fact no later than the expiration of the thirty (30) day period by the Administrative Secretary.

The Administrative Secretary shall provide any relevant instructions or explanation and copy the subcommittee chair and chair of the appropriate parent committee. In addition, whether or not the request for a formal presentation by a non-subcommittee member is granted, the written expression of same, together with the written granting or refusal of the request, shall be incorporated in the minutes of the particular meeting at which the requestor desires to make a presentation.

4. The subcommittee chair has the sole responsibility and authority to control the manner in which a formal presentation is made. It is at his or her discretion to provide for a question and answer period following the presentation, as well as determining the appropriate time for termination of the presentation and discussion. The secretariat staff should record the essence of the presentation and discussion, but need not record the entire proceedings. NOTE: When a formal presentation is made, verbatim transcriptions made by tape recorders, stenotype machines, video camera, or other means, shall not be permitted unless authorized by the chairman.

## ADDITIONAL INFORMATION

Since meetings of joint subcommittees are open to the public, persons other than members of the subcommittee, e.g., members of the respective parent committee, invited guests, and others having direct and material interest in the subjects which the subcommittee intends to discuss at a stated meeting, are welcome to attend and audit the proceedings. They are also welcome to ask questions and make comments during the meeting, but only after being recognized by the subcommittee chair.

Such questions or comments raised during the course of discussion at a subcommittee meeting shall not be deemed "Formal" presentations as defined in item 1. Questions and comments shall be limited to remarks intended to add to the knowledge of the subcommittee members concerning the subjects under discussion, including any opinions which the person speaking may care to offer. NOTE: When questions and comments are made, verbatim transcriptions made by tape recorders, stenotype machines, video camera, or other means, shall not be permitted unless authorized by the chairman.

# Attachment 3

# Attachment 4

*File J101.17-33*

# COMPILATION OF COMMENTS RECEIVED ON PROPOSED REVISIONS TO THE HARMONIZED AMERICAN NATIONAL STANDARD/ CANADIAN STANDARDS ASSOCIATION STANDARD FOR CYLIDER CONNECTION DEVICES, ANSI Z21.81/CSA 6.25

*****

## CORRESPONDENCE HAS BEEN RECEIVED FROM THE FOLLOWING INDIVIDUALS ENDORSING THE PROPOSED REVISIONS

Blake Alberts, SaskPower
Bruce Geren, General Services Administration
C Beck, PG&E
Carey LaRose, Alberta Municipal Affairs
Dan Christenson, Gordon Pratt Products
Daniel Canclini, Rheem Manufacturing
David Dougherty
Dough Perry, Maxon
Ed Grzesik, Ontario Ministry of Environment and Energy
Ed Hurd, BC Gas Safety Program
Edward Angelone, Key Span Energy
Eugene Marotta, Human Resources Development Canada
Jack Rea, Oklahoma Natural Gas
James Klein, Kodar
Jeff Kinler, Henny Penny Corp.
Jeff McCulloch, The Holland Company Inc.
Jerome Hendrickson, IAMPO
John Adams, Honeywell
John Battlas, SBCCI
John Marshall, Enbridge Consumers Gas
John Overall, Union Gas
Kai Wang, City of Industry, Ca
Martin Binet, Gaz Metropolitain
Martin Petchul, Pladmont Natural Gas Company
Neil Rolph, Weil-McLain
Peggy Smyth, Consumer Representative
Robert Hauserman, Ct Natural Gas
Ron McRae, GNWT
Ron Mell, Marshall Brass Division, S.H. Leggitt Company
Ronnie Ray Frazier, TXU Electric &Gas
Walter G. Leight, NIST

*****

**CORRESPONDENCE HAS BEEN RECEIVED FROM THE FOLLOWING INDIVIDUALS INDICATING SPECIFIC COMMENTS TO THE PROPOSED REVISIONS**

**Section 1.2.1**

Comment #1

*Celia Gibbs* *Consumers' Association of Canada*

1.2.1c2a, Line 6

"... flow greater tha~~t~~n ..."

Comment #2

*Frances Gailey* *American Assoc. of Family and Consumer Science*

1.2.1

What happened to original 2 (c )?

Comment #3

*Jim Jollay* *Char-Broil*

1.2.1c2a

Delete:

~~The by-pass of flow rate after the device activates will be the same as shall not exceed 10 scfh (0.28 $m^3$/h)~~

Rationale: Delete above sentece as it is a repeat from the previous paragraph.

Comment #4

*Norm Mattson* *Modine Mfg.Co.*

1.2.1c2a&b

Rationale: no rationale statement for addition & deletion.

Comment #5

*Thomas Harris* *Naval Facilities Engineering Command*

1.2.1c2(a)

"Delete the third sentence in it's entirety."

Revise the last sentence (third sub-paragraph) to read as follows: "The rate of bypass flow after the excess flow limiting device activates shall not exceed 10 scfh (0.28 m3/h) at 100 psi (690 kPa)"

Rationale: This eliminates the redundancy of these two sentences, fully names the device and flow rate of interest, and improves the logical flow of the section into activation test pressure, max activation flow rate classes, and max allowable rate of bypass flow. Also

coordinates the term "rate of bypass flow" with that used in paragraph 2.16a, the fifth sentence.

1.2.1c2(c )

Revise the rationale to read: "… thread that mates with .."

**Section 1.6.1**

Comment #6
*Ted Squires* *The Squires Company*

1.6.1d

add "&/or" the metric equivalent for Kbtu"

Rationale: The metric equivalent is used in all other places throughout all standards.

**Section 2.16**

Comment #7
*Ted Squires* *The Squires Company*

2.16.2a

Forth sentence to read in part as follows: "at the instant of closure of the excess flow limiting device, .."

Rationale: This fully names the device.

Comment #8
2.16.2b

Revise fourth sentence to read in part as follows: "At the instant of closure of the excess flow limiting device, .."
*Rationale: This fully names the device.*

Comment #9
*Paul Heald* *Marshall Gas Controls*

2.16.2 a&b

The test shall be repeated at supply pressure of 250 psi (1.7 Mpa) or the rated operating pressure, if higher.

The by-pass flow rate shall not exceed 16 SCFH at 250 psi (1.7 M Pa) inlet pressure.

Rationale:

…16 SCFH at 250 psi (1.7 Mpa) inlet pressure.

16 SCFH is too low and based on test data for these connections must be eliminated of increased to a scfh value much higher. Additionally, this requirement was not included until after these devices were designed and in production.

Comment #10

*Celia Gibbs* *Consumers' Association of Canada*

2.16.2 Para 2, Line 4 "..16 inches (40/6 mm) …"

# Attachment 5

*File J101.17-33*

# COMPILATION OF COMMENTS RECEIVED ON PROPOSED REVISIONS TO THE HARMONIZED AMERICAN NATIONAL STANDARD/ CANADIAN STANDARDS ASSOCIATION STANDARD FOR OUTDOOR COOKING GAS APPLIANCES, ANSI Z21.58/CGA 1.6

*****

## CORRESPONDENCE HAS BEEN RECEIVED FROM THE FOLLOWING INDIVIDUALS ENDORSING THE PROPOSED REVISIONS

Blake Alberts, SaskPower
Bruce Geren, General Services Administration
Dan Christenson, Gordon Pratt Products
Daniel Canclini, Rheem Manufacturing Company
Dough Perry, Maxon
~~Ed Grzesik, OMEE~~
Ed Hurd, BC Gas Safety Program
Edward Angelone, Key Span Energy
Eugene Marotta, Human Resources Development Canada
Frances Gailey, American Association of Fam. And Cons. Science
Jack Rea, Oklahoma Natural Gas
James Klein, Kodar
Jeff McCulloch, The Holland Company Inc.
Jerome O. Hendrickson, IAPMO
John Adams, Honeywell
John Battler, SBCCI
John Beck, PG&E
John Marshall, Enbridge Consumers Gas
Kai Wang, City of Industry, Ca
Martin Binet, Gaz Metropolitain
Neil Rolph, Weil-McLain
Peggy Smyth, Consumer Representative
Robert Hauserman, Ct Natural Gas
Ron McRae, GNWT
Ronnie Frazier, Oncor, TXU Electric & Gas
Walter G. Leight, NIST

*****

**CORRESPONDENCE HAS BEEN RECEIVED FROM THE FOLLOWING INDIVIDUALS INDICATING SPECIFIC COMMENTS TO THE PROPOSED REVISIONS**

**Section 1.1.4**

Comment #1

*Bruce Swiecicki, NPGA*

1.1.4b

"The NPGA requests that you permit it to submit a comment detailing its position after the NPGA Executive Committee meets August 21-23.

Rationale: Increasing the maximum cylinder size to 30 pounds raises issues related to fire safety, ergonomics, and infrastructure.

We request an extension of the comment period to allow the NPGA leadership to consider this proposal at its August meeting."

*Note: Please find attached for additional information a letter from Mr. Swiecicki of NPGA dated August 27, 2002 describing the decision of the NPGA Executive Committee on the 30-pound cylinder issue.*

Comment #2

*Jeff Kinler* *Henny Penny*

1.1.4c

Section should be reworded to allow for 2 20# cylinders of 1 30# cylinder.

Rationale: The rational statement in the proposed document indicates that it would be OK to have 2 20# cylinders if we knew they were both in use. The appliance won't be any more or less safe if one cylinder is turned off so I think it is fair to base the standard on the assumption that both are on.

Rationale: Greater availability, lower cost and more total capacity (40# vs 30#) without any compromise in safety should be adequate motivation to allow for this option!

Comment #3

*Jim Jollay* *Char-Broil*

1.1.4b

" .. supply system ~~provided the outdoor cooking gas appliance incorporates~~ with an integral cylinder …"

Rationale: Editorial change to make easier to read and understand. Per section 1.6.1 an appliance using self contained cylinder must have integral cylinder mounting.

Comment #4

1.1.4c

"..supply system ~~provided the outdoor cooking gas appliance incorporates~~ with an integral cylinder …"

Rationale: Editorial change to make easier to read and understand. Per section 1.6.1 an appliance using self contained cylinder must have integral cylinder mounting.

Comment #5

1.1.4d
d) Designed for the storage of only the cylinder currently in use.
Rational: This is a new statement as it was deleted in the "b" addenda. It needs to be underlined. Editorial change.
Comment #6
*Martin Petchul* *Pladmont Natural Gas*
1.1.4
1.1.6
I do not believe it is justified to expand the scope to include 30 lbs cylinders. The potential added safety risk and associated human ergonomics of handling the larger cylinders do not justify the minor practical benefits of the higher capacity vertical cylinders.

Comment #7
*Ron Mell* *Marshall Brass – S.H Leggitt Company*
Rationale for 1.1.4c
Last line first paragraph should read "greater OR equal to 80,000 Btu/h".
In last paragraph, second sentence strike the word "since" in third line, change the period after "time" in forth line to a comma and do not capitalize "therefore". This will make the second sentence complete.

**Section 1.1.5**
Comment #8
*Thomas Harris, Naval Facilities Engineering Command*
1.1.5
Revise the Rationale to read in part as follows: "... or 30 lb cylinder inside them."

**Section 1.1.6**
Comment #9
*Celia Gibbs* *Consumers' Association of Canada*
1.1.6 line 2
" ..LP gas cylinder and shall have ..."

Comment #10
*Jeff Kinler* *Henny Penny*
1.1.6
" an outdoor cooking gas appliance (see 1.1.4c) that is capable ..."
Rationale: Editorial clarification

Comment #11
*Jim Jollay* *Char-Broil*
1.1.6
Delete proposed 1.1.6 and replace with the following:

1.1.6 An outdoor cooking gas appliance built under 1.1.4c shall have all applicable tests conducted with both a 20 pound (9.1 kg) and 30 pound ( 13.6 kg) LP-gas cylinders.

Comment #12
*Ron Mell* *Marshall Brass – S.H Leggitt Company*
1.1.6
In the first line either add the word "that" before the word "is" or strike the word "is" to make this statement grammatically correct.

**Section 1.6.5**
Comment #13
*Norm Mattson* *Modine Mfg.Co.*

1.6.5

Z21.81!CSA 6.25

Rationale: Remove exclamation mark from standard reference. Statement appears throughout proposed revision.

Regulator temperature limitation is not consistent with 1.10.2 of Z21.89/CSA 1.18

~~Rationale: No rationale for changing temperature limit of regulator.~~

**Section 1.6.6.**
Comment #14
*Carey LaRose* *Alberta Municipal Affairs*
1.6.6c "have an~~d~~ excess"

Comment #15
*Celia Gibbs* *Consumers' Association of Canada*
1.6.6c
"have an~~d~~ excess.."

Comment #16
*Ron Mell* *Marshall Brass – S.H Leggitt Company*
1.6.6c
change "and" to "an"

Comment #17
*Thomas Harris, Naval Facilities Engineering Command*
1.6.6c
First sentence to read in part as follows: "Have an excess flow device.." Revise the last sentence to reading part as follows: "..activates will be not greater than 10 scfh…"

**Section 1.6.13**

Comment #18
*Celia Gibbs* *Consumers' Association of Canada*
1.6.13d #5&6
Conversions?

Comment #19
*Jim Jollay* *Char-Broil*
1.6.13d, 3
"LEAKING LP-GAS MAY CAUSE A FIRE OR EXPLOSION IF IGNITED CAUSING SERIOUS BODLY INJURY OR DEATH "

Rational: This part of the statement is new verbiage and needs to be underlined. It is underlined on sample exhibit.

Comment #20

*Norm Mattson* *Modine Mfg.Co.*

1.6.13d

- Items #1 and #11 in conflict for "danger" height requirement of are not identified on example label for proper location
- Item #14 changes "never" to "do not" in only one of two locations. Is there a reason only one changes?

Rationale: no rationale statement for changes.

Comment #21
*Thomas Harris, Naval Facilities Engineering Command*
1.6.13
Revise the rationale to read in part as follows: "Since all cylinder being manufactured..."

**Section 1.6.15&16**
Comment #22
*Bruce Swiecicki, NPGA*
1.6.15
1.6.16
It appears that the same provision is repeated in both sections.

Comment #23
*Carey LaRose* *Alberta Municipal Affairs*
1.6.16
Delete clause 1.6.16
Rationale: duplication of 1.6.15

Comment #24
*Jim Jollay* *Char-Broil*
1.6.16

Delete as this is a repeat of 1.6.15

Comment #25
*John Overall* *Union Gas*
1.6.15&1.6.16
Duplicate clauses with different rationale. Renumbering described under 1.6.16 not clear.
Rationale: Duplication not necessary. Editorial

Comment #26
*Norm Mattson* *Modine Mfg.Co.*

1.6.16

HFPA should be NFPA

Comment #27
*Ron Mell* *Marshall Brass – S.H Leggitt Company*
1.6.16
In the second line of the Rationale change HFPA to NFPA.

Comment #28
*Thomas Harris, Naval Facilities Engineering Command*
1.6.15&1.6.16
Delete in its entirety 1.6.16 including the rationale, since it duplicates paragraph 1.6.15 with its Rationale.

**Section 2.9**
Comment #29
*Carey LaRose* *Alberta Municipal Affairs*

2.9 Editorial: ANSI Z21.81!CSA 6.25
numbering 112 should be 12

Comment #30

*Ted Squires* *The Squires Company*
General comment: In some paragraphs the Btuh equivalent is shown in Watts but in most paragraphs it is not.

National **PROPANE GAS** Association
1600 Eisenhower Lane • Suite 100 • Lisle, IL 60532 • (630) 515-0600 • Fax (630) 515-8774

Bruce J. Swiecicki
Vice President, Technical Services
bswiecicki@npga.org

August 27, 2002

Ms. Senka Vukas Krsikapa
Project Manager
Canadian Standards Association

Sent via email

Dear Ms. Krsikapa:

NPGA's Executive Committee met last week in Washington, D.C., to discuss the proposal to permit cylinders having up to 30 pounds capacity to be used with outdoor cooking gas appliances. The Executive Committee appreciates the opportunity granted them to submit comments after the deadline.

After a lengthy discussion, the Executive Committee decided not to take a position on the issue at this time. The Committee feels that as long as the use and transportation of 30-pound propane cylinders is done in a safe manner, the market place should be allowed to decide the efficacy of using them with grills.

Thank you again for allowing us to comment on this issue.

Sincerely,

*Bruce J. Swiecicki*

cc: Cylinder Exchange Council

# Attachment 6

*File J101.17-33*

# COMPILATION OF COMMENTS RECEIVED ON PROPOSED REVISIONS TO THE HARMONIZED AMERICAN NATIONAL STANDARD/ CANADIAN STANDARDS ASSOCIATION STANDARD FOR OUTDOOR COOKING SPECIALTY GAS APPLIANCES, ANSI Z21.89/CSA 1.18

*****

## CORRESPONDENCE HAS BEEN RECEIVED FROM THE FOLLOWING INDIVIDUALS ENDORSING THE PROPOSED REVISIONS

| | |
|---|---|
| Blake Alberts | SaskPower |
| Bruce Geren | General Services Administration |
| Carey LaRose | Alberta Municipal Affairs |
| Celia Gibbs | Consumers' Association of Canada |
| Dan Christenson | Gordon Pratt Products |
| Daniel Canclini | Rheem Manufacturing Co. |
| Dough Perry | Maxon |
| Ed Grzesik | OMEE |
| Ed Hurd | BC Gas Safety Program |
| Edward Angelone | Key Span Energy |
| Eugene Marotta | Human Resources Development Canada |
| Frances Gailey | American Association of Family and Consumers Science |
| Jack Rea | Oklahoma Natural Gas Co. |
| James Klein | Kodar |
| Jeff Kinler | Henny Penny |
| Jeff McCulloch | The Holland Company Inc. |
| Jerome Hendrickson | IAPMO |
| Jim Jollay | Char-Broil |
| John Adams | Honeywell |
| John Battler | SBCCI |
| John Beck | PG&E |
| John Marshall | Enbridge Consumers Gas |
| John Overall | Union Gas |
| Kai Wang | City of Industry Ca |
| Martin Binet | Gaz Metropolitain |
| Martin Petchul | Pladmont Natural Gas |
| Neil Rolph | Weil-McLain |
| Peggy Smyth | Consumer Representative |
| Robert Hauserman | Ct Natural Gas |
| Ron McRae | GNWT |
| Ron Mell | Marshall Brass – S.H Leggitt Company |
| Ronnie Frazier | TXU Electric and Gas |
| Ted Squires | The Squires Company |
| Walter G. Leight | NIST |

*****

**CORRESPONDENCE HAS BEEN RECEIVED FROM THE FOLLOWING INDIVIDUALS INDICATING SPECIFIC COMMENTS TO THE PROPOSED REVISIONS**

Thomas Harris, Naval Facilities Engineering Command

Revise the Paragraph 1.20.1 a. "NOTE:" to read in part as follows: "... specific appliance may be deleted."

Rationale: The last two letters were cut off on my copy.

# Attachment 7

# STANDARDS PROPOSALS

Attachment 1 to ITEM 9
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

MAIL TO: Senka Krfikapa
178 Rexdale Blvd. Toronto, Ont. M9W 1R3
FAX: 416-747-2473
eMail: senka.krsikapa@csa.ca

DATE: July 1, 2002 NAME: Jim Jollay
ADDRESS: P.O. Box 1240 1442 Belfast Ave Columbus, GA 31902

TELEPHONE NUMBER: (706) 571-7000 Ext. 7326

REPRESENTING (Please indicate organization, company or self): Char-Broil

1. a) Title of Standard:
Outdoor Cooking Specialty Gas Appliance ANSI Z21.89 – CGA 11.18 2002

b) Section/Paragraph Number and Title, (Pg. No.): 1.8.1 (page 12)

2. Proposal Recommends: (check one)

| | New Text | Revised Text | Deleted Text |
|---|---|---|---|
| x | New Text | Revised Text | |

3. Proposal (to include proposed new or revised wording, or identification of wording to be deleted):

Add the following to 1.8.1 as a third paragraph.

Needle valves shall be listed to an appropriate national recognized standard i.e. UL 125, UL 842, etc.

4. Statement of Rationale for Proposal:

**Needle valves are commonly used to control the gas flow on fryer/boilers. During the drafting of this standard they have been overlooked. The current section1.8.1 applies to plug design valves and there is no reference to needle valves and there listing to a standard. This change attempts to correct this shortcoming.**

5. This proposal is original material.
x

This proposal is not original material, its source (if known) is as follows:

(Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought, or research and to the best of his/her knowledge, is not copied from another source.)

I agree to give full rights, including rights of copyright, in this proposal and I understand that I acquire no rights in any publication in which this Proposal is used in its original form or another similar analogous form.

Jim Jollay
Signature

# Attachment 8

ITEM 10
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**PROPOSED REVISIONS TO THE HARMONIZED STANDARD ON SPECIALTY COOKING APPLIANCES, ANSI Z21.89/CSA 1.18 SUBMITTED BY EQA**

Action Requested:

Consider adopting proposed revisions to ANSI Z21.89/CSA 1.18 standard for distribution for Public Review and Comment and addressing additional concerns identified by CSA International.

Background:

CSA International's EQA (Engineering Quality Assurance) group reviewed published ANSI/CSA harmonized standard for Outdoor Specialty Cooking Appliances, Z21.89/CSA 1.18.

Proposed revisions to Z21.89/CSA 1.18 standard and additional concerns identified by CSA International are presented in attachment 1 to this item.

September 16, 2002

CSA International would like to forward

1) Proposed revisions to the ANSI Z21.89/CSA 1.18 standard to joint TAG for its consideration at the September 24-25, 2002 meeting.
2) Additional identified concerns for consideration by TAG

1) The following revisions are specifically intended to address fryers. It is understood that many of these appliances are certified as boilers as well. In such a case - fryer/boiler, the requirements will apply to both, since we cannot exclude its use as a fryer.

The proposal for the instruction manual is presented as Warnings, Cautions, and additional Instructions to emphasize the relative importance of the requirements.

**1.20 INSTRUCTIONS**

Each appliance shall be accompanied by clear, concise printed instructions and diagrams, stated in terms adequate for proper field assembly, installation, maintenance, safe use and operation.

Safety concepts (outdoor use, attended while in use, follow all user instructions in detail, set up / location, oil temperature, personal safety equipment, emergency action) ~~must~~ be stated at the beginning ~~of the instruction manual (quick reference and summary form) and should~~ be repeated as necessary in the sequential flow of instructions describing the use of the fryer in the cooking process.

*Rationale:* *As the user instructions play a crucial role in the safe use of a deep fryer, it is prudent to identify the most important information in summary form and repeat it in conjunction with the instruction details to reinforce the safety aspect of each step in the food frying process.*

The safety-related items included in the instructions shall be prominently displayed and shall precede the instructions concerning the functional use of the appliance.

The instructions shall be marked with directions to the installer to leave them with the consumer and to the consumer to retain them for future reference.

The instructions shall be reviewed by the testing agency for comprehensibility, accuracy and compatibility with results of test.

1.20.1 The front cover or the first pages of the instructions shall bear the following under the title of "WARNIGS" using a minimum of 12 point bold face font:

a.

The instruction manual contains important information necessary for the safe use of the fryer.

Read all instructions before using the fryer.

Follow all instructions when using the fryer.

Store these instructions with the fryer.

DO NOT DISCARD THIS INSTRUCTION MANUAL.

---

*Rationale:* *The instruction manual should bear the text noted above in recognition of the crucial role the instructions play in the safe use of this fryer.*

b. Failure to follow these instructions could result in fire or explosion that could cause property damage, or severe personal injury.

*(Revised and replaces 1.20.1-b)*

*Rationale:* *The descriptor "death" must be reserved for "Danger" markings. Danger markings are fundamentally unacceptable for use with consumer products.*

*While it is foreseeable that a consumer may suffer severe burns as a result of misuse of a deep fryer, it is not likely that misuse of a deep fryer will directly result in death.*

~~a~~ c. Boxed warnings in 12 point boldfaced type:

| FOR YOUR SAFETY |
|---|
| If you smell gas:<br>1. Shut off gas to the appliance.<br>2. Extinguish any open flame.<br>3. Open lid.<br>4. If odor continues, immediately call your gas supplier or your fire department. |

FOR YOUR SAFETY

1. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

~~2. When cooking with oil/grease, do not allow the oil/grease to exceed 350°F (177°C). Do not store or use extra cooking oil in the vicinity of this or any other appliance.~~

*Rationale: Addressed in the box warning below.*

3. An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

## WARNING

**1. Do not operate this fryer unattended. The user shall remain in the immediate area of the fryer and have a clear view of the fryer at all times during operation.**

**~~1~~ 2. Do not ~~store~~ operate this fryer within 10 feet (3 m) of ~~spare LP~~ any stored flammable gas cylinder ~~within 10 feet (3.05 m) of this appliance~~.**

**~~2~~ 3. Do not ~~store~~ operate this fryer within 25 feet (7.5 m) of ~~or use~~ gasoline or other flammable liquids or vessels containing same ~~or in the presence of vapors within 25 feet (7.62 m) of this appliance~~.**

**~~3~~ 4. When cooking with oil/grease, do not allow the oil/grease to get hotter than 350°F (~~176.5~~ 175 °C).**

*Rationale:* *Original Items 1 and 2: The wording must be appropriate for, and be applicable to, the actions of the fryer users.*

*Original Item 4: Cold cooking oil does not warrant a high profile warning marking. The modification of this item (as proposed) is not necessary if it is deleted altogether – in view of the addition of new Item 1.*

*Warning markings should be prioritized according to the degree of risk they present. In this case attending the fryer should be given a higher priority than locating away from stored gas cylinders / gasoline vessels (which may not always be present).*

*Temperature values should not imply a degree of precision that is unnecessary or unachievable.*

NOTE: Boxed warnings above that are not applicable to a specific appliance may be deleted.

~~b. A statement in 12 point bold faced type advising the consumer that failure to follow these instructions could result in fire or explosion which could cause property damage, personal injury or death.~~

d. This fryer must be attended at all times while in use. Do not leave this fryer unattended while heating oil, grease or water, cooking food or when hot after use oil, grease or water above 100°F (38°C)]. Heated liquid can remain at scalding temperatures long after cooking has ended.

Keep children and pets away from the fryer at all times.

***(Revised and replaces1.20.2-a13(e))***

*Rationale: The wording must clearly communicate the expected action of a user. Although the first sentence has relevance to the standards development process, it is merely a statement of information as opposed to a call for action.*

e. (New) To prevent accidental fires, before using the fryer ensure that the hose is not damaged and all joints and connections are not leaking by turning on the cylinder valve, leave the fryer valve closed, and apply a soapy solution to the joints and connections. If a continuous hissing sound is heard, or if the soapy solution bubbles, there is a leak. Do not use the fryer if there is a leak. Consult the manufacturer's literature for how to obtain and replace the faulty parts.

*Rationale: Leak detection is a preventative measure to avoid fires or personal injury.*

f. This fryer is for outdoor use only. Do not operate this fryer in a building, garage or enclosed area. Do not operate in or on a recreational vehicle or boat. Never use this fryer as a space heater.

***(Revised and replaces 1.20.2-a2, 1.20.2-a4 and 1.20.2-a13(h))***

*Rationale:* *The word "use" was changed to the phrase "operate this fryer" for clarity and for consistency with the revised wording of 1.20.2-a6 below.*

*"Space" (heater) was added to clearly identify the application that is to be avoided – as the fundamental purpose of the fryer is to provide heat for cooking.*

g. Do not operate this fryer under any overhead roof covering (car port), awning or overhang. Keep a minimum clearance of 10 feet (3 m.) from all sides of the fryer to all construction. Keep the area clear of all flammable liquids, combustible material including but not limited to wood (all forms), dry plants including grass, brush, paper, and canvas.

***(Revised and replaces1.20.2-a6 and 1.20.2-a13(d))***

*Rationale:* *"Locate" was changed to "operate" to clarify the intent of the instruction. It is acceptable to locate the fryer under an overhang – provided it is not operated.*

*"Awning or overhang" was added to avoid misinterpretation of "overhead construction", as awnings and overhangs are not commonly considered to be "construction".*

*The text was changed to "all sides" to avoid the need to interpret "front and back" – which are neither defined nor identified.*

*"Any" was changed to "all" to avoid implying that the user can choose.*

*Examples were added to the last sentence for clarity.*

1.20.2 Immediately following the WARNINGS of Section 1.20.1 above, the instruction manual shall contain the following under the title "CAUTIONS" using a minimum of 12 point bold face font:

a. (New) Manufacturers shall provide a list of protective wear, such as apron, footwear, and gloves that will prevent burn hazards while attending to the fryer.

*Rationale:* *Working with hot oil could result in splatter, or accidental contact with the hot oil which can result in immediate and severe burns.*

b. Use only on a level, hard, non-combustible surface like brick, and concrete or compacted dirt. Do not use this fryer on a soft surface such as sand, or any surface that will soften with heat such as asphalt; or any surface that will ignite such as wood, asphalt or plastic.

***(Revised and replaces1.20.2-a13(d))***

*Rationale:* *The term "stable" is too broad to invoke a common understanding without further explanation. The term "hard" is preferred to "stable".*

*"Compacted" (dirt) was added to avoid placement on a surface that cannot support the fryer without shifting and potential upset.*

*Placement on "sand" must be avoided as stability cannot be predicted.*

c. (New) Keep the fuel supply hose away from all hot surfaces identified in these instructions.

Note: Hot surfaces to be identified by the manufacturer.

*Rationale: As the supply hose will be capable of withstanding a specific temperature on a continuous basis, only surfaces that exceed the hose "temperature rating" need be identified.*

*The user instructions should identify the specific surfaces with which hose contact is to be avoided.*

*Verification of "hot surfaces" should be carried out in conjunction with 2.16 "Temperatures of Gas-Carrying Components".*

d. Before cooking with oil or grease, have a fire extinguisher rated "(insert extinguisher capacity here)BC", or larger, readily accessible.

Note: Size of the fire extinguisher is based on the largest capacity of oil specified by the manufacturer for use with the fryer.

***(Revised and replaces1.20.2-a13(b))***

*Rationale:* *It is necessary to specify the minimum size of fire extinguisher that is sufficient to extinguish the largest volume of oil that can be held by the cooking vessel. The latter deleted text was replaced by the new items below.*

e. (New) When cooking with oil or grease, the thermometer provided MUST be used. Follow instructions in this manual for proper installation and use of thermometer. If the thermometer supplied with this fryer has been lost, a replacement shall be obtained from the manufacturer.

*Rationale:* *Guidance must be provided to address the installation and use and possibility of loss of the original thermometer.*

f. Never let the oil or grease temperature get hotter than 350°F (175 °C).

***Revised box warning of 1.20.1a. Item 3***

*Rationale:* *The metric temperature value was rounded to avoid implying an unnecessary degree of precision. This item was broken into two separate warnings for clarity, in view of the third item added below.*

g. (New) If the temperature exceeds 350°F (175 °C) or if oil begins to smoke, immediately turn the burner or gas supply OFF and wait for the temperature to decrease to less than 350°F (175°C) before relighting burner according to the manufacturer's instructions. If there is a lid (cover), do not remove the lid.

*Rationale:* *The metric temperature value was rounded to avoid implying an unnecessary degree of precision.*

*Reference to "gas supply" was added as an alternative method of control (especially important if the oil has ignited or reached the boiling point).*

*The instructions should sufficiently complete to allow the cooking process to continue to completion after user intervention (i.e. gas shut off).*

h. When cooking, if the oil or grease has ignited, do not attempt to extinguish with water. Immediately turn burner or gas supply OFF and if possible extinguish flames by placing the lid on the pot or by using a dry chemical type "(*insert extinguisher capacity identifier here*) BC" fire extinguisher.

*Warning: Food contaminated with chemical residue from a fire extinguisher should not be consumed.*

If oil or grease has spilled and ignited, do not attempt to extinguish with water. Immediately turn gas supply OFF at the supply cylinder and:

- Extinguish flames using a "(*insert extinguisher capacity identifier here*) BC" type fire extinguisher as recommended by the fryer manufacturer; or
- Smother flames with dirt or sand.

***Revised 1.20.2 a.13(b)***

*Rationale:* *Additional instructions / information provided to address the possibility of oil ignition and ignition / spillage.*

i. (New) In case there is a fire, call the local fire department or dial 911.

*Rationale:* *Oil fires could be difficult to control and the only reliable fire-fighting expertise are professional fire-fighters obtained by calling the emergency number.*

j (New) Use only those accessories, such as cooking vessels recommended by the manufacturer, to allow for safe and proper performance of the fryer.

*Rationale:* *Accessories certified with the burner assembly are the only ones evaluated for safety as part of the fryer.*

i. In order to avoid excessive operating temperatures and fryer damage, do not place an empty cooking vessel on the fryer while in operation.

***(Revised and replaces1.20.2-a13(f))***

*Rationale:* *The text was changed to identify the nature of the hazard.*

*This item was separated into two parts, as the concepts of cooking vessel damage and oil spillage from meat insertion are unrelated.*

j. (New) Never overfill the cooking vessel with oil, grease or water. Follow instructions in this manual for establishing proper oil, grease or water levels.

k. (New) Introduction of water from any source into the cooking oil or grease may cause overflow and severe burns from hot oil and water splatter. When frying with oil or grease, all food products MUST be completely thawed and towel dried to remove water before being immersed in the fryer.

*Rationale:* *Overflow can be caused by the introduction of water from any source not just frozen or wet food. This item should be grouped with (1.20.2-a13(c) - Revised) in the instructions. Hot oil and water will splatter when the water begins to boil.*

*"Before being immersed in the fryer" was added to convey the time imperative.*

*The latter sentence (i.e. to follow frying instructions) should be made conspicuous by being located at the beginning of the instruction booklet rather than being buried inside the instructions*

l. (New) Take care to avoid hot oil spillage that may result from accidental bumping of or impact with the cooking vessel.

*Rationale: With the weight of turkeys sometimes in excess of 15lbs, the momentum may be sufficient while moving it to the cooking vessel to cause spillage of hot oil if there is an impact with the vessel.*

m. (New) In order to avoid oil or grease splashing and overflow, lower food and accessories slowly into the cooking vessel. Do not drop food or accessories into the oil or grease.

*Rationale: The text was modified to communicate the nature of the hazard as well as the actions to be taken (and avoided).*

n. (New) To avoid accidental burns from burner flame or hot oil, turn off the burner before inserting or removing food from the fryer.

o. (New) When removing food from the fryer care shall be taken to avoid burns from hot oil drippings.

p. In the event of rain, snow, hail, sleet or other form of precipitation while cooking with oil or grease, cover cooking vessel and turn off the gas supply to the burner. Do not attempt to move the fryer or the cooking vessel while the burner is lit or the cooking vessel and its contents are hot.

***(Revised and replaces1.20.2-a13(c))***

*Rationale: There is no hazard from rain provided the cooking vessel is covered to exclude water (i.e. all forms of precipitation). Turn of the gas supply to allow the oil to cool. Otherwise, there may be inadvertent entry of water into the hot oil when the cover is being removed or from leakage of water into the cooking vessel*

*If the thermometer is located inside the pot where it cannot be seen, the cooking process should be stopped if the oil temperature has not been stabilized (requires an additional instruction).*

*The latter text was added as a hazard only exists when the flame is lit or when the cooking vessel contents are hot.*

*This item should be grouped with the" new" item regarding overflow (due to water) in the instructions.*

q. Do not move the fryer while in use or the oil is hot. Allow the cooking vessel to cool before moving or storing.

***(Revised and replaces1.20.2-a13(g))***

r. (New) After using this fryer connected to a propane cylinder, ensure that the cylinder valve is turned off.

s. (New) Extinguish all open flames before connecting the gas supply to the fryer and before checking for leaks.

*Rationale: Moved from general Instructions to Cautions because it requires a higher level of care.*

---

t. (New) Do not smoke while connecting the gas supply to the fryer and while checking for leaks.

*Rationale: These items should be added to fryer set-up instructions to avoid a gas leak hazard that can exist during set up, and up to the point of connection integrity verification.*

1.20.~~2~~ 3 The instructions accompanying the appliance include:

---

~~a. For all appliances:~~

1. A statement that the installation must conform with local codes or, in the absence of local codes, with the *National Fuel Gas Code, ANSI Z223.1, Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58* or *CSA B149.1, Natural Gas and Propane Installation Code.*

~~2. Instructions to the effect that this appliance shall be used only outdoors and shall not be used in a building, garage or any other enclosed area.~~

*Rationale: Addressed in 1.20.1 f.*

3. If an external electrical source is utilized, a statement that the appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.1.*

4. ~~A statement that this appliance is not intended to be installed in or on recreational vehicles and/or boats.~~

   *Rationale: Addressed in 1.20.1 f.*

5. Manufacturer's, distributor's, jobbers or dealers name, as it appears on the name plate; and address and appliance model or series number.

6. ~~Information specifying the necessity for maintaining proper clearances from combustible construction, the specific minimum clearances from such construction to the sides and back of the appliance, and that the appliance shall not be located under overhead unprotected combustible construction.~~

*Rationale: Addressed in 1.20.1 g.*

7. Directions for proper assembly and for assembly of field-installed parts and accessories supplied with the appliance, and proper procedures for gas leak testing.

8. Information on the importance of properly locating the burner with respect to the orifice and instructions on how to verify the proper installation.

9. An instruction to clean and inspect the hose before each use of the appliance. If there is evidence of abrasion, wear, cuts or leaks, the hose must be replaced prior to the appliance being put into operation. The replacement hose assembly shall be that specified by the manufacturer.

~~If removal of an access plate(s) or opening of a door(s) is required for~~ this inspection, instructions shall be provided on how to gain access for inspection.

10. When a flexible service cord is provided to connect the appliance to a line-voltage electrical supply, the intent of the warning statement specified in 1.20.8 and a statement as follows:

□Keep any electrical supply cord and the fuel supply hose away from any heated surfaces□

11. Lighting instructions and control operation, including pictorial ~~representations.~~

12. A statement that the appliance is not intended for commercial use;

13. If applicable, statements indicating that:

(a) The use of alcohol, prescription or non-prescription drugs may impair the consumer's ability to properly assemble or safely operate the appliance.

~~(b) When cooking with oil/grease, fire extinguishing materials shall be readily accessible. In the event of an oil/grease fire do not attempt to extinguish with water. Use Type BC dry chemical fire extinguisher or smother fire with dirt, sand or baking soda.~~

*Rationale: Addressed in under 1.20.2 d, and h.. under Cautions.*

~~(c) In the event of rain while cooking with oil/grease, cover the cooking vessel immediately and turn off the appliance burners and gas supply. Do not attempt to move the appliance or cooking vessel.~~

(d) ~~When cooking, the appliance must be on a level, stable surface in an area clear of combustible material. An asphalt surface (blacktop) may not be acceptable for this purpose~~.

*Rationale: Addressed in 1.20.1 g.*

~~(e) Do not leave the appliance unattended. Keep children and pets away from the appliance at all times.~~

*Rationale: Addressed in 1.20.1 d. under Warnings.*

~~(f) Do not place empty cooking vessel on the appliance while in operation. Use caution when placing anything in cooking vessel while the appliance is in operation.~~

~~(f) Do not move the appliance when in use. Allow the cooking vessel to cool before moving or storing.~~

*Rationale: Move and addressed in 1.20.1 r.*

(h) ~~This appliance is not intended for and should never be used as a heater.~~

*Rationale: Addressed in 1.20.1 f.*

14. Maintenance instructions (including recommended frequency guidelines) relative to:

(a) Keeping appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

(b) Not obstructing the flow of combustion and ventilation air.

(c) Keeping the ventilation opening(s) of the cylinder enclosure free and clear from debris.

(d) Visually checking burner flames, with pictorial representations.

~~(e) Cleaning appliance, including special surfaces, with~~ recommended cleaning agents, if necessary.

(f) Checking and cleaning burner/venturi tubes for insects and insect nests. A clogged tube can lead to a fire beneath the appliance.

15. Information for obtaining replacement parts and where they are obtainable.

b. For fryers:

1. (New) Manufacturers shall specify the maximum and minimum quantity, or the required maximum and minimum level of the oil in the cooking vessel for each type of food product for which this fryer is intended to cook. The quantities may be indicated by permanent marks on the cooking vessel. The maximum level of oil obtainable when the largest volume of food is placed in the cooking vessel must be marked on the vessel.

*Rationale: To provide the user with oil quantities that will prevent over-filling, which could result in oil spillage, and under-filling which could result in overheating the oil.*

2. (New) The user instructions shall contain a list of parts, and accessories supplied with the fryer.

*Rationale: It is important that all parts of the fryer, including user instructions are available before using the fryer.*

3. (New) The manufacture shall provide instructions on what action to take if the burner flame is accidentally extinguished.

*Rationale: If the flame is accidentally extinguished, additional steps may have to be taken other than simply relighting in order to maintain the temperature below 350 F.*

4. (New) Insert food gently into the cooking vessel, while observing the oil level, so as to avoid accidental oil spillage.

*Rationale: This is additional precaution to ensure that oil spillage does not occur.*

5. (New) Manufacturer shall supply instructions on how to attain and maintain the oil temperature below 350°F (175°C).

*Rationale: The thermometer is a gauge, but action may be required by the user in order to main the oil temperature below 350F.*

6. (New) Manufacturer shall supply instructions on how to remove cooked food from the fryer.

*Rationale: Removal of food may present burn hazard, additional instructions on how to prevent these hazards will be required.*

7. (New) The manufacturer shall recommend the type of oil to be used with fryers, e.g. vegetable oil, animal fat, etc.

*Rationale: The properties of the oil will determine the physical performance and characteristics, e.g. flash point, cooking times, and the time it takes to reach 350F.*

8. (New) The manufacturer shall specify the maximum number of times oil or grease can be reused.

*Rationale: The physical properties of oil will change with use. The manufacturer shall indicate how many times oil can be used while maintaining characteristics that will permit performance contemplated by this standard and the intended cooking function.*

9. (New) The manufacturer shall specify any specific configuration of the cooking vessel for proper and safe usage, such as position of the vessel over the burner, use of a vessel lid while cooking, and position of the thermometer.

*Rationale: Cooking parameters may be a function of the configuration of the components of the fryer.*

10. (New) Instructions shall be provided to the user to check for damage on the vessel before use.

*Rationale: Damaged cooking vessel could affect the filling level of oil and consequently the susceptibility to spillage or cooking performance.*

11. (New) Instructions shall be provided to the users to check for proper functioning of the thermometer before each use of the fryer by inserting it into a pot of boiling water and ensuring that it registers approximately 212°F (100°C). If it does not function properly, contact the manufacturer to obtain a replacement before using the fryer.

*Rationale: This requirement provides a level of confidence to the user that the thermometer being used is functioning properly. Oiling water is a convenient medium to check for proper function at that temperature range.*

b. For an appliance designed for use with a self-contained LP-gas or propane gas supply system:

1. The specific size and capacity of the cylinder to be used.
2. A statement that the LP-gas supply cylinder to be used must be constructed and marked in accordance with the specifications for LP-gas cylinders of the U.S. Department of Transportation (DOT) *CFR 49* or the National Standard of Canada, *CAN/CSA-B339, Cylinders, Spheres and Tubes for the Transportation of Dangerous Goods.*
3. How to connect and disconnect the LP-gas or propane gas supply cylinder and the proper procedure for leak checking the connections.
4. When the appliance is equipped with a No. 600 Connection (see 1.6.4), a statement which specifies that the cylinder be disconnected when the appliance is not in use.

   If a connection No. 600 is used, a statement that only cylinders marked □propane□ must be used.
5. When an appliance is equipped with other than a No. 600 connection, a statement that if the appliance is not in use, the gas must be turned off at the supply cylinder.

   Storage of an appliance indoors is permissible only if the cylinder is disconnected and removed from the appliance.

   Cylinders must be stored outdoors out of the reach of children and must not be stored in a building, garage or any other enclosed area.

6. A statement that the pressure regulator and hose assembly supplied with the appliance must be used. Replacement pressure regulators and hose assemblies must be those specified by the appliance manufacturer.

7. Information on connecting the pressure regulator in accordance with the applicable portions of 1.6.4.

8. Diagrams illustrating the LP-gas cylinder valve/connection device that will properly and safely mate with the connection device attached to the inlet of the pressure regulator supplied with the appliance.

9. A statement that the cylinder supply system must be arranged for vapor withdrawal.

10. A statement that the cylinder used, if in excess of 2.7 lbs. (1.23 kg.) propane capacity, must include a collar to protect the cylinder valve.

11. A diagram with dimensions showing the manufacturer's recommended position of the fryer/boiler and its supply cylinder shall be included. At a minimum, the diagram shall be in a WARNING format in accordance with *ANSI Z535.4*. (See 1.6.2).

12. A statement:

(a) Do not store a spare LP-gas cylinder under or near this appliance;

(b) Never fill the cylinder beyond 80 percent full; and

(c) If the instructions in "(a)" and "(b)" are not followed exactly, a fire causing death or serious injury may occur.

c. For post-mounted appliances:

A statement that in-ground metallic posts shall be protected against corrosion as warranted by soil conditions. Corrosion protection shall be provided as needed with a suitable coating to retard the effects of corrosion conditions existing in local areas.

1.20.3 The instructions accompanying an appliance for use with other than a self-contained LP-gas or propane gas supply system shall include a statement that:

a. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of $^1/_2$ psi (3.5 kPa).

b. The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than $^1/_2$ psi (3.5 kPa).

1.20.4 See also 1.11.2, 1.11.3 and 1.12.1.

## 1.21 MARKING

1.21.1 Marking material shall be identified by class number and shall meet the following specifications. All metal marking materials shall be rustproof. All markings shall be suitable for application to surfaces upon which applied and shall demonstrate suitable legibility as specified under 2.25, Marking Material Adhesion and Legibility. The designation of any class of marking shall not preclude the use of a lower number class.

Class I. Integral Marking

Marking that is embossed, cast, stamped or otherwise formed in the part. This includes markings baked into an enameled surface.

Class IIA-1. Permanent Plate

Shall be made of metal having a minimum thickness of 0.012 inch (0.30 mm) and shall be securely attached by mechanical means.

Class IIA-2. Permanent Plate

Shall be made of metal having a thickness of 0.006 to 0.012 inch (0.15 to 0.30 mm) and shall have mechanical attachment means at all corners with a maximum spacing of 6 inches (152 mm) between mechanical fasteners.

Class IIA-3. Permanent Plate

Shall be made of metal having a thickness less than 0.006 inch (0.15 mm). Such plates shall be attached by means of nonwater-soluble adhesive which will comply with 2.25, Marking Material Adhesion and Legibility. These materials shall not be located on surfaces having temperatures exceeding 300°F (149°C) as determined during conduct of 2.20, Wall and Floor Temperatures.

Class IIA-4. Permanent Plate

Shall be made of pressure-sensitive metal foil requiring no solvent or activator, provided such plates comply with 2.25, Marking Material Adhesion and Legibility. These materials shall not be located on surfaces having temperatures exceeding 300°F (149°C) as determined during conduct of 2.20, Wall and Floor Temperatures.

Class IIIA-1. Permanent Label

Shall be made of material not adversely affected by water, shall be attached by means of nonwater-soluble adhesive and shall comply with 2.25, Marking Material Adhesion and Legibility. These materials shall not be located on surfaces having temperatures exceeding 300°F (149°C) as determined during conduct of 2.20, Wall and Floor Temperatures.

Class IIIA-2. Permanent Label

Shall be made of material not adversely affected by water, shall be attached by means of nonwater-soluble adhesive and shall comply with 2.25, Marking Material Adhesion and Legibility. These materials shall not be located on surfaces having temperatures exceeding 175°F (79.5°C) as determined during conduct of 2.20, Wall and Floor Temperatures.

Class IIIB. Waterproof Marking

Shall be printed directly on the part with waterproof marking not adversely affected by a temperature of 175°F (79.5°C). This marking shall not be used on surfaces having temperatures exceeding 175°F (79.5°C) as determined during conduct of 2.20, Wall and Floor Temperatures.

Class IIIC. Waterproof Label

Shall be made of material not soluble in water and may use water-soluble adhesive for attachment means.

Class IV. Semi-Permanent Label

Shall be made of material which may be soluble in water, and may use water-soluble adhesive for attachment means.

~~Class V. Printed Marking~~

Marking shall be clear and prominent and may be applied directly by any printing means.

Class VI. Attached Tags

1.21.2 NAME PLATE(S). Each appliance shall bear a marking of Class IIIA-2 marking material located on the appliance or supporting structure where it can be easily read and on which shall appear the following:

a. Manufacturer's or dealer's name and address.

b. Model number of the appliance.

c. An identification number which stipulates the manufactured date of the appliance by month and year or equivalent means of product manufacture traceability acceptable to the certification agency.

d. The manufacturer's normal hourly Btu input rating for all main burners.

e. The type(s) of gas for which equipped as follows: Nat., Mfd., Mix., LP, Propane,____Btu LP gas-air mixtures. (For LP gas-air mixtures the heating value or range of heating values shall be indicated.)

f. The statement, "For Outdoor Use Only. if Stored Indoors, Detach and Leave Cylinder Outdoors." The marking for an appliance for connection to a fixed fuel piping system need only display the first sentence of this statement.

g. If the appliance utilizes any electrical equipment, the voltage, frequency and current input.

h. Identification of this standard by indicating either this edition of the standard, or the most recent effective addenda thereto, with one of the following markings:

□ANS Z21.89 □ CSA 1.18-(year) Outdoor Cooking Specialty Gas Appliance□

□ANS Z21.89a □ CSA 1.18a-(year) Outdoor Cooking Specialty Gas Appliance□

or

□ANS Z21.89b □ CSA 1.18b-(year) Outdoor Cooking Specialty Gas Appliance□

i. The symbol for the organizations making the tests for compliance with this standard.

j. Minimum distance from sides and back of unit to walls or railings is ___ inches (___ mm). Do not use under overhead construction;

k. □This appliance is not intended for commercial use.□

1.21.3 Each fryer/boiler shall bear a Class IIIA-2 marking, located where it can be easily read

a. showing the manufacturers recommended position, including dimensions, of the fryer/boiler and its supply cylinder and a minimum warning level advising the end user of the potential hazard of placing the cylinder too close to the appliance; and

b. ~~containing the following:~~

"Fryer

The user manual contains important information necessary for the safe use of the fryer.

Read all instructions before using the fryer.

Follow all instructions when using the fryer.

If instructions or parts are missing contact the manufacturer or dealer listed on the fryer"

*Rationale: This information is extremely important for all users at all times and prominently displaying it is the most effective way of ensuring it is seen.*

1.21.4 Lighting Instructions: Each appliance shall bear Class IIIA-2 marking located on the appliance where it can be easily read during operation of the burner control and on which shall appear the following:

1. Read all instructions before lighting.

2. Open lid during lighting.

3. If ignition does not occur in 5 seconds, turn the burner control(s) off, wait 5 minutes, and repeat the lighting procedure.

Exception: If the appliance does not have a lid, item 2 may be eliminated.

This marking shall have a minimum letter height of $^1/_8$ inch (3.2 mm).

1.21.5 Where necessitated by the position of the igniter, a multiple burner appliance shall bear a Class IIIA-2 marking indicating the burner which must be lit first.

1.21.6 Appliances for connection to a self-contained LP-gas supply system shall bear the following marking on Class IIIA marking material:

"CAUTION: The gas pressure regulator provided with this appliance must be used. Replace only with regulator Model No._____ (Model No. to be provided by the appliance manufacturer)"

1.21.7 An open top appliance having an attached top cover which is not intended to be closed when the appliance is in operation, shall bear a permanent marking on Class IIIA marking material as follows:

Top cover must be open when main burner(s) is in operation."

1.21.8 An appliance provided with a flexible service cord for connection to a line-voltage electrical supply shall bear a Class VI marking attached to the plug end of the cord which includes the following information:

WARNING
Electrical Grounding Instruction

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

1.21.9 When a minimum letter height is not specified for markings, a minimum letter height of 6 point shall be used.

1.21.10 Also see provisions of 1.6.14 and 1.8.7.

**Add a New Section 2.24 (renumber existing 2.24 onwards)**

## 2.24 Thermometers

**2.24.1 (New)** The monitoring thermometer markings shall be tamper-proof, and shall be oil resistant.

All parts of a thermometer must be capable of maintaining a fixed relationship with each other and must not be adjustable with either hand tools or with the bare hands.

The marking on a thermometer shall remain legible after complete and continuous submergence in cooking oil at room temperature for a period of 48 hours.

**2.24.2 (New)** Accessory thermometers must be verified in the laboratory to register 350F or higher when compared with a calibrated thermometer in an oil bath at 350F.

*Rationale: The above requirements of this section are intended to address what a suitable thermometer means.*

**Cooking Vessel Handle Temperatures**

2..21 The cooking vessel handles and pot handles shall also be subjected to the same Handle Temperature limits of Section 2.21 of the latest standard.

***(Revise 2.21 to add)***

*Rationale: The handle of a cooking vessel is very susceptible to being held while hot, so it must meet the same requirements as Section 2.21.*

2) Additional concerns of CSA International

In addition to specific proposed revisions to the standard, CSA International suggests that the following construction and performance related issues be considered and addressed by TAG at the September 2002 meeting, or in near future:

1. During the Tip Test, 2.19.4, the vessel shall be filled to the maximum fill level obtainable when the largest quantity of food product for which the appliance is designed to cook is in the vessel. The water or oil shall not spill at anytime during this test.

2 The appliance shall be capable of maintaining the temperature of cooking oil below a temperature that will allow the oil to reach the flash point, with some allowance for safety. The minimum quantity of oil specified by the manufacturer shall be placed in the smallest cooking vessel specified by the manufacturer for frying purposes, but not less than some quantity (percentage) of the smallest capacity cooking vessel recommended by the manufacturer for use with this appliance.

Notes:

1. The maximum diameter of the smallest capacity cooking vessel must be specified by the manufacturer shall be used for this test.
2. The environmental conditions of this test will have to be standardized.

Rationale: The purpose of this test is to provide requirements that will establish uniform acceptance tolerance for preventing the cooking oil from approaching its flash point. The maximum diameter of the smallest pot specified by the manufacturer is required for this test because it will allow the maximum heat transfer.

3. Clause 1.2.10 (fixed relationship pf parts) shall also apply to accessories, such as cooking vessels.

4. Clause 2.19.4 shall be amended so that the tip test is also applied to the vessel, regardless of how the appliance is anchored to a base.

5. Developing a Tripping Test to simulate someone tripping on the supply hose, unless the design of the cylinder and appliance with the cooking vessel retention means prevents this from occurring.

6. An Impact Test to simulate the vessel being impacted by a turkey being transferred to the cooking vessel.

# Attachment 9

ITEM 11
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**A LETTER FROM UL REGARDING ADOPTED STANDARDS COVERAGE FOR TURKEY FRYERS**

Action Requested:

Review for information and potential action.

Background:

In October 2001, proposed harmonized standard on Outdoor Cooking Specialty Gas Appliances, Z21.89/CSA 1.18 was submitted by letter ballot to the Z21/83 Committee for approval. The standard was approved with no negative comments. An affirmative vote with comments was submitted by Mr. Harry Jones of UL. Mr. Jones' comments were reviewed by the Outdoor Cooking joint subcommittee at their February 2002 meeting. The following is an abstract from February 2002 minutes:

"The subcommittee reviewed Mr. Jones' comment and rejected his proposed elimination of "Turkey Fryers" from the scope of standard for Specialty Cooking Appliances, Z21.89/CSA 1.18. It was commented that "Turkey Fryers" had initiated a development of this standard and that the intent was to cover "Turkey Fryers" and similar type of appliances in the standards' scope. It was also commented that all appliances covered by this standard were defined as attended consumers' products. Regarding a temperature limiting control for the oil, the joint subcommittee felt that it could then apply to all other non-thermostatically controlled cooking appliances using hot oil for cooking. In addition, it was commented that the draft standard incorporates extensive marking and instructions requirements on how to handle and operate these appliances. It was further commented that potential hazardous situations described in Mr. Jones comments could apply to gas stoves, and other similar type appliances where consumers are exposed to high pot/container temperatures. The subcommittee also felt that it was much better to include and leave turkey fryers within the standard's scope than not to have a standard for these appliances. It was also noted that both parent committees reviewed and approved the Specialty Cooking Appliance standard including its proposed scope".

A letter from Dan Restelli of UL summarizing UL's concerns regarding adopted standards coverage for gas fired turkey fryers in ANSI/CSA harmonized standard for Outdoor Specialty Cooking Appliances, ANSI Z21.89/CSA 1.18 was faxed to CSA on July 17, 2002. A copy of the UL letter is presented in Attachment 1 to this item.

| Post-it™ Fax Note 7671E | Date Oct 4, 2002 | # of pages ▸ 16 |
|---|---|---|
| To Hammad Malik | From Senka Krsikapa | |
| Co./Dept. CPSC | Co. CSA | |
| Phone # | Phone # 416 747-2508 | |
| Fax # 301 504-0533 | Fax # | |

ITEM 11
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**A LETTER FROM UL REGARDING ADOPTED STANDARDS COVERAGE FOR TURKEY FRYERS**

Action Requested:

Review for information and potential action.

Background:

In October 2001, proposed harmonized standard on Outdoor Cooking Specialty Gas Appliances, Z21.89/CSA 1.18 was submitted by letter ballot to the Z21/83 Committee for approval. The standard was approved with no negative comments. An affirmative vote with comments was submitted by Mr. Harry Jones of UL. Mr. Jones' comments were reviewed by the Outdoor Cooking joint subcommittee at their February 2002 meeting. The following is an abstract from February 2002 minutes:

"The subcommittee reviewed Mr. Jones' comment and rejected his proposed elimination of "Turkey Fryers" from the scope of standard for Specialty Cooking Appliances, Z21.89/CSA 1.18. It was commented that "Turkey Fryers" had initiated a development of this standard and that the intent was to cover "Turkey Fryers" and similar type of appliances in the standards' scope. It was also commented that all appliances covered by this standard were defined as attended consumers' products. Regarding a temperature limiting control for the oil, the joint subcommittee felt that it could then apply to all other non-thermostatically controlled cooking appliances using hot oil for cooking. In addition, it was commented that the draft standard incorporates extensive marking and instructions requirements on how to handle and operate these appliances. It was further commented that potential hazardous situations described in Mr. Jones comments could apply to gas stoves, and other similar type appliances where consumers are exposed to high pot/container temperatures. The subcommittee also felt that it was much better to include and leave turkey fryers within the standard's scope than not to have a standard for these appliances. It was also noted that both parent committees reviewed and approved the Specialty Cooking Appliance standard including its proposed scope".

A letter from Dan Restelli of UL summarizing UL's concerns regarding adopted standards coverage for gas fired turkey fryers in ANSI/CSA harmonized standard for Outdoor Specialty Cooking Appliances, ANSI Z21.89/CSA 1.18 was faxed to CSA on July 17, 2002. A copy of the UL letter is presented in Attachment 1 to this item.

As a result of several inquiries regarding the possibility of certifying these appliances, UL has undertaken research to determine potential hazards of turkey fryers and if they have been adequately addressed by the ANSI Z21.89 standard. This research was done on a variety of models purchased at local retail outlets, representing designs of at least four different manufacturers. It should be noted that none of these turkey fryers were certified by any agency. Based on this study, UL has decided that we will not List these devices in their present design. Additionally, it is our opinion the ANSI Z21.89 standard does not adequately address the hazards associated with these appliances.

We have the following general comments regarding the safety of these products:

- Turkey fryers as currently on the market require a high level of careful and continuous user monitoring. It is our opinion that we cannot rely this much on "human performance." Users should not be asked to compensate for hazards that can be readily eliminated or controlled by design.

- Turkey fryers should be evaluated as a "system" rather than an assembly of components. The system should incorporate safety devices, such as over temperature limiting and possibly other control devices, to reduce the risk of hazards.

- Most of the turkey fryers purchased had very limited instructions concerning safe operation of the system. In a number of cases, the instructions were located on the box that is likely to be discarded after purchase and assembly.

  Even though the ANSI Z21.89 standard has some requirements concerning required instructions to be provided, no instructions are required regarding the proper operation of the turkey fryers, such as:

  - How to determine the proper amount of oil to use;
  - Importance of properly preparing food (thawed, dry, etc.)
  - What to do in case of fire (Call 911 or the fire department)

  It is important that a set of detailed safety instructions be developed and required for these devices.

- None of the samples purchased had any markings on the turkey fryers themselves. The ANSI Z21.89 standard does not have any required markings regarding the safe operation of turkey fryers. We need to develop a logical set of warning markings and use instructions that are for the most part on the product and not buried in an instruction manual. Required markings should include, at a minimum:

  - Warnings regarding Fire Risk

In UL's testing, the propane tank was located remotely to prevent possible explosion. However, in most cases, the propane hose burned through very quickly after ignition of the fire. We have received reports of fires where the propane tank vented, thereby spreading the fire within one minute of the initial ignition of the fire.

Additionally, we have received at least one report of the aluminum pot provided with a fryer failing, thereby spilling the oil and spreading the fire. Unlike ANSI Z83.11 that requires cooking vessels to be constructed of steel of a minimum thickness, ANSI Z21.89 does not have any requirements regarding the construction of these vessels.

We are bringing these items to your attention so that immediate steps can be taken to develop necessary requirements addressing these concerns for inclusion into the ANSI Z21.89 Standard for Outdoor Cooking Specialty Gas Appliances. UL is willing to contribute in any manner possible to assist in this standard's development process.

As noted above in this letter, there are significant hazards associated with the majority of turkey fryers currently on the market. Due to the increased popularity of these products, we felt that to fulfill our public safety mission, it was essential that we issue a news package addressing these potential hazards.

Further, UL has made a decision that we will not certify turkey fryers with our UL Mark unless the above issues are adequately addressed. Lives were at risk. We may also recommend additional requirements as our research continues, and the possibility exists that we may choose to never list these products if the inherent hazards associated with their use by consumers cannot be addressed.

Included with this letter is a link to UL's Website where you can download a video news package that UL has distributed to national and local broadcast and print media to alert consumers to the dangers associated with turkey fryer use. The video shows potentially horrific results due to tip-over testing, the consequences of over-filling and placing a partially frozen turkey into the cooking pot, lack of thermostat controls on the units and burn hazards to which users may be exposed if they touch the cooking pot, lid and pot handles. The video was distributed to the media on Thursday, June 27. If you would like a VHS copy of this tape, please let us know. You can access the video package by visiting, www.ul.com/turkeyfryers/

UL recommends that consumers not use a turkey fryer. However, we do realize that some consumers will not discontinue use. Therefore, we included in the news video tips/instructions for their safer use.

We will be happy to discuss this matter further with you or any other committee member. Please let us know how we can assist you in our mutual goal of public safety.

Very truly yours,

Daniel P. Restelli
Sr. Staff Engineer
847-664-2089
E-mail – daniel.p.restelli@us.ul.com

Cc:

Mr. Daryl L. Hosler
Chairman, Z21/83 Accredited Standards Committee
1919 South State College Blvd., SC8389
Anaheim, CA 92806-6114

Mr. Allen J. Callahan
Adm. Secy., Z21/83 Accredited Standards Committee
8501 E. Pleasant Valley Rd.
Cleveland, OH 44131-5516

# Attachment 10

ITEM 12
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**PROPOSED REVISIONS TO ANSI Z21.58/CSA 1.6, SUBMITTED BY MR. JOLLAY**

Action Requested:

Consider adoption of proposed revisions to ANSI Z21.58/CSA 1.6 standard as submitted by Mr. Jolley for distribution for Public Review and Comment.

Background:

By letter dated June 26, 2002, Mr. Jolley requested that outdoor cooking joint TAG consider proposed revisions to sections 1.6.15 and 1.6.16 of ANSI Z21.58/CSA 1.6 standard. Proposed revisions are presented in Attachment 1 to this item.

A Division of W.C. Bradley Co.

Attachment 1 to Item 12
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

June 26, 2002

Senka Krsikapa
Canadian Standards Association
178 Rexdale Blvd.
Toronto, Ontario
M9W 1R3

RE: Agenda Item for Next Joint Subcommittee of Outdoor Cooking and Illumination

Dear Ms. Krsikapa

Please include the attached proposed change to ANSI Z21.58-CSA1.16 in the agenda for the next meeting.

Sincerely

Jim Jollay
Staff Engineer – Certification and Compliance

# STANDARDS PROPOSALS

MAIL TO: Senka Krfikapa
178 Rexdale Blvd. Toronto, Ont. M9W 1R3
FAX: 416-747-2473
eMail: senka.krsikapa@csa.ca

DATE: June 24, 2002 NAME: Jim Jollay
ADDRESS: P.O. Box 1240 1442 Belfast Ave. Columbus, GA 31904

TELEPHONE NUMBER: (706) 571-7000 Ext. 7326

REPRESENTING (Please indicate organization, company or self): Char-Broil

1. a) Title of Standard:
Outdoor Cooking Gas Appliance ANSI Z21.58b – CGA 1.6b 2002

b) Section/Paragraph Number and Title, (Pg. No.): 1.6.15 and 1.6.16

2. Proposal Recommends: (check one)

••• New Text ••• Revised Text ••• Deleted Text
•x•• New Text •x• Revised Text •••

3. Proposal (to include proposed new or revised wording, or identification of wording to be deleted):

1.6.15 ~~Cylinders shall not be exposed to temperatures exceeding 125°F (51.5°C) and~~ Cylinder valves shall not ~~be exposed to temperatures exceeding~~ exceed 130°F (54.5°C) when the outdoor cooking gas appliance is subjected to the tests specified under 2.20, Wall and Floor Temperatures.

1.6.16 The gas pressure in the LP-gas cylinder shall ~~not increase by more than 50 psi (344.7 kPa)~~ and the average temperature of the cylinder, measured in the vapor space by 4 evenly spaced thermocouples, not exceed 125°F (51.5°C) when the outdoor cooking gas appliance is operated as specified in 2.20, Wall and Floor Temperatures and for a period of 30 minutes after the end of the test.

4. Statement of Rationale for Proposal:

*Rational: The current 1.6.15 is from the Canadian standard prior to harmonization. While the valve limit of 130°F is based on the UL standard for that component the cylinder temperature is not. The change restates the valve limit in that the valve temperature is not to exceed the limit that is more precise then be exposed to a temperature. The temperature limit of 125°F appears to come from B149.2 Propane Storage and Handling Code. Section 5.5.1.5 states that cylinder are not to be exposed to temperatures in excess of 125°F when in storage. For this application the cylinder is not in storage. The laboratories have interpreted the requirement that the cylinder body should not exceed 125°F at any location. Even when spot on the cylinder does exceed the temperature a pressure drop could occur. The proposed change does not remove the 125°F limit but only evaluates it on the average over the vapor space and not just one hot spot. The pressure increase requirement is not changed and is in fact returned to the 30 minute after the completion of the requirement that was part of the 1993 standard. This allows for the cylinder pressure to recover once the appliance is turned off.*

5. ••• This proposal is original material.
•x•

... This proposal is not original material, its source (if known) is as
. . follows:

(Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought, or research and to the best of his/her knowledge, is not copied from another source.)

I agree to give full rights, including rights of copyright, in this proposal and I understand that I acquire no rights in any publication in which this Proposal is used in its original form or another similar analogous form.

Signature

PLEASE USE SEPARATE FORM FOR EACH PROPOSAL

FOR OFFICE USE ONLY: Date Received: _____

# Attachment 11

ITEM 13
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**REVIEW OF A PROPOSAL/REPORT FROM THE TASK FORCE ON INCANDESCENT PARTICLES**

Action Requested:

Review and consider adopting for public review and comment proposed revisions recommended by a task force on Incandescent particles.

Background:

At the February 2002 joint subcommittee meeting, the subcommittee reviewed and considered Mr. Jollay's proposed revisions to sections 1.15.5 and 2.17 of the Z21.58/CGA 1.6 standard for Outdoor Cooking Appliances. The subcommittee also addressed a similar comment received from Mr. Don Smith.

The subcommittee agreed in principle with Mr. Jollay's proposal and a comment from Mr. Smith. However, there were several identified issues/variables (determined percentage of fat for hamburgers, distribution of briquettes, shape and total coverage of a grill plate, etc) that needed more attention and further evaluation. It was moved and duly seconded at the meeting to form a task force to further evaluate Mr. Jollay's proposal and draft proposed revisions for consideration at the next meeting. The task force included: A. Gafford (Chair), J. Jollay, D. Slone, K. Sharer, S. Gentry, C. Childers, S. Hatfield, T. Freeland, C. Radcliffe, G. Brake and S. McCarthy.

A report/recommendation from the task force is presented in Attachment 1 to this item.

Attachment 1 to Item 13
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

June 28, 2002

Senka Krsikapa
CSA International
178 Rexdale Blvd
Etobicoke, Ontario
M9W 1R3

RE: Incandescent Particle Task Force Recommendation, Joint Subcommittee Outdoor Cooking and Illumination

Dear Ms. Krsikapa

Attached is the recommendation from the task force formed at the last committee meeting. Alex Gafford was appointed chairman of this task force but assigned the project to myself. The committee held a conference call on May 17 and then conducted the remaining activities by e-mail. Please but this on the agenda for the next sub-committee meeting.

Jim Jollay
Staff Engineer

TAG on Outdoor Cooking
September 24-25, 2002 2-2096
ode (1)

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http://www.ul.com

**Underwriters Laboratories Inc.®**
July 16, 2002

Mr. Tony Cautillo
Canadian Standards Association (CSA)
5060 Spectrum Way, Suite 100,
Mississauga, ON L4W 5N6
CANADA

Re: ANSI Z21.89-CSA1.18 as applicable to gas-fired Turkey Fryers

Dear Mr. Cautillo:

In October 2001, the Z21.89-CSA 1.18 Standard for Outdoor Cooking Specialty Gas Appliances was submitted by letter ballot to the Z21/83 Standards Committee for approval. This standard was subsequently approved as an ANSI Standard and published in April 2002.

It appears that Gas-Fired Turkey Fryers are to be included within the scope of Z21.89 that covers "Fryer/Boiler." UL's response in Mr. Jones' letter ballot dated November 20, 2001, specifically and unequivocally expressed our concerns regarding this standard if it was to be applicable to Turkey Fryers. In summary, the letter stated:

1. There is no temperature regulating or limiting control for this consumer product deep fat fryer, which may lead to ignition of the cooking oil, especially if there is no food product in the pot, the unit is firing and there is a low oil level. A test should be required to verify that oil bath temperatures can not approach the auto-ignition temperature, perhaps 550-650°F. A maximum value of approx. 475°F is a typical limit. It would be appropriate to use the deep fat fryer control and temperature requirements of Z83.11 (Commercial Gas Fired Cooking Equipment).

2. The extremely high cooking temperature (325-350°F) of these appliances exposes consumers to an undue risk for burns from exposure to the cooking pot and the cooking oil, especially children who might be unsupervised, even momentarily. If accidentally bumped and overturned, hot cooking oil would splash, causing burn hazards.

# STANDARDS PROPOSALS

MAIL TO: Senka Krsikapa
178 Rexdale Blvd. Toronto, Ont. M9W 1R3
FAX: 416-747-2473
eMail: senka.krsikapa@csa.ca

DATE: June 28, 2002 NAME: Jim Jollay

ADDRESS: P.O. Box 1240 Columbus, GA 31902

TELEPHONE NUMBER: (706) 571-7000 Ext. 7326

REPRESENTING (Please indicate organization, company or self): Char-Broil

1. a) Title of Standard:
Outdoor Cooking Gas Appliance ANSI Z21.58b – CGA 1.6b - 2002

b) Section/Paragraph Number and Title, (Pg. No.): 1.15.5 and 1.3.9 , 2.18.5 (New items)

2. Proposal Recommends: (check one)

••• New Text ••• Revised Text •x• Deleted Text
•x• New Text • • Revised Text • •

3. Proposal (to include proposed new or revised wording, or identification of wording to be deleted):

1.15.5 ~~The housing of a outdoor cooking gas appliance below the burner shall be constructed to prevent the dropping of incandescent particles under normal operation.~~

1.3.9 The housing of an outdoor cooking gas appliance shall be constructed to prevent the dropping of incandescent particles under normal operation. (See section 2.18.5)

2.18.5 The housing of an outdoor cooking gas appliance shall be evaluated for incandescent particles as follows.

Method of Test

For the purpose of this test, the housing is defined as the structure that encloses the burner including any grease collection system when provided. Components which are part of normal appliance operation are to be in place during this evaluation except for cooking grate(s) and those parts that are randomly placed (such as lava rock and briquettes).

A vertical plane from any edge of the burner(s) or burner shield(s), or any edge of an opening in a heat distribution plate(s), shall not pass through an opening in the bottom of the appliance housing. A plane which is obstructed by a grease tray is acceptable (See Figure XX).

4. Statement of Rationale for Proposal:

This proposed revision is a result of a task force established during the February 2002 sub-committee meeting. The task force was established due to a proposed change to section 1.15.5 rejected at the meeting.

The original proposal was made due to the opinion that the current wording is confusing. The task force held a telephone conference call on May 17, 2002 and the key points of that call follow. Some task force members felt that there was no problem with wording and no change needed. Others felt it could be improved. A point made was that the current location in the standard in section 1.15 does not make it clear that this even applies to the main portion of the grill. For this reason one change proposed is to move the requirement to section 1.3 covering the appliance structure. The original concern was with the wording "below the burner" which was though to be restrictive and unclear. Simply removing the "below the burner" was though to make the requirement even more vague. Another concern expressed was with the meaning of the word "housing". Task force discussion also covered how placement of radiant material such as lava rock, briquettes, etc. should be handled. One task force member expressed concern that the requirement could not easily be understood. A sketch was recommended.

Based on the discussion of the committee an initial proposal was make including a sketch. The proposal above is the result of the comments received on this proposal.

The changes are:

1 Move the requirement form section 1.15 to 1.3. This makes it clearer that the requirement is for the main part of the grill and not just the top burner.

2 The wording "below the burner " was deleted.

3 A section is added 2.18 which defines how to evaluate the appliance for incandescent particles.

5. ... This proposal is original material.
.X.

... This proposal is not original material, its source (if known) is as
. . follows:

(Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought, or research and to the best of his/her knowledge, is not copied from another source.)

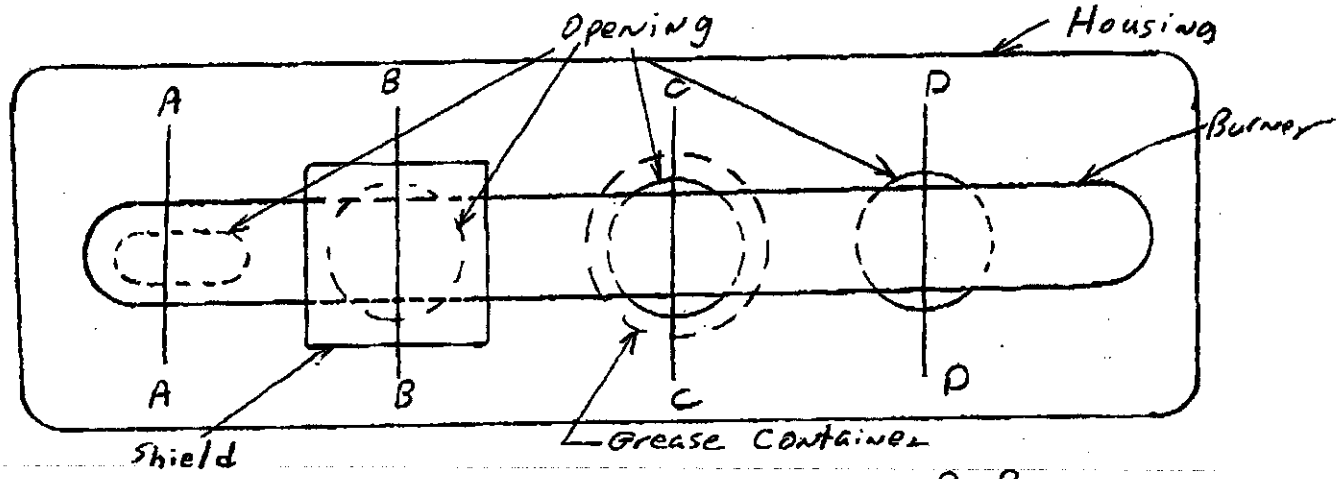
I agree to give full rights, including rights of copyright, in this proposal and I understand that I acquire no rights in any publication in which this Proposal is used in its original form or another similar analogous form.

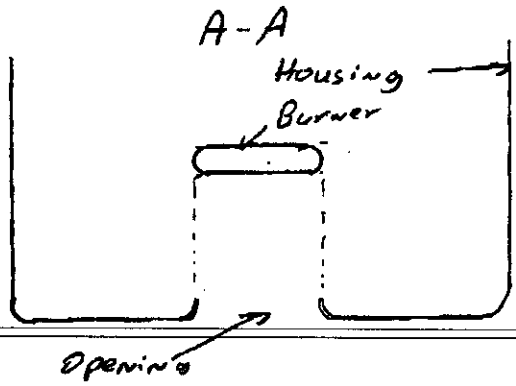
Signature
Jim Jollay

PLEASE USE SEPARATE FORM FOR EACH PROPOSAL

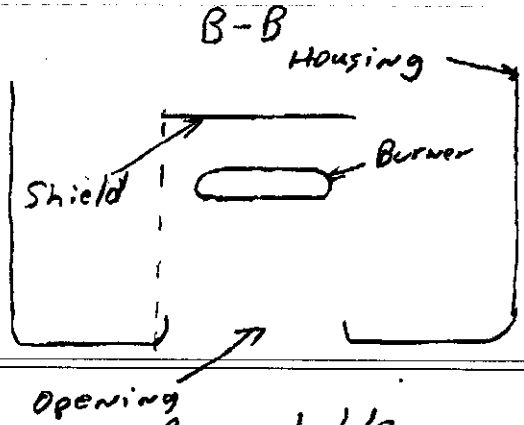
FOR OFFICE USE ONLY: Date Received: _____

Rationale




Acceptable

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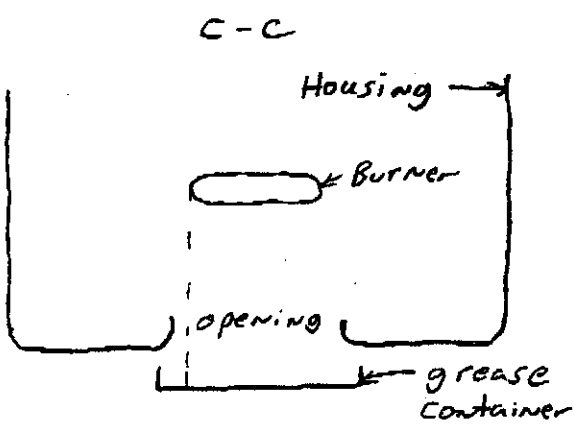


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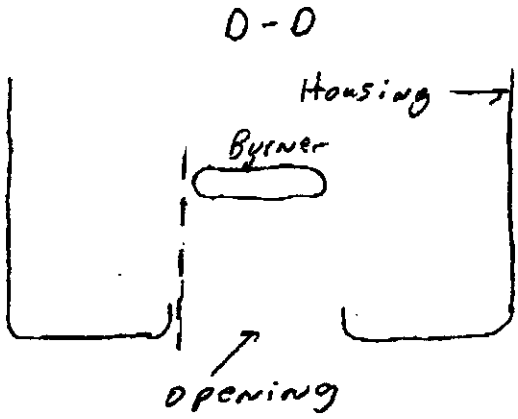


Not Acceptable

Figure XX. Incandescant Particle Acceptability ILLUSTRATION

ITEM 14
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

# REVIEW OF UL'S REQUEST FOR RATIONALE FOR EXCLUSION OF RV APPLICATIONS FROM HARMONIZED OUTDOOR COOKING STANDARDS

Action Requested

Review the UL request for rationale for exclusion of RV applications from harmonized outdoor cooking standards.

Background

On July 8, 2002, the following e-mail from Mr. John Wyer of UL was forwarded to CSA's project manager inquiring about a reason that Z21.58/CSA 1.6 and Z21.89/CSA 1.18 harmonized standards specifically exclude mounting on a RV.

-----Original Message-----
**From:** John.F.Wyer@us.ul.com [mailto:John.F.Wyer@us.ul.com]
**Sent:** July 8, 2002 1:15 PM
**To:** tony.cautillo@csa-international.org
**Subject:** Z21.58, & Z21.89

Is there a reason that Z21.58, & Z21.89 specifically excludes mounting on a RV ???

# Attachment 12

# Attachment 13

Attachment 1 to ITEM 15
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

TO: MEMBERS OF CSA/Z21 JOINT SUBCOMMITTEE ON OUTDOOR COOKING AND ILLUMINATING APPLIANCES

FROM: Keith Thiessen
Extreme Mfg. Ltd.
RR#2 Wetaskiwin, Alberta, Canada
T9A-1W9
1-780-352-4419
E-mail lthiesse@glink2.com

Dear Committee Members,

The following proposal is a request to change the existing Z21.58/CGA1.6 standard for Outdoor Cooking Gas Appliances to encompass an RV Mounted Outdoor Cooking Gas Appliance. This information is provided as a follow up from our letter to the committee dated February 4th, 2002 (attached).

The following proposed changes to the existing Z21.58/CGA1.6 standard are intended to allow for an Outdoor Cooking Gas Appliance in conjunction with a mount, to be attached to the exterior of a Recreational Vehicle. The purpose is to transport with the RV, as well as supply a usable stable Outdoor Cooking Gas Appliance in conjunction with the RV's designed purpose to be allowed to be submitted for a testing program under an addenda Z21.58/CGA1.6 standard as an, "RV Mounted Outdoor Cooking Gas Appliance."

The reason for approaching the committee with this Z21.58/CGA1.6 proposed standard request change comes as a result of a denied testing program, as it relates to a RV Mounted Outdoor Cooking Gas Appliance, requested from Extreme Mfg. Ltd. to both CSA and UL Testing associations. The denied reason being that this product does not comply within the scope of an existing standard. What follows is the rationale by which we feel eliminates an "RV Mounted Outdoor Cooking Gas Appliance" from existing standards. As well as the rationale why an "RV Mounted Outdoor Cooking Gas Appliance" should be encompassed by the Z21.58/CGA1.6 standard.

The Z21.58/CGA1.6 standard Part IV Definitions state:

***Outdoor Cooking Gas Appliance.*** *A gas-fired cooking appliance for outdoor use only and provided with a means of support by the manufacturer. The appliance may be either portable or stationary.*

We strongly feel that a RV Mounted Outdoor Cooking Gas Appliance falls within the scope of this definition. The Outdoor Cooking Gas Appliance being proposed is intended and designed for outdoor use only. The means of support will be the mount, supplied with the Outdoor Cooking Gas Appliance as a complete unit.

The definition also states that "The appliance may be either portable or stationary." The RV Mounted Outdoor Cooking Gas Appliance complies with this also. Mounting the unit to the exterior of an RV makes it stationary to the RV. The unit could also be considered portable as it relates to the RV, as the RV's designed intention is to be portable. In our opinion this application of an RV Mounted Outdoor Cooking Gas Appliance meets both criteria of this statement and complies with all aspects of the definition of an Outdoor Cooking Gas Appliance.
We have also researched the possibility of having this RV Mounted Outdoor Cooking Gas Appliance submitted for approval under the Z21.57 Recreational Vehicle Cooking Gas Appliances. This would be a logical approach, being as the standard is written for Recreational Vehicle Cooking Gas Appliances.

The Z21.57 Part IV Definitions state:
***Recreational Vehicle Cooking Gas Appliance.*** *A gas appliance for domestic food preparation, providing at least one function of top or surface cooking, oven cooking or broiling. It has design features to enable it to meet the special conditions connected with use in a recreational vehicle.*

The word "in" used in the last statement, "with use in a recreational vehicle" as defined in the, "Webster's II New Riverside Dictionary" means "within the bounds of." Due to the lack of the word "outdoor" within the title of the definition for **"Recreational Vehicle Cooking Gas Appliance"** it is of our opinion that this standard is designed around the concept that the gas appliances to which it was written for are to be installed and used within the confines of the RV itself, not the outside of it.

It is with this rational that we feel that a RV Mounted Outdoor Cooking Gas Appliance is not suitable to be submitted for testing under the Z21.57 Recreational Vehicle Cooking Gas Appliance.

It has also been suggested that an entirely new standard be drafted for a RV Mounted Outdoor Cooking Gas Appliance. We feel that this approach is totally unnecessary for the following reasons.

1. The Outdoor Cooking Gas Appliance we are proposing to use in a RV Mounted Outdoor Cooking Gas Appliance, is essentially the same unit that currently exists, which are approved for either stationary or portable use under the current Z21.58/CGA1.6 standard. These portable units are currently being designed, manufactured, tested, approved, marketed and sold for use by RV consumers for their recreational vehicle outdoor cooking gas appliance requirements.

2. These approved portable Outdoor Cooking Gas Appliances travel in or on the same RV's, to and from the same locations, for the same use, that we have been denied our application for testing approval under the Z21.58/CGA1.6 standard.

3. With proper addenda's to the existing Z21.58/CGA1.6 standard we feel that a RV Mounted Outdoor Cooking Gas Appliance can be safely designed, manufactured, tested and supplied to offer the RV consumer market place another safe alternative.

It is not our intent to discredit or demean any existing Portable Outdoor Cooking Gas Appliance manufacturer or standard to which they are associated with. We feel that they are quality safe products when used within the scope to which they are designed, approved and used for. Our purpose is to only show this committee that an RV Mounted Outdoor Cooking Gas Appliance deserves to be included with these products because it is essentially the same product with enhanced features. We feel the RV Mounted Outdoor Cooking Gas Appliance will reduce the risk of consumers using existing portable Outdoor Cooking Gas Appliances out of the scope to which they are approved. By this we mean that consumers may use the existing portable Outdoor Cooking Gas Appliance incorrectly due to the environments they are located in with their RV. I.e.: unleveled surface, portable located too close to the RV, etc.

*Proposed Changes to Existing Standard:*

- *Proposal #1*

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances - Part IV Definitions:

**New (Additional) Text:**

RV MOUNTED OUTDOOR COOKING GAS APPLIANCE . A gas-fired cooking appliance for outdoor use only and provided with a means of support through a mounting system by the manufacturer, used to attach, transport and support the complete unit to the exterior of a recreational vehicle.

**Rationale for Proposed Changes:**

We believe that this appliance is somewhat of a hybrid between the stationary and portable statement in the OUTDOOR COOKING GAS APPLIANCE definition. This appliance is for specific use outdoors in conjunction with an RV, there may be some confusion associated with it when researching applicable standards in the future. Therefor we feel it necessary to clarify it in the definitions of this standard to which it will be associated.

- *Proposal #2*

**Present Text:**

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances
*Part 1 Construction*
*1.1 Scope*
*1.1.2 This standard does not apply to outdoor cooking gas appliances for installation in or on recreational vehicles and/or boats.*

**Revised Text:**

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances
Part 1 Construction
1.1 Scope
1.1.2 This standard does not apply to outdoor cooking gas appliances for installation in or on boats, or within recreational vehicles.

**Statement of Rationale Proposal:**

Changing the text in this manner would allow for RV Attached Outdoor Cooking Gas Appliances to be allowed within the scope of Z21.58/CGA1.6. Without compromising the idea and limitations of its original statement. It would allow for continued protection of the existing Z21.58/CGA1.6 standard written to exclude boats and interior recreational vehicles cooking gas appliances. To which other existing standards pertain.

- *Proposal #3*

**Present Text:**

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances
*Part 1 Construction*
*1.3 Outdoor Cooking Gas Appliance Structures*
*1.3.7 An outdoor cooking gas appliance shall be constructed so it cannot be tipped by any reasonable pressure. This shall not apply to broilers which are provided with means, including necessary screws, bolts or both, and instructions, for attaching them to the floor or mounting their bases in the ground. (see. 2.18.4 of 2.18, appliance structure)*

**Revised Text:**

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances
Part 1 Construction
1.3 Outdoor Cooking Gas Appliance Structures
1.3.7 An outdoor cooking gas appliance shall be constructed so it cannot be tipped by any reasonable pressure. This shall not apply to broilers or RV Mounted Outdoor Cooking Gas

Appliances which are provided with means, including necessary screws, bolts or both, and instructions, for attaching them to the floor or mounting their bases in the ground or the exterior structure of an RV to which it was designed for. (See. 2.18.4 of 2.18, appliance structure)

**Statement of Rationale Proposal:**

The text revision on this item needs to be changed because as it reads a RV Mounted Outdoor Cooking Gas Appliances would not be relevant to it. In the same way that the floor or ground mounted broilers are not, and excluded from it. Because the Outdoor Cooking Gas Appliance is mounted to the RV through the manufactures provided means the unit gains its stability through the RV and because of the RV's designed usage, as to be leveled and stabilized when occupied. The RV complements the stability of the RV Mounted Outdoor Cooking Gas Appliance attached to it.

- *Proposal #4*

**Present Text:**

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances
*Part #2 Performance*
*2.18 Outdoor Cooking Gas Appliance Structure*
*2.18.4 An outdoor cooking gas appliance shall be constructed so it cannot be tipped by any reasonable pressure. This shall not apply to broilers which are provided with means, including necessary screws, bolts or both, and instructions, for attaching them to the floor or mounting their bases in the ground.*

***Method of Test***

*With all lids or covers in the closed position, The outdoor cooking gas appliance shall be tipped in any direction at an angle of 15 degrees (0.26 rad) from the vertical and shall not tip over when released.*

*An outdoor cooking gas appliance for connection to a self-contained LP-gas supply system shall comply with this test with and without a full cylinder in place.*

**Revised Text:**

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances
Part #2 Performance
2.18 Outdoor Cooking Gas Appliance Structure
2.18.4 An outdoor cooking gas appliance shall be constructed so it cannot be tipped by any reasonable pressure. This shall not apply to broilers or RV Mounted Outdoor Cooking Gas Appliances which are provided with means, including necessary screws, bolts or both, and

instructions, for attaching them to the floor or mounting their bases in the ground or the exterior structure of an RV to which it was designed for.

**Method of Test**

With all lids or covers in the closed position, The outdoor cooking gas appliance shall be tipped in any direction at an angle of 15 degrees (0.26 rad) from the vertical and shall not tip over when released.

An outdoor cooking gas appliance for connection to a self-contained LP-gas supply system shall comply with this test with and without a full cylinder in place.

**Statement of Rationale Proposal:**

Due to the proposed changes of 1.3.7 of Z21.58/CGA1.6 within this document, it makes reference to 2.18.4 of the same standard. This statement must also be changed in order to have symmetry within the Z21.58/CGA1.6 standard, if this committee approves the proposed changes to 1.3.7.

- *Proposal #5*

**Present Text:**

Z21.58/CGA1.6 Outdoor Cooking Gas Appliances
*Part 1 Construction*
*1.3 Outdoor Cooking Gas Appliance Structure*

**New (Additional) Text:**

1.3.9 The construction of a RV Mounted Outdoor Cooking Gas Appliance shall be constructed with.

a) Means of ensuring proper manufacturer recommended side and floor/ground clearances while the gas appliance is in use, as it relates to the RV to which it is to be installed. This can be achieved through the means of attaching, (mounting/support system) the Outdoor Cooking Gas Appliance to the RV. Also within the detailed mounting instructions supplied with the complete RV Outdoor Cooking Gas Appliance. (See 2.20 Wall and Floor Temperatures, 1.22 Instructions)

b) Means to ensure that the unit will remain stable, while in use or transport, so as not to become dislodged or unstable as it relates to the RV to which it is attached.

c) Means that will be supplied with the unit, to totally encompass the Outdoor Cooking Gas Appliance portion of the RV Mounted Outdoor Cooking Gas Appliance. Portions of the attaching means/mount may be allowed to remain uncovered to facilitate a proper

fit. It shall be designed to be removable and also to serve as a cover for the unit during storage and transport. It shall also be designed to protect the Outdoor Cooking Gas Appliance portion of the unit against normal outside weather and road debris associated with RV use. It shall be included in detail instructions, that this cover is to be install before transport or storage and to be considered part of the unit. (see 1.22 Instructions)

**Statement of Rationale Proposal:**

1.3.9 This statement needs to be added in order to deal with specific items that would only be applicable to a RV Mounted Outdoor Cooking Gas Appliance design

1.3.9 a) Because it is up to the end user of an Outdoor Cooking Gas Appliance to maintain proper manufacturer recommended side clearances while in use (position the appliance properly) the manufacturer needs to build in a means as to control the floor recommended clearances (stands, carts or legs). The designer/manufacture/installer of a RV Mounted Outdoor Cooking Gas Appliance would have to cope with the side and ground min clearances and because of the nature of the unit being fixed to an RV, the manufacturer should deal with this through unit design and detailed installation instructions provided with the complete unit. Thus is the rationale for this statement to be added to the standard.

1.3.9 b) In order to successfully design a RV Mounted Outdoor Cooking Gas Appliance that will serve as a stable usable platform for an Outdoor Cooking Gas Appliance while at the same time control a safe recommended distance from the RV to which it is attached. Then also be capable of being transported safely with the RV. It is most likely that the RV Outdoor Cooking Gas Appliance will have more than one stable position. One for use of the Outdoor Cooking Gas Appliance, and one for transporting it in a safe position relative to the RV to which it is attached. We feel that this statement is necessary to ensure individual design stability and user safety. Without limiting possible future new design options for a RV Mounted Outdoor Cooking Gas Appliance. Which will obviously have to change and adapt to serve present and future RV designs, to which they are to be attached.

If the committee agrees with this statement but would require some sort of performance evaluation for individual RV Mounted Outdoor Cooking Gas Appliance design, we would recommend that this be left up to the discretion of the testing laboratory employed to approve or deny individual applications for the specific reason of not limiting future design possibilities.

1.3.9 c) This statement is also specific to RV Outdoor Cooking Gas Appliances. We believe that it is important to supply protection against normal weather, road residue and debris that would be associated with an RV Mounted Outdoor Cooking Gas Appliances. If this statement were to be included in the standard, then this means would ensure the required supply and usage to protect the unit as previously described.

*Possible Issues That May Arise Yet Not Specifically Identified within This Proposal*

*Transportation Induced Vibration:*

Vibration as a result of transportation of a RV Mounted Outdoor Gas Appliance is an issue we felt needed to be explored if this proposal was to be complete. How we approached this question was to try to be as logical as possible.

First we know there is a standard written and in place for Recreational Vehicle Cooking Gas Appliances Z21.57 which is written essentially for Attached Indoor Cooking Gas Appliances. Logically we felt that we should adhere to any vibration test method within this standard applying to Cooking Gas Appliances. Since the appliances work basically the same, using the same type of fuel, are both meant to be mounted to the RV structure and are subject to the exact same vehicle induced vibration. Our research into Z21.57 however uncovered no specific test or performance criteria regarding vibration on Cooking Gas Appliances.

Then we looked at what other products were similar and approved in the market place that would encounter the same type of use that a RV Mounted Outdoor Cooking Gas Appliance would. We felt that a Portable Outdoor Cooking Gas Appliance would best fit the same use requirements as we have previously discussed in this proposal document. Our research into the Z21.58/CGA1.6 standard, to which Portable Outdoor Cooking Gas Appliances are approve under also uncovered no specific test or performance criteria regarding vibration on Cooking Gas Appliances.

From this we inferred that vibration from being a portable Outdoor Cooking Gas Appliance or from being a Recreational Cooking Gas Appliance will produce no ill effects on cooking gas appliances or our proposed RV Mounted Outdoor Cooking Gas Appliance, that is not already covered under the existing Z21.58/CGA1.6 standard. For all of these units are used in, on or around the same vehicle.

However in the Z21.58/CGA1.6 Part 1 Construction

*1.1 Scope*

*1.2 General Construction And Assembly*

*1.2.10 Every part of an outdoor cooking gas appliance shall be secure against displacement and constructed to maintain a fixed relationship between essential parts under normal and reasonable conditions of handling and usage.*

*Parts not permanently secured shall be designed so they cannot be incorrectly assembled and cannot be improperly located when removed or replaced during cleaning or other servicing.*

Having the ability as a manufacturer to secure every part of a RV Mounted Outdoor Cooking Gas Appliance under this standard is extremely beneficial to building a consumer friendly safe product. We have full intentions of building a safe RV Mounted Outdoor Cooking Gas Appliance if we are successful in this proposed application.

*Safe and Acceptable Means of Handling Gas Supply and Hoses*

This is also an issue that we felt needed attention. We researched Z21.58/CGA1.6 in regards to how this issue should be addressed, as it would apply to a RV Mounted Outdoor Cooking Gas Appliance. We concluded from our research that all issues we had regarding gas supply and hoses are already effectively addressed within the existing standard.

The only issue that we felt needed to be addressed that could pose a possible problem with an RV Mounted Outdoor Cooking Gas Appliance was a way of protecting the gas hose assembly from damage when disconnected from the cylinder valve during storage or transportation of the unit with the RV. We felt strongly that this issue was covered in part by:

*Z21.58/CGA1.6 Outdoor Cooking Gas Appliances*
*Part 1 Construction*
*1.6 Self Contained LP-Gas Systems*
*1.6.12 Gas hose assemblies shall be of such length or otherwise restrained so that the regulator cannot drop to the ground when disconnected from the cylinder valve.*

We also would like to point out that in our Proposal #5, New Text
1.3.9 c) Means that will be supplied with the complete unit, to totally encompass the body of the Outdoor Cooking Gas Appliance portion of the RV Mounted Outdoor Cooking Gas Appliance. Portions of the attaching means/mount may be allowed to remain uncovered to facilitate a proper fit. It shall be designed to be removable and also to serve as a cover for the unit during storage and transport. Also to protect the Outdoor Cooking Gas Appliance portion of the unit against normal outside weather and road derby associated with RV use. It should also be included in detail instructions that this cover is to be install before transport or storage and to be considered part of the unit. (see 1.22 Instructions)

The addition of this cover as part of the RV Mounted Outdoor Cooking Gas Appliance could additionally be used to cover, protect and restrain this hose during storage and transport.

**Conclusion**
We have tried to be as informative and honest as possible in preparing this proposal. While trying to include all of what we feel relevant to it, without stating the obvious or what is covered already in the Z21.58/CGA1.6 standard in regards to a RV Mounted Outdoor Cooking Gas Appliance. I will be attending the September 23-25 2002 meeting in Toronto if further questions from the committee are required.

Thank you

Keith Thiessen
Extreme Manufacturing Limited
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T9A-1W9
1-780-352-4419
E-mail lthiesse@glink2.com

Attachment 2 to ITEM 15
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

February, 4th 2002

To: The North American Joint Subcommittee for
Outdoor Cooking and Illuminating Appliances

From: Keith Thiessen
Extreme Mfg. Ltd.
RR#2 Wetaskiwin Alberta, Canada,
T9A-1W9
E-mail lthiesse@glink2.com

Dear Committee Members:

I am writing to you in regards to the existing ANSI Z21.58 / CGA 1.6 BI-national standards relating to an outdoor gas cooking appliance for use in conjunction with a recreational vehicle. This is in effort to get some directional feedback from the committee on possible requirements they would be looking for to approve such an item under these standards or by other means. I would appreciate your feedback as to your requirements so that I may address your questions and concerns in a more detailed proposal at your next scheduled meeting.

For the past 3 years we have been developing an outdoor gas grill and mount, to be used in conjunction with a recreational vehicle. The grill we are proposing is a 40,000 Btu. gas grill attached to a mounting unit that will act as the support for use, as well as the support for safely transporting the unit with the RV to which it will be attached.

In complying with Canadian law and the US voluntary standards, we have been in contact and dealing for some time with CSA and UL Testing associations. Our request for an applicable safety-testing program has been returned with several different answers from both companies. The common end result been that "No BI-national standard exists to encompass the use of an outdoor cooking appliance with a recreational vehicle, therefore a testing program and possible product approval cannot be granted at this time."

I understand the non-compliance issues of this RV and outdoor cooking appliance, as to the ANSI Z21.58 / CGA1.6 in regards to the possible safety issues that would arise if this gas appliance was tested and approved under the fore mentioned standards as they are currently written. It is also our understanding as felt from both CSA and UL, that these are the only two existing standards that could encompass this proposed product, such that it is essentially, an outdoor cooking appliance.

In designing and testing our proposed product, we have adhered to the existing ANSI Z21.58 / CGA 1.6 standards as well as addressing the following safety issues we feel would arise with such a product not covered in the standard:

1. Transportation and vibration. How they would affect such a gas appliance and its components. As well as counter design measures and solutions that we have incorporated into it to deal with these affects.
2. Safe and acceptable means of handling the gas supply and hoses.
3. Methods of dealing with road residue and affects on the unit.
4. Building in mechanical devices to maintain safe distances from the RV during use. As well as a level, stable platform to operate from and transport safely with the RV.

The fact that is undeniable, and the reason that we have designed and are pursuing safety approvals for this RV gas grill, are that increasingly, individuals in the RV consumer market are purchasing, transporting and using outdoor gas grills that are approved under the ANSI Z21.58 / CGA1.6 with their RV. Using the outdoor gas grill in this way subjects them to all the physical fore mentioned issues for what the standards and testing programs are designed to eliminate. Approved gas grills are being used out of the scope for which they were designed, tested and approved for because nothing else exists in the market to meet consumer demand.

It has also been mentioned to me that existing "portable gas grills" are met to fill this void in the market. I tend to disagree with this due to the fact that they are also subjected to all the fore mentioned situations of use, and physical demands. What Extreme manufacturing is proposing is a product that takes these situations of use into account, and accommodates for them better than the existing products that are currently approved.

We feel that we have a RV gas Grill design that will satisfy existing safety issue and other possible safety issues that may arise out of the proposed use. We also feel that we have a design that will supply a consumer demand with an outdoor gas grill for their RV and will give them a safe alternative from using an existing grill out of the scope to which it was designed and tested to fulfill their outdoor cooking appliance requirements.

In conclusion I would ask for a discussion on this RV gas grill application. I would like a reply from the committee on the direction of procedure and questions concerning this RV gas grill, for Outdoor Cooking standards compliance. I would like to prepare a proposal to present to the Committee at their next scheduled meeting. I would also add that I would be willing to consider working with the committee in any way possible that can further the acceptance of this proposed product within an acceptable North American standard.

Thank You

Sincerely; Keith Thiessen
Extreme Mfg. Ltd.

# Attachment 14

ITEM 16
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**REVIEW PROPOSED REVISIONS TO SECTION 2.21 HANDLE TEMPERATURES OF ANSI Z21.89/CSA 1.18 STANDARD FOR SPECIALTY COOKING APPLIANCES**

Action Requested:
Review and consider adopting for public review and comment proposed revisions to Section 2.21 of Z21.89/CSA 1.18 harmonized standard as submitted by Mr. R. Fort of CSA International.

Background:

In a memo dated February 25, 2002, Mr. Rick Fort of CSA International, suggested that section 2.15 of the final draft of ANSI Z21.89/CSA 1.18 standard was in error. A proposal from Mr. Fort was reviewed at the February JSC meeting and generally supported by the JSC. However, there were few identified issues that needed to be better defined/addressed. These included:

- exemption of handle(s) of access cover(s) for Smokers
- proposed minimum letter height of ¼ inch (6.4 mm)
- lack of coverage for other appliance's compartments similar to smoking chambers that may need a marking indicating the word "HOT".

It was agreed at the meeting to inform Mr. Fort about the subcommittee's views and Mr. Fort was encouraged to submit another proposal for consideration by JSC at the next meeting that will address issues/concerns identified at the February 2002 meeting.

A revised proposal from R. Fort will be distributed to TAG members as soon as it becomes available.

# Attachment 15

ITEM 17
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

**REAFFIRMATION OF THE HARMONIZED STANDARD ON CYLINDER CONNECTION DEVICES, ANSI Z21.81-1997/CGA 6.25-M97.**

Action Requested

Consider recommending ANSI/CSA harmonized Standard for Cylinder Connection Devices, Z21.81-1997•CGA 6.25-M97, for reaffirmation.

Background

In accordance with American National Standards Institute (ANSI) procedures, Section 4.4, Maintenance of American National Standards, standards shall be kept current and relevant by means of timely revisions or reaffirmation. Each complete American National Standard (including supplement and addenda) shall be reaffirmed, revised or withdrawn.

Z21 and Z83 series standards that have not been printed as a new edition in five years are required to be recommended for reaffirmation or withdrawal. Staff has determined that action is needed by the subcommittee on the following standards:

The Standard for Cylinder Connection Devices comprises the base text Z21.81-1997•CGA 6.25-M97, and Addenda Z21.81a-1998•CGA 6.25a-M98. This standard was approved by ANSI on October 28, 1997. Following is the scope of the standard:

> Details test and examination criteria for Type I and Type II cylinder connection devices intended to connect the cylinder valve on portable LP-Gas containers to the inlet of the regulator on outdoor cooking gas appliances. These cylinder connection devices are intended for vapor withdrawal service only.

Z21/81-1997/CGA 6.25-M97 standard has been reaffirmed by CSA TC on February 12, 2002.

# Attachment 16

Attachment 1 to Item 18
Meeting of CSA/Z21 Joint
TAG on Outdoor Cooking
September 24-25, 2002

## OUTSTANDING ACTION ITEMS FROM ITEM 13 OF THE FEBURUARY 2002 MEETING

| No | Description | m/y | Action by | Comments | Status /JSC resolution |
|---|---|---|---|---|---|
| ~~1~~ | ~~In order not to make decisions that may conflict with the results of the appeal, the related proposals on Draft #2 were accepted but withheld.~~ | ~~11/97~~ | ~~JSC~~ | ~~Reviewed at the April 1998 meeting. A number of proposals brought forward at the 11/97 meeting were tabled, it was moved and duly seconded to reconvene the task force to address these proposals.~~<br>~~Note: see Attachment 13.1, Appendix A of the 11/97minutes, or the 11/97 agenda package~~ | ~~Included in the final draft.~~<br>~~No further action required.~~ |
| 2 | Adopted R&C:<br>a)~~Page6, 17-21b: 1.4.15 Gas hose assemblies on appliances with wheels~~<br>~~b)Page7, 25-30: A motion was defeated.... And a final motion to adopt the proposal for R&C was also carried.~~<br>~~c)Page28, 96a,b: 2.16, Last sentence, Regulator, Hose and Connection Fittings 140F (60C) not in the standard and method of test.~~<br>d)Page 34, the JSC recommended to forward Mercurous Nitrate versus 10 day moist ammonia air stress cracking test to the parent committees for consideration and direction, since this test would be applicable to a number of standards.<br>e) Page 36, a report presented in App D was adopted for R&C(on protective cap/apparatus). | 11/97 | | ~~a), b), c) these proposals have not been sent out for R&C (unclear wording in the 11/97 minutes)~~<br>~~Note: Copies of the relevant sections are presented in Attachment 13.2.~~<br>d) On proposed Mercury test, the manual valves JSC adopted the alternative test for public review and comment, Outdoor cooking subcommittee decided not to take further action on this issue at this time until the manual valve JSC has taken the test proposal through the standards development process (April 1998 minutes). | ~~a) c) in the final draft~~<br>d) Staff to update the JSC at the next meeting on the action taken by the Manual Valves JSC.<br>e) to be evaluated at the next meeting (action with S. McCarthy). |
| 3 | Item 4, comments on proposed revisions to Z21.81/CSA 6.25, (on a protective cap for Type I and cap or plug for Type II valves). | 04/98 | Mr. Gentry | It was decided to hold of submitting 1.2.1.7 for R&C until Mr. Gentry's proposals are considered. (see Attachment 13.3) | Susan McCarthy will prepare a proposal for the next meeting based on the information provided in earlier minutes. |

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| ~~4~~ | ~~Page 9, top of the page, A task force was reconvened during the meeting and the following proposal was adopted by the subcommittee for R&C:~~<br>~~"1.5.2. On appliances which do not incorporate wheels or other means of movement other than lifting, cylinder stabilization means....~~ | ~~04/98~~ | ~~Mr. Mell~~ | ~~Rationale to be provided by R. Mell.~~<br>~~Method of test to be developed.~~<br>~~(see Attachment 13.4)~~ | ~~Included in the final draft.~~<br>~~No further action required.~~ |
| ~~5~~ | ~~Page 9, reject proposed increases in permissible temperatures on handles and controls.~~<br>~~It was moved and duly seconded to submit the comment to the ANSI Z21.2 for consideration.~~ | ~~04/98~~ | | ~~The subcommittee to have the ANSI Z21.1 subcommittee provide the rationale for the temperatures selected. No further action was taken.~~<br>~~(see Attachment 13.5)~~ | ~~Included in the final draft.~~<br>~~No further action required.~~ |
| 6 | Page 14, Item 8, Burner Ignition Z21.58/CSA 1.6, moved and duly seconded to adopt the 1.13.1 for public R&C. | 04/98 | | Not sent for R&C<br>(see Attachment 13.6) | Moved and duly seconded to send this for R&C for inclusion in Z21.58/CGA 1.6 and Z21.89/CSA 1.18 standards.<br>Included in Appendix D and H of the Feb. 2002 minutes |
| 7 | Page 15, c) proposed revisions to Z21.58/CSA 1.6, 1.22.5 it was moved and duly seconded to adopt the proposal with the following revision to the proposal for public R&C. | 04/98 | | The wording of 1 and 2 unchanged in "b" addenda. Additional wording added under 3. (see clause1.23.5 of "b" addenda)<br>(see also Attachment 13.7) | Staff to check "b" addenda and take action to address this item (to revise it before published, or send for R&C. |
| 8 | Page 16, 1.22.8 (1.23.9, Addenda A) it was moved and duly seconded to adopt the proposal as revised as follows (for R&C??) | 04/98 | | Slightly modified in "b" Addenda.<br>(see Attachment 13.8) | Staff to check "b" addenda and take action to address this item (to revise it before published, or send for R&C. |
| 9 | Follow up on Item 4 from 1998 meeting, proposal for clause 1.2.1.7 of CGA 6.25: the subcommittee agreed that a cap would be required on Type I and II connection, S.Gentry was not comfortable with the proposed wording for this requirement and submitted revised verbage. (see App.B) of the minutes. | 02/99 | | No joint subcommittee action recorded in the minutes.<br>(see Attachment 13.9) | Will be addressed by Susan McCarthy along with item 3. |
| ~~10~~ | ~~The proposals on CSA 1.18 were revised by the subcommittee on 1.2.18 (Action???), editorial revision of 1.6.1 to read "on appliances with wheels." (not included in the standard).~~ | ~~02/99~~ | | ~~See Attachment 13.10.~~ | ~~Included in the final draft.~~<br>~~No further action required.~~ |
| 11 | Page 2, Item 7, a motion was made and duly seconded to delete the 3rd paragraph | 09/00 | | The third paragraph not deleted from draft standard | Alex Gafford to [illegible] |

| | | | | | |
|---|---|---|---|---|---|
| | of 2.9.3.3 which reads: "the test shall be repeated...." | 00 | | a draft standard.<br>(see Attachment 13.11) | reevaluate and propose change and rationale. |
| 12 | Item 13, page 4, Action by CSA staff: to accommodate into ANSI Z21.58/CSA 1.6 the editorial comments included in the fax from the JSC Chairman dated April 27, 2000 | 09/ 00 | Staff | Could not locate a copy of the fax. | Ron will check and inform staff if there are any outstanding items. |
| 13 | Item 14, Page 4, a motion was made and duly seconded to instruct CSA staff to conduct search on the history of Table II. | 09/ 00 | Staff | Some information provided at the April 2001 meeting (Action by Dennis Jones: To seek clarification from Mr. Ferlin on any additional information he would like to get and to advise CSA staff to conduct search if needed). Additional information presented in Attachment 13.13. | Addressed by S. McCarthy. D. Jones will provide Susan with required information. Susan will bring this item up at the next meeting, if needed. |
| ~~14~~ | ~~Item 16, Page 5, A motion was made and duly seconded to form a task force to review the existing labels in CGA 1.6 and present a proposal to the JSC. Mr. Childers was appointed as the Chairman. Other members included: S. Barkhouse, Tom Freeland, Steve Gentry, Ron Moll and Jeff Borton.~~ | ~~09/ 00~~ | ~~Mr. Childers~~ | ~~See Attachment 13.14~~ | ~~Addressed at the meeting.~~<br>~~No further action required.~~ |
| ~~15~~ | ~~Item 17, Page 6, A motion was made and duly seconded to form a task force under Z21.81/CGA 6.25 to study flow ranges higher than those recommended under Z21.89/CSA 1.18 and formulate recommendations(S. Gafford Chair, Messrs. Allison, Borton, DeMoss and Freeland.~~ | ~~09/ 00~~ | ~~Mr. Gafford~~ | ~~See Attachment 13.15.~~ | ~~Addressed at the meeting.~~<br>~~No further action required.~~ |
| ~~16~~ | ~~Item 18, Page 6, Proposals from J. Jollay on CGA 1.6. A motion was made and duly seconded to submit all approved changes under item 18 for Review and Comment.~~ | ~~09/ 00~~ | | ~~Should be reviewed at the meeting to verify that all proposed changes have been included in "b" addenda. (see Attachment 13.16).~~ | ~~Included in the final draft.~~<br>~~No further action required.~~ |
| ~~17~~ | ~~Item 19, Page 8, Proposals from J. Jollay on CGA 1.6. A motion was made and duly seconded to submit all approved changes under item 19 for Review and Comment.~~ | ~~09/ 00~~ | | ~~Should be reviewed at the meeting to verify that all proposed changes have been included in a draft standard. (see Attachment 13.17).~~ | ~~Included in the final draft.~~<br>~~No further action required.~~ |
| ~~18~~ | ~~A motion was made to form a task force to review the proposal on larger cylinders and develop recommendations to the JSC. At the 04/01 meeting, the task force will continue its work and will present a proposal in the next meeting. The T/F will also evaluate the use of 2 stage regulators.~~ | ~~09/ 00~~ | ~~Mr. Childers~~ | ~~Item on the agenda for the Feb. 2002 JSC meeting.~~ | ~~Addressed at the meeting.~~<br>~~No further action required.~~ |
| ~~19~~ | ~~Page 10, some proposals from Susan McCarthy were adopted~~ | ~~09/ 00~~ | | ~~No clear JSC's action recorded in the minutes (see Attachment 13.19)~~ | ~~Included in the final draft.~~ |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | ~~No further action required.~~ |
| ~~20~~ | ~~Item 5.2, Page 2, Action by Chris Childers: to propose revision of the label and present the proposal to the JSC in the next meeting (labels shown in App E of 1997 minutes were accepted for review and comment (most of them are in the current standard).~~ | ~~04/01~~ | ~~Mr. Childers~~ | ~~This item is on the Feb 2002 meeting agenda.~~ | ~~Addressed at the meeting.~~<br><br>~~No further action required.~~ |
| ~~21~~ | ~~Page 2, a motion was made and duly seconded to instruct the secretary to review the Minutes from November 1997 up till now to ensure that all actions requested by the JSC were carried out and to identify if certain items were not sent for R&C.~~ | ~~04/01~~ | ~~Staff~~ | ~~Item on the Feb 2002 agenda.~~ | ~~Addressed at the meeting.~~<br>~~No further action required.~~ |
| ~~22~~ | ~~Item 5.3, Page 4, a motion was made duly seconded to have Gafford/DeMoss revise their proposal based on the guidelines and send to the Secretary by May 18, 2001.~~ | ~~04/01~~ | | ~~Item on the Feb 2002 agenda.~~ | ~~Addressed at the meeting.~~<br>~~No further action required.~~ |
| 23 | To identify and address in future potential discrepancies between CSA 1.18/Z21.89 and CSA 1.6/Z21.58 standards. | 04/01 | JSC | | Submit a proposal for consideration at the future meetings. |

Attachment to Item 18
Action Item #2

Action taken by the Manual Valve JSC on proposed Moist Ammonia Air Stress Cracking Test

Background:
At its March 10-11, 1998 meeting, Manual Valves JSC adopted for public review the proposed revisions to section 2.5 Season Cracking of the standard for Quick Disconnect Devices for Use with Gas Fuel, ANSI Z21.41/CGA 6.9. Proposed revisions to revise section 2.5 by deleting the present season cracking test (mercurous nitrate test) and replacing it with an alternate test that has been shown to be equivalent and is environmentally safer and less hazardous to perform were published as "a" addenda to Z21.41/CSA 6.9 in April 2001.

Attached for additional information are the following documents:

- Abstract from the March 10-11, 1998 Manual Valves JSC minutes
- R&C text distributed for public review in June 1998
- A copy of "a" addenda to Z21.41/CSA 6.9 standard

Supporting Mr. Glover's proposal were a copy of ASTM B 858M-95 and a reprint of "Ammonia Test for Stress Corrosion Resistance of Copper Alloys", an article by Messrs. Einar Mattson, Rolf Holm, and Lars Hassel summarizing a test program conducted by Metallverken in Sweden in conjunction with Working Group WG4 of ISO Committee TC 26/SC2.

Discussion
It was noted that ASTM standard B858M was developed to address the demand for a test method for determination of the presence of residual stresses in copper ally products which may lead to stress corrosion cracking other than the mercurous nitrate test. ASTM B 858M is a conversion of standard ISO 6957 "Copper Alloys - Ammonia Test for Stress Corrosion Resistance". According to the research work performed by Mattson, et al, a proposed test with pH9.5 is somewhat less sever than the mercurous nitrate test while a pH10.5 is slightly more severe; a proposed test with a pH10.0 appears equivalent to the mercurous nitrate test. The technical integrity of the test method is validated by the research work of Mattson, et al.

Action
MOTION: Moved and duly seconded to adopt for public review, the proposed revision to section 2.5 Season Cracking of standard Z21.41/CGA 6.9, AND rationale statement, as shown
17 in Appendix B to these minutes.

CARRIED

M8. **Proposed definitions/tests for nozzles of hoses and valves - *W.Ferlin***

Action Requested
Adopt for public review, the proposed definitions and tests for nozzles of hose end valves in standard Z21.15/CGA 9.1, AND rationale statements.

Background
At its meeting of September 6, 1995 the joint subcommittee reviewed the proposed harmonized standard for manually operated gas valves for appliances, in light of the comments received during its public review period.

A comment from Mr. William Ferlin of Lincoln Brass Works, Inc. recommended that Section/Paragraph 1.3.6 and 2.9 of the proposed standard be revised to correlate with UL 569 which is more suitable, i.e. performance oriented. Additionally, Mr. Ferlin questioned if there is such a thing as a standard hose end nozzle. Mr. Ferlin volunteered to prepare a proposal for joint subcommittee consideration at its next meeting.

At the March 1997 joint subcommittee meeting, Mr. Ferlin stated that currently there is coverage in the standard for hose barbs, but more often now, the hose bar and spacing is specified by the customer and is made to order. Mr. Ferlin suggested that the U.L. 569 200 lbs pull test be used, regardless of the type of nozzle construction.

A motion was put forward by Mr. Ferlin and seconded by Mr. Howver, to the effect that the joint manual valve subcommittee adopt for public review, proposed revisions for nozzles of hoses and valves, based on the test requirements of U.L. 569. After discussion, it was agreed by the mover and the seconder to withdraw their motion, in light of the arguments presented.

During the discussion, Mr. Allison pointed out that the pull test is more an indication of the quality of the crimping of the hose onto the barb. It would not be appropriate to include testing of the assembly in the Z21.15•CGA 9.1 standard.

It was also pointed out that the type of hose to be used in the end assembly will depend on the

for high temperature.

Accordingly, a Task Group was appointed, comprising of Messrs. Johnson (Chair), Radey, and Allison to prepare provisions for consideration by the joint subcommittee at its March 1997 meeting.

At the March 11-12, 1997 joint subcommittee meeting, a Task Group report was not available. Although it was recognized that accommodating both high and low temperature requirements could prove challenging, there was a general consensus that development of a proposal for low temperature testing is a priority. After some additional discussion, it was agreed to reappoint a Working Group comprising of Mr. Dwayne Allison (WG Chair) and Mr. Don Radey, to develop low temperature tests for quick disconnects e.g. leakage tests, operation, etc.

The new working Group was requested present its recommendations to the joint Manual Valve Subcommittee for consideration at its next meeting.

Discussion
A Working Group report was not available. The WG Chair, Mr. Dwayne Allison, stated that this item is tied in with the previous discussion and the appointment of the Delaquila Working Group. The WG will consider whether or not there is a demonstrable need for a distinct profile for the indoor/outdoor quick disconnect. Future direction for this item is contingent on the recommendations of the Delaquila WG.

Manually Operated Gas Valves For Appliances, Appliance Connector Valves and Hose End Valves, ANSI Z21.15•CGA 9.1

M7. Proposed replacement for Mercurous Nitrate Test - D. Glover

Action Requested
Consider the draft proposed equivalent test and rationale for revisions to the mercurous nitrate test in the harmonized American National Standard/Canadian Gas Association Standard for Quick Disconnect Devices for Use With Gas Fuel, ANSI Z21.41•CGA 6.9

Background
At its meeting of March 12-13, 1996 the Joint Subcommittee adopted proposed revisions to the harmonized draft standard, for distribution for review and comment. Accordingly, the proposed revisions were issued for public review, under covering letter dated June 26, 1996. Comments containing criticisms or modification to the proposed harmonized draft standard were compiled and presented for subcommittee consideration at its meeting of March 11-12, 1997.

At the March 1997 meeting, the Joint Subcommittee considered several comments to the effect that the properties of the aqueous ammonia that make it acceptable to replace mercurous nitrate should be expounded upon. The information provided in the proposed rationale did not contain sufficient details.

At the conclusion of the discussion, there was general agreement in principle, that the mercurous nitrate test should be replaced. However, it should be replaced with an equivalent test, not one more onerous nor one less stringent.

Mr. Glover volunteered to draft a proposed equivalent test and rationale for consideration by the Manual Valves Joint Subcommittee at its next meeting. Mr. Glover's proposed revisions and rationale, dated March 21, 1997, were distributed with the agenda prior to the meeting.

## 2.5 SEASON CRACKING

~~Specimens of brass devices shall not show cracks or flaws under the conditions described below.~~

~~Method of Test~~

~~Any plating on the devices shall be removed prior to this test. The specimen shall be degreased in a suitable alkaline degreasing solution or organic solvent and, if necessary, totally immersed in an aqueous solution of sulphuric acid (15 percent by volume) or nitric acid (40 percent by volume) until all oxides are completely removed from its surface, or pickled in such solutions as may be prescribed in the specification for the material being tested. The specimen shall be removed from the pickling solution and washed immediately in running water.~~

~~The specimen shall then be drained free of excess water and totally immersed at room temperature in an aqueous solution containing 10 grams of mercurous nitrate and 10 millilitres of nitric acid (specific gravity 1.42) per litre of solution. At least 10 millilitres of mercurous nitrate solution per square inch (645 mm$^2$) of exposed surface of the test specimen shall be used.~~

~~The specimen shall be removed from the mercurous nitrate solution after 30 minutes and washed in running water. Any excess mercury shall be wiped from the surface of the specimen and the specimen immediately examined visually for cracks. In cases of doubt regarding the presence of cracks, the mercury shall be volatilized on the surface of the specimen by the application of heat on a hot plate or in an oven.* The specimen shall then be examined for cracks under suitable magnifying equipment at a magnification of 10 to 18 diameters.~~

~~Evidence of corrosive action of the test solutions shall not be interpreted as cause for failure.~~

~~***CAUTION – Mercury is a definite health hazard and equipment for the detection and removal of mercury vapour produced in volatilization is recommended. The use of rubber gloves in testing is advisable.**~~

Specimens of brass devices shall not show cracks or flaws when tested in accordance with ASTM B858M using a pH value of 10.0. This test shall be conducted on unplated samples.

*Rationale: Replace the mercurous nitrate test with an alternate test that has been shown to be equivalent* and is environmentally safer and less hazardous to perform.*

**REFERENCE: Mattsson, E., Holm, R., and Hassel, L., "Ammonia Test for Stress Corrosion Resistance of Copper Alloys, " The Use of Synthetic Environments for*

July 27, 1998

# *FOR REVIEW AND COMMENT ONLY*



**Proposed Revisions to**
**Proposed**
**AMERICAN NATIONAL / CSA STANDARD**
**FOR**

## QUICK DISCONNECT DEVICES FOR USE WITH GAS FUEL
**ANSI Z21.41•CSA 6.9**

Note: The following revisions were adopted for public review and comment by the Z21/83/(Interim CSA) Joint Manual Valve Subcommittee at its meeting of March 10-11, 1998. These proposed revisions are based on the draft Harmonized Standard for Quick Disconnect Devices For Use With Gas Fuel, (Z21.41•CGA 6.9) which was distributed for review and comment during August-September-October 1995.

Additions are "redlined" (shaded) and "strike-out" is used to show deletions (e.g. ).

## PART I
## CONSTRUCTION

### 1.5 SAFETY

1.5.4 The male plug of a 3/8 inch N.P.T. quick disconnect intended for use with a gas convenience outlet, or with a Z21.54/CSA 8.4 outdoor appliance connector, or with a Z21.69/CSA 6.16 gas connector for movable appliances in residential applications, shall comply with Figure 1.

This does not prohibit the use of other profiles intended for other applications.

*RATIONALE: To clarify the application and limitation within Z21.41/CSA 6.9 of the standard profile.*

*(Staff note: This is a revision of the text originally adopted for public review at the March 1997 meeting of the joint manual valves subcommittee meeting, and distributed on May 12, 1997 for R&C. At the March 1998 meeting of the joint subcommittee, a working group was appointed to reconsider the proposed wording, in light of comments received from the public. The above text was recommended by the Delaquila Working Group, and approved by subcommittee letter ballot for redistribution for public review.)*



April 10, 2001

**TO MANUFACTURERS OF CERTIFIED QUICK DISCONNECT DEVICES FOR USE WITH FUEL GAS:**

On *February 5, 2001,* the following harmonized addenda was approved by the American National Standards Institute, Inc. (ANSI) and by the Interprovincial Gas Advisory Council (IGAC) on *June 19, 2000*:

Z21.41a-2001•CSA 6.9a-M01, American National Standard/CSA Standard for Quick Disconnect Devices for Use with Fuel Gas

The revisions in this addenda supersede any corresponding provisions of Z21.41•CSA 6.9-1998 and are identical to the coverage from the yellow review and comment texts dated July 1998, "Appendix A" to the March 16-17, 1999 meeting of the Z21/CSA Joint Subcommittee on Standards for Manual Gas Valves. A copy of addenda "a" is enclosed.

The CSA International effective date for the harmonized addenda is *August 1, 2002*. The effective date in Canada, as approved by the IGAC, is *August 1, 2002*.

Under the terms of Agreement with CSA International, all certified accessories manufactured on or after the effective date of the pertinent standards revisions must comply with the addenda. However, CSA International will consider any information on the advisability of such effective date which it receives in the next 30 days, and may change such effective date accordingly.

## Major Revisions

Revisions contained in Z21.41a-2001•CSA 6.9a-M01 are to:

1. Revise 1.5.4 to clarify the application and limitation within Z21.41•CSA 6.9 of the standard plug profile.

2. Revise 2.5, Season Cracking, by deleting the present season cracking test, mercurous nitrate test, and replacing it with an alternate test that has been shown to be equivalent and is environmentally safer and less hazardous to perform.

## Conclusion

We remind you that all certified accessories manufactured on or after the effective date of the pertinent standards revisions must comply with the addenda. Please contact the CSA International location that traditionally provides your certification services to notify whether (1) your various models comply with effective standards or (2) they do not comply with effective standards, arrangements must be made to bring them into compliance. In the event we do not receive a response as to all your models listed in the Directory, prior to the above effective date, the certification of such models will be discontinued. Please direct your response to Trevor Perera, manager certification services, (Cleveland), Mark Christopherson, manager certification services (Irvine), or Terry Thom, operations manager (Toronto).





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*Corrosion Testing, ASTM STP 970, P.E. Francis and T.S. Lee, Eds., American Society for Testing and Materials, Philadelphia, 1988. pp. 152-164.*

1.6.4 A protective cap for the cylinder portion of a cylinder connection device shall bear a marking as follows:

"Place cap on cylinder valve outlet whenever the cylinder is not connected for use."

In addition we propose the following addition to the instructions section of the harmonized Standard for Outdoor Cooking Gas Appliances.

Place cap on cylinder valve outlet whenever the cylinder is not connected for use. Only install the type of cap on the cylinder valve outlet that is provided with the cylinder valve, other types of caps may result in leakage of propane.

*Rationale: The protective cap will protect the valve outlet form dirt, rain and snow. Dirt, rain and snow could result in deterioration of the valve seal mechanism causing leakage. Persons may install a POL plug in the Type I connection if the protective cap is not attached to the cylinder valve. Use of standard POL plug in a Type I connection could result in leakage of propane and defeat the intent of the sealing mechanism.*

Z21.58/1.6
Z21.89/1.18

It is also recommended that the joint subcommittee ask the NFPA 58 and B149.2 committees to include a requirement in the installation codes as follows.

A refillable cylinder with a cylinder connection device complying with CGA 6.25•Z21.81 Standard shall be equipped with a protective dust cap installed on the valve outlet whenever the cylinder is not connected for use.

Subcommittee Action:

The subcommittee agreed with the proposal, in general, that a protective apparatus would be a benefit to cylinder connection devices. There was some concern about requiring a protective cap as it was noted this may be applicable to the Type I connection device, but it is common for the Type II (CGA 810) connection to utilize a plug for the same concerns. To develop the proper coverage a task group was formed with the following members: Steve Gentry, Steve Sokol, Dave Stainbrook (chair), Dan Ginder, Tom Freeland and Dwayne Allison to report back to the subcommittee at its next meeting.

## ITEM 8 Storage of Spare Cylinders on Outdoor Cooking Gas Appliances

Recommendation:

The subcommittee is asked to consider a proposal that would prohibit the storage of spare cylinders on Outdoor Cooking Gas Appliances.

History:

The Consumer Products Safety Commission (CPSC) staff wrote the subcommittee requesting a new proposal to prohibit the use of spare cylinder on outdoor cooking gas appliances. Clause 1.1.4c of the harmonized standard would be modified to read:

ATTACHMENT TO ITEM 18 #3
PROTECTIVE CAP HISTORY

ITEM 6 Proposed Corrections to the Ha
Appliances, (CGA 1.6-M95•AN

Recommendations:

Consider a request to address five questions on the harmonized outdoor cooking gas appliance standard.

History:

In a letter written to Mr. David Stainrod, Alex Gafford has suggested some corrections are needed to the harmonized outdoor cooking gas appliance standard. He listed five specific concerns: 1) clause 2.6.9 with proper conversion of pressure units, 2) clause 2.18.1 appears to be lacking reference to Table IX, 3) clause 1.21.3 is grammatical incorrect, 4) clause 1.4.11 intent is not evident, and 4) section 1.9 should be renamed "Gas Appliance Pressure Regulators - Fixed Fuel Systems.

Subcommittee Action:

The subcommittee addressed each of Mr. Gafford's concerns. It was agreed to review clause 2.6.9 and correct it for any errors in conversion of pressure units from imperial to metric and also check the pressure conversions for significant figure protocol. These changes will be incorporated into the first addenda to the harmonized standard. Clause 2.18.1 will have a reference to Table IX editorial added. Point 3 was tabled until the next meeting so that staff could research the history behind clause 1.21.3 and report back to the subcommittee. Points 4 and 5 were already addressed under the review and comment text on Item 1.

ITEM 7 Protective Cap for Cylinder Connection Devices Under CGA 6.25•Z21.81

Recommendation:

Consider adding a requirement that in the Cylinder Connection Device standard, CGA 6.25•Z21.81 that would require cylinder connection devices to be supplied with a protective cap.

History:

Mr. Don Beck submitted a proposal detailing his request to the joint subcommittee to include a protective cap on cylinder connection devices.

Z21.81/6.25

General Assembly

1.2.1.8 A protective cap for the valve outlet shall be attached to the cylinder portion of a cylinder connection device.

Marking

History:

A proposal was submitted at the last meeting for including coverage for a protective cap on cylinder devices. The subcommittee agreed with the proposal, and that a protective cap would be beneficial to cylinder connection devices. There was concern that this may be applicable to a Type I connection device, but it is common for a Type II (CGA 810) connection to use a plug for the same concerns.

A task group was formed at the 22 & 23 October, 1996 meeting to develop proper coverage.

Subcommittee Action:

The chair of the task group Mr. Stainbrok submitted a written report which was read by Mr. Tim Crater. A copy of the report is attached as Appendix F to these minutes.

There was an objection to requiring a dust cap because consumers may stuff objects in the dust cap, but the subcommittee accepted the recommendations of the report.

The amendments recommended by the task force will be reviewed in its entirety, when Mr. Stainbrok reports back the subcommittee at the next meeting, on his additional work on addressing the CGA 810 (Type II) protective cap coverage.

**ITEM 10 Other Business**

Recommendation:

Review letters from:

(a) March 6, 1997 from S.H. Leggitt Company

(b) March 7, 1997 from Onward Multi-Corp Inc.

(c) March 10, 1997 from Consumers Union

(d) March 12, 1997 from Centra Gas

(e) Address an Issue of Item of the minutes of the 22 - 23 October, 1996 Meeting. Re: March 22, 1996 letter from Mr. Alex Gafford.

(f) Comment on Clause 1.6.4 a. from M.B. Sturgis.

Subcommittee Action

(a) Comments 1,2,and 4 made in the letter from S.H. Leggitt were all acceptable to the subcommittee. Item 3 was addressed earlier. It was moved and seconded to

1.5.8 Sunbeam Cooperation

The task group did not agree with the comment.

The task group felt that these appliances were not traditionally included with a cylinder. They have been used with consumer owned cylinders. By the time this standard is ready for publication, the likelihood that this being received before 1999, when OPDs are required on all cylinders is nil.

However, some members of the subcommittee could justify not having this requirement apply in this standard when it is required for outdoor cooking appliances. Members felt that the primary concern is safety not economic. It was moved and seconded to adopt the proposal for 1.5.8 by Sunbeam Corporation.

- CARRIED -

1.13.5 Sunbeam Cooperation

The subcommittee disagreed with this comment. They felt that this is an outdoor appliance and safety requirements such as fire extinguishers, and thermometer, and instructions are addressed in the standard. The cooking vessel is an after-market accessory.

1.14.1, 1.19.2.11.i, & 2.19.1 The subcommittee disagreed with the comment because this appliance is not a commercial appliance.

1.19.2.14 The subcommittee feels that this issue is of the same type as that of the earlier comment on 1.13.5, and the response is the same.

It was moved and seconded to send the updated proposed standard for public review and comment. See Appendix E.

CARRIED

**ITEM 9 Report From Task Group on Protective Cap** (See Appendix G)

**Recommendation:**

Consider the verbal task group report presented at this meeting on the subject. Recommend future action.

## Cylinder Manufacturers

No dust cap or plug type device is supplied with cylinders using the Type II (CGA 810) connection. One manufacturer does not supply cylinders using the Type II connection. No objection to proposed verbiage in 1.6.4. from two of three manufacturers; the other did not respond before the deadline.

Three cylinder manufacturers were contacted.

## SUMMARY

It appears the requirements for the Type I connection device can be described with the proposed verbiage in 1.6.4.. Further work needs to be done to work out language that will work with the Type II connection. Task Force Chairman will work with Type II cylinder connection manufacturers to develop additional language to be utilized in 1.6.4.. This will be forwarded to Task Group for refinement and will be ready to submit before next Subcommittee Meeting.

David Stanbach
EC II / Rego Products

# CGA/ANSI Z21 JOINT TASK FORCE FOR PROPOSED 1.6.4

## TYPE I

### Type I Valve Manufacturers

Of the manufacturers of Type I valves surveyed, all that responded recommend caps or closures for the outlet connection of Type I cylinder valves. No objections to intent or verbiage in proposed 1.6.4.

Six Type I manufacturers were contacted - five responded.

### Cylinder Manufacturers

Manufacturers of cylinders utilizing Type I connection cylinder valves supply caps or closures for the outlet connections on cylinders from 4# - 20# being supplied for outdoor cooking appliances. No objection to verbiage or intent in 1.6.4.

## TYPE II (CGA 810)

### Type II Manufacturers

One manufacturer makes no specific recommendations to the need for protecting the outlet. They do, however, offer a protective dust plug for sale. No objection to intent of proposed 1.6.4, but to the verbiage.

Another manufacturer does not offer a protective dust plug, although one is in process. They did not respond to the question of verbiage of 1.6.4 before the deadline.

Two Type II connector manufacturers responded.

The subcommittee reviewed the report and adopted it for review and comment and recommend a proposed change to the B149 Code and NFPA 58 Committees.

**(b) Warnings Labels**

**Background**

At the last meeting Mr. Childers indicated that he would convene a task group to look into warning labels for the standard and reference the format with the ANSI Z535.4 guidelines on labelling.

**Subcommittee Action**

The subcommittee was provided with the labels shown in Appendix E. These labels were accepted for review and comment.

## ITEM 7. EXTENSION OF Z21.81•CGA 6.25 REQUIREMENTS FOR ADAPTORS ON 510 CYLINDER CONNECTION TO CONVERT TYPE I OR TYPE II CYLINDER CONNECTION DEVICES.

**Background**

The item attached to these minutes as Appendix F was brought forward by Mr. A. Gafford for consideration by the joint Subcommittee.

**Discussion**

Mr. Gafford presented an overview of the proposal. He indicated that these adaptors are aftermarket items.

It was pointed out that by the time this standard goes through the development and approval process, overfill prevention devices, OPD's will be required on all LP cylinders. This issue will be a mute point.

The consensus of the joint subcommittee was to dispose of this item without further consideration. UL 2061 and CGA Interim Requirement will serve to address any compliance requirements in the meantime.

## ITEM 8. OTHER BUSINESS

## ITEM 6 BUSINESS BROUGHT FORWARD FROM THE LAST MEETING

### (a) Type II Connection Device Protective Cap

**History:**

A proposal was submitted at the October 1996 meeting of this subcommittee detailing a request to the joint subcommittee to include a protective cap on cylinder connection devices.

The rationale for the proposal was as follows: "The protective cap will protect the valve outlet form dirt, rain and snow. Dirt, rain and snow could result in deterioration of the valve seal mechanism causing leakage. Persons may install a POL plug in the Type I connection if the protective cap is not attached to the cylinder valve. Use of standard POL plug in a Type I connection could result in leakage of propane and defeat the intent of the sealing mechanism."

It was also recommended that the joint subcommittee ask the NFPA 58 and B149.2 committees to include a requirement in the installation codes.

The subcommittee agreed with the proposal, in general, and that a protective apparatus would be a benefit to cylinder connection devices. There was some concern about requiring a protective cap as it was noted this may be applicable to the Type I connection device, but it is common for the Type II (CGA 810) connection to utilize a plug for the same concerns. To develop the proper coverage a task group was formed to develop a proposal and report back at the next meeting.

The chair of the task group Mr. Stainbrok submitted a written report at the last meeting, April 1997, which was read by Mr. Tim Crater. A copy was attached as an appendix to those minutes.

There was an objection to requiring a dust cap because consumers may stuff objects in the dust cap, but the subcommittee accepted the recommendations of the report.

At the last meeting it was decided to review the amendments recommended by the task force when it is submitted in its entirety. Mr. Stainbrok reported back the subcommittee at this meeting with the entire report, as shown in Appendix D.

**Subcommittee Action**

**Suggested changes to proposal 1.2.1.8 and 1.6.4.**
**November 4, 1997**
General Assembly

FROM MB STURGIS?

UTHILL CORPORATION

Facsimile

Date: Nov

To:

1.2.1.8 A protective cap for Type I (CGA 791) valve outlet shall be attached to the cylinder portion of a cylinder connection device.

*Rationale: The reference to Type I outlet is necessary since this connection should only utilize a cap as specified in the original proposal. This is due to concern about the use of POL plugs in a Type I connection creating a potential for opening the back check and causing a leak path. The Type II (CGA 810) outlet connection has not been referenced, both connection manufacturers believe this device does not require additional protection based on the design and field history (15 years).*

Marking

1.6.4 A protective cap for the cylinder portion of a Type I (CGA 791) cylinder connection device shall bear a marking as follows:

For Type I connections:" Place cap on cylinder valve outlet whenever the cylinder is not connected for use."

---

*Rationale: See rationale for 1.2.1.8*

**Proposed changes to instructions section of the harmonized Standard for Outdoor Cooking Gas Appliances.**

"Place cap on cylinder valve outlet whenever the cylinder is not connected for use. Only install the type of cap on the cylinder valve outlet that is provided with the cylinder valve, other types of caps or plugs may result in leakage of propane."

*Rationale: See rationale for 1.2.1.8, inserting plug in a Type I connection may create a leak path..*

**Proposed change to recommendation from joint subcommittee to NFPA 58 and B149.2 committees:**

"A refillable cylinder with a Type I (CGA 791) connection device complying with CGA 6.25*Z21.81 Standard shall be equipped with a protective dust cap supplied with the cylinder. The cap shall be installed on the valve outlet whenever the cylinder is not connected for use."

URGIS INC
555 FEE FEE ROAD • MARYLAND HEIGHTS, MISSOURI 63043-3256
PHONE (314) 291-6665 FAX NO. (314) 291-6628

10/07/97

Mr. David J. Stainbrook
Product Manager
Engineered Controls International, Inc.
P.O. Box 247
Elon College, NC 27244

David:

At your request, we have reviewed the suggested changes to ANSI/NFPA58 and CAN/CGA B149.2 establishing a requirement for caps or plugs for CGA No. 791 and CGA No. 810 cylinder valve outlets.

We concur that a protective cap is of benefit when used in conjunction with the valve outlet of a CGA No. 791 cylinder connection device. Due to the area of exposure of the valve seat to the elements and foreign materials, a means to protect that seat is desirable. A cap, installed whenever the cylinder is not connected to the appliance, serves to protect that seat surface.

Additionally, due to the requirement for a plug to be installed in the outlet of a CGA No. 510 cylinder connection device when the cylinder is not in use, combined with the ability of a CGA No. 791 valve outlet to accept a CGA No. 510 male portion, it is desirable to prevent the insertion of the plug in the CGA No. 791 outlet as the plug can open its internal valve. While the requirement of a cap on the CGA No. 791 outlet does not prevent insertion of a plug., its presence does at least discourage it.

However, we do not concur on the need for a protective plug or cap used in conjunction with a CGA No. 810 cylinder connection device. This device which has been in service in this application since 1982 has an exemplary history with no reported incidents involving seat element failure due to exposure to the elements or failure from the exposure to foreign materials introduced by way of the outlet.. Furthermore, it is not prone to the insertion of a protective plug designed for a similar application. Thus, we feel to require a plug or cap would be to address a non-existent need.

Thank you for the opportunity to review this material. Should you have any questions or require additional information, please do not hesitate to contact us.

Sincerely:
M.B. STURGIS, INC.

DA/gc

cc: R. Diel
T. Hamilton
R. Wunderlich

January 26, 1998

Not for Publication

# *FOR REVIEW AND COMMENT ONLY*



**Proposed Revisions to the first edition of AMERICAN NATIONAL STANDARD/CANADIAN GAS ASSOCIATION STANDARD FOR OUTDOOR COOKING GAS APPLIANCES**

Note: The following draft revisions were adopted for ~~distribution for review and comment by the~~ Interim CSA/Z21 Joint Subcommittee on standards for Outdoor Cooking and Illuminating Gas Appliances November, 1997 meeting. These revisions are based on the harmonized CGA/ANSI standard for Outdoor Cooking Gas Appliances ANSI Z21.58-1995/CGA 1.6-M95, and the first Addenda.

Additions are "underlined" and "strike-out" is used to show proposed additions and deletions respectively.

DUE DATE: March 23, 1998

UTHILL | Hansen Coupling
RPORATION | Division

1000 West Bagley Road, P.O. Box 805
Berea, Ohio USA 44017-0805
Tel 216 826-1115 Fax 216 826-0115

# Facsimile

**Date:** November 3, 1997 **Pages:** 1

**To:** David J. Stainbrook, Engineered Controls **Fax:** 910-449-6594

**From:** Don Radey **cc:** S. Hunter

**Subj.:** Protective Caps for CGA 810 Connection B. Kozman

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** X **Per Your Request** ☐ **Informational**

David

At your request I have reviewed the suggested changes to the proposed standard.

I believe that requiring a protective cap on the cylinder portion of the CGA 791 (Type I) cylinder connection device will help discourage the use of the plastic CGA 510 threaded plug which can open the valve and a potential leak path.

The CGA 810 (Type II) cylinder connection device has been in the field for fifteen years without any reports of seal failures due to contamination or exposure to the elements. Based on this I do not feel that a protective dust cap should be a requirement of the proposed standard.

While a protective dust plug need not be mandatory for the CGA 810 connection it's use would not effect the function of the device and could be beneficial under certain conditions.

I have no objection to the intent or wording as proposed in 1.2.1.8 or 1.6.4 of the proposed standard.

*Rationale:*

*Inserting plug in a Type I connection may create a leak path.*

*A proposal was made to have a protective cap required in the ANSI Z21.81/CGA 6.25 standard for Cylinder Connection Devices, with the following rationale: The reference to Type I outlet is necessary since this is due to the concern about the use of POL plugs in a Type I connection creating a potential for opening the back check and causing a leak path. The Type II (CGA 810) outlet connection has not been referenced. Both connection manufacturers believe this device does not require additional protection based on design and field history (15 years).*

Not for Publication

1.22.1revision

~~FOR YOUR SAFETY~~
DANGER

**If you smell gas:**

1. **Shut off gas to the appliance.**
2. **Extinguish any open flame.**
3. **Open lid.**
4. **If odor continues, keep away from the appliance and immediately call your gas supplier or your fire department.**

Leaking gas may cause a fire or explosion which can cause serious bodily injury or death or damage to property.

---

~~FOR YOUR SAFETY~~
WARNING

~~1.~~ 2 **Do not store or use gasoline or other flammable liquids or vapors ~~and liquids in the vicinity of this or any other~~ within 25 feet (8 m) of this appliance.**

~~2. An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.~~

1. **Do not store spare LP cylinder within 10 feet (3 m) of this appliance**

221.58/1.6

New 1.22.2 b. 13 Place cap on cylinder valve outlet whenever the cylinder is not connected for use. Only install the type of cap on the cylinder valve outlet that is provided with the cylinder valve, other types of caps or plugs may result in leakage of propane

WOULD ALSO APPLY TO 221.89/1.15

The corner store may have to list qualified service agencies on the cages. If the yellow pages are used then anyone listed in that category may be mistakenly assumed to be qualified.

The subcommittee was not convinced that this proposal would serve the end user well.

It was suggested that the requirement be retained as proposed in the R&C text because it is also a requirement in other standards.

I was moved and duly seconded to reject this proposal.

- CARRIED -

**Comment:**(Walker Milnor, Gas To Go, Inc.)

1.22.4

The purpose of the Type I valve is to prevent accidental discharge. The purpose of the POL is also to stop accidental discharge. The POL plug works on a POL valve, and it also works on QCC1.

Our company tested several different manufacturer's Type I valves with the valve open. We could not create a leak in any of the circumstances. Of the hundreds of thousands of returned cylinders we handle in the exchange business, the numbers of Type I valve that someone has inserted a POL plug into has been less than 5. In addition, the number of Type I valves with the cap re-attached is few.

Requiring a cap to be attached to the bottle will create an unnecessary expense and hardship for all those refilling 20 lb. Cylinders. The public will, for the most part, not pay attention to, or use, such a device. Lastly, soon all POLs will be off of the market, along with the plugs. I would not like to see an unnecessary rule on the books, and left there.

**Subcommittee's Discussion and Action**

The Subcommittee was informed that in some circumstances, although few, a leak can occur with a Type I valve.

One of the reasons for the cap is to prevent the use of the POL.

## ITEM 1 OPENING REMARKS

The Chairman welcomed those in attendance and called for a round of introductions.

## ITEM 2 MINUTES OF THE LAST MEETING - STRIKE DETAILS OF ITEM 2.

**Action Requested**

Strike the details of Item 2 concerning Providing Cylinders with Outdoor Cooking Appliances.

**Additional Information**

Mr. Hosler, Chairman of the Z21/83 Committee who made a presentation on the issue surrounding providing cylinders with outdoor cooking appliances, wish to have the details under discussion of this item struck from the minutes. He indicated that the minutes went into much more details than he wished to have on record. His intent was to have a general informal presentation to the subcommittee.

A motion was made and duly seconded to strike Item 2 of the last meeting of this subcommittee.

- CARRIED -

## ITEM 3 COMMENTS FROM JANUARY, 1998 PUBLIC REVIEW AND COMMENT PROPOSED REVISIONS TO THE HARMONIZED STANDARD ANSI Z21.58•CGA 1.6 OUTDOOR COOKING GAS APPLIANCES

**Action Requested**

Address the comments received from the subject review and comments on the proposed revisions to the harmonized standard ANSI Z21.58/CGA 1.6

thousands of returned cylinders we handle in the exchange business, the numbers of Type I valve that someone has inserted a POL plug into has been less than 5. In addition, the number of Type I valves with the cap re-attached is few.

Requiring a cap to be attached to the bottle will create an unnecessary expense and hardship for all those refilling 20 lb. Cylinders. The public will, for the most part, not pay attention to, or use, such a device. Lastly, soon all POLs will be off of the market, along with the plugs. I would not like to see an unnecessary rule on the books, and left there.

**Subcommittee's Discussion and Action:**

Mr. Gentry read the existing marking on an approved cap. This marking was considerably longer than that suggested by Mr. Bellini, so his comment was non persuasive. The subcommittee rejected Mr. Belinni's proposal.

A comment was made that the material or performance requirements for this cap has not been established, but there was no action taken on that comment.

It was moved and duly seconded to reject Mr. Blackwell's comment because the manufacturers still feel that historically there has not been a problem with type II valves that would warrant the use of a cap.

- CARRIED -

The position raised by Mr. Milnor received the same response as his similar comment under Item 3 of these minutes.

It was moved and duly seconded to reject the proposed New 1.6.4 in light of comments raised by Mr. Gentry and for the following reasons:

1. The subcommittee adopted a proposal to revise New 1.2.1.7 to read as follows:

   "A protective cap for Type I (CGA 791) and cap or plug for Type II (CGA 810) valves outlet shall be attached to the cylinder portion of a cylinder connection device."

This is a substantial revision therefore would have submitted for R&C.

2. New 1.6.4 does not address the use of Type II, as the proposed revision to the New 1.2.1.7 above; and

Z21.81/6.25

It was moved and duly seconded to retain the requirement as issued for R&C.

- CARRIED -

**ITEM 4 COMMENTS FROM JANUARY, 1998 PUBLIC REVIEW AND COMMENT PROPOSED REVISIONS TO THE DRAFT HARMONIZED STANDARD ANSI Z21.81•CSA 6.25 CYLINDER CONNECTION DEVICES**

**Action Requested**

Address the comments received from the subject review and comment on the proposed revisions to the draft harmonized standard ANSI Z21.81/CSA 6.25

**Comments:**

(Luc Bellini, Gaz Metropolitain)

1.6.4 Proposed wording may be too long for marking: "Install cap when cylinder not in use."

(Robert Blackwell, Independent Propane Company)

1.2.1.7 & 1.6.4 All cylinder connection devices need caps to limit the amount of solid contamination entering cylinders.

Statement of Problem and Rationale

The substantiation as printed is inadequate considering the advent of OPD's which have small ports & orifices.

(Walker Milnor, Gas To Go, Inc.)

1.2.1.7

The purpose of the Type I valve is to prevent accidental discharge. The purpose of the POL is also to stop accidental discharge. The POL plug works on a POL valve, and it also works on QCC1.

Our company tested several different manufacturer's Type I valves with the valve open. We could not create a leak in any of the circumstances. Of the hundreds of

3. Caps or plugs are not being supplied in te field.

- CARRIED -

Mr. Gentry indicated that he will submit proposed requirements to address this issue. It was therefore decided to hold of submitting New 1.2.1.7 until Mr. Gentry's proposals are considered.

**ITEM 5 COMMENTS FROM JANUARY, 1998 PUBLIC REVIEW AND COMMENT PROPOSED REVISIONS TO THE DRAFT HARMONIZED STANDARD ANSI Z21.89•CSA 2.36 OUTDOOR COOKING SPECIALTY GAS APPLIANCES**

**Action Requested**

Address the comments received from the subject review and comment on the ~~proposed revisions to the draft harmonized standard ANSI Z21.89/CSA 2.36~~

**Comments:**(W.G. Mitchell, Occupational Health and Safety and Fire Prevention Div. Govt. of Canada)

1.5.2

**Suggest the following Revision:**

Integral retention of the LP supply cylinder is not required on appliances which do not incorporate wheels or other means of movement, provided that the hose is of such a length that the cylinder cannot be more than 18 inches (46 cm) away from the appliance when connected for use.

Statement of Problem and Rationale for Comment

(i) The wording of the proposed amendment does not appear to reflect the intent of the last sentence in the rationale statement.

(ii) Proposal should read "....18 inches away ..."(editorial)

(iii) Even if revised as suggested, it is not at all clear why hoses for propane-fired appliances should be considered a tripping hazard, while hoses for gas-fired appliances, which have to be longer, are not. Is the concern really about tipping the cylinder, not tripping?

**ITEM 1 Chair's Opening Remarks**

The new Chairman, Ron Mell, welcomed those in attendance and called for a round of introductions. New members to the Joint Subcommittee were greeted. The Chairman outlined the agenda to the Joint Subcommittee suggesting that Item 7 Nomination of a Vice Chairman would have to be dealt with at a later date. He felt that it was first necessary to straighten out the membership of the joint subcommittee before proceeding with this step.

**ITEM 2 Approval of the Agenda**

It was moved and duly seconded to approve the agenda as distributed.

**- Carried -**

**ITEM 3 Approval of the Minutes of the Last Meeting.**

It was moved and duly seconded to approve the minutes as distributed.

**- Carried -**

**ITEM 4 Business Arising from the Minutes of the Last Meeting**

**(a) Proposal for Clause 1.2.1.7 of ANSI Z21.81/CGA 6.25.**

The subcommittee had agreed that a cap would be required on Type I connections and a cap or plug would be required on Type II connections. S. Gentry of Worthington Cylinder was not comfortable with the proposed wording for this requirement and submitted revised verbage. (See Appendix B).

**(b) Report from Task Group on Specialty Outdoor Cooking Gas Appliances**
**and**
**(c) Review of Proposed Clause 1.6.2 of Draft Harmonized Standard ANSI Z21.89/CGA 1.18 on Outdoor Cooking Specialty Gas Appliances**

**See Appendix A of the minutes**
This task group was concerned mainly with clause 1.6.2 of the draft standard which covers integral cylinder retention. The work of the task group took place in the

File No. C1-17

FORM FOR COMMENTS ON PROPOSED
STANDARD ANSI Z21.81•CSA 6.25

Date: 04-23-98 Name: Steven T. Gentry Tel.No.: 614-438-3057

Address: 1095 Deerbeer Drive Caumbus, Ohio 43085

Affiliation: Worthington Cylinder Corporation

Standard Title: CYLINDER CONNECTION DEVICES Std.No.:ANSI-Z21.81•CSA 6.25

1. Endorse proposed revisions: YES ☐ NO ☐

2. Comment: YES ☒ NO ☐

a. ~~Section/Paragraph:~~ 1.6.4

b. Comment (include proposed wording or identification of wording to be deleted):

New 1.6.4

For Type I connections " Use this cap when cylinder is not in use."

c. Statement of Problem and Rationale for Comment:

The proposed verbage does not represent the present verbage that has been used for approximately 4 years and adds no additional safety value to the standard

Signature

Steven T. Gentry
Print Name

Mail to: Raymond Thurton, Project Manager,
Canadian Standards Association
178 Rexdale Blvd. Etobicoke, ON
M9W 1R3 FAX: (416) 747 2473

614-660-9506

Addenda to
American National Standard/CSA Standard

Z21.41-1998 · CSA 6.9-M98

for

# QUICK DISCONNECT DEVICES FOR USE WITH GAS FUEL APPLIANCES

ANSI Z21.41a-2001
CSA 6.9a-2001

## PART I

## CONSTRUCTION

### 1.5 SAFETY

1.5.4 The male plug of a $^{3}/_{8}$ inch NPT quick disconnect intended for use with a gas convenience outlet, or with a Z21.54 · CSA 8.4 outdoor appliance connector, or with a Z21.69 · CSA 6.16 gas connector for movable appliances in residential applications, shall comply with Figure 1.

This does not prohibit the use of other profiles intended for other applications.

## PART II

## PERFORMANCE

### 2.5 SEASON CRACKING

Specimens of brass devices shall not show cracks or flaws when tested in accordance with *ASTM B 858M* using a pH value of 10.0. This test shall be conducted on unplated samples.

NOTE: Changes, other than editorial, are denoted by a vertical line in the margin.

Approved February 5, 2001 by American National Standards Institute, Inc.
Approved June 19, 2000 by the Interprovincial Gas Advisory Council. Effective in Canada August 1, 2002.

CSA INTERNATIONAL
8501 East Pleasant Valley Road
Cleveland, Ohio, U.S.A 44131

SECRETARIATS:

and

CSA INTERNATIONAL
78 Rexdale Boulevard
Toronto, Ontario, Canada M9W 1R3

Published February 2001

Attachment to Item 18
Action Item #13

Maximum Allowable Temperatures in Table II

I do have a temperature chart for metals and alloys from which I offer the following:

Red Brass is listed on the chart with a melting point of 1800F and a maximum usable temperature of 400F. The maximum allowable temperature per Table II is 450F.

Per the chart, low carbon steels have a melting point of about 2670F and maximum usable temperature of 800F. This is consistent with the 800F allowable in Table II.

Bronze is listed on the chart as well. Depending on the type of Bronze, the melting point ranges from 1640F to 1970F, and the maximum usable temperature specified is 400F. I could not find any maximum allowable temperature listed in the ANSI/CSA gas standards for the material for comparison.

Lastly, Per the chart, 304 and 302 series stainless have a maximum usable temperature of 860F. 316, 321 and 347 series stainless is 1500F. However, Table II specifies a maximum allowable temperature of 700F for all 300 Series stainless.

**Senka Krsikapa**

**From:** Susan McCarthy
**Sent:** Wednesday, September 18, 2002 4:58 PM
**To:** Senka Krsikapa
**Subject:** Item 18 - 13 Maximum Allowable Temperatures in Table II

Item 18 - 13
aximum Allowable.

Senka;

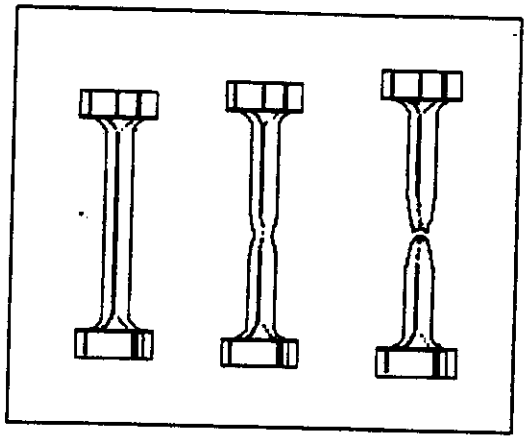
Please also see my communication with Dennis Jones below:

Thank you for your voice mail Dennis. I'm sorry I missed your call. I look forward to receiving a copy of the e-mail on the softening temperatures and scaling temperatures for Brass, Copper and Aluminum. Attached please find the info I have found thus far and the report I have made for this item. I will inform the secretary that Mr. Furlin plans to bring the information with him and distribute it at the meeting. Please have him identify it as Attachment to Item 18 - Action Item #13. He should plan to bring about 50 copies for distribution.

Attachment to Item 18
Action Item #13

**MUELLER BRASS CO.**
**TECHNICAL DEPARTMENT**

**2199 Lapeer Avenue**
**Port Huron, MI 48060**
**Ph. (810) 987-7770 ext. 428**
**Fax (810) 987-7321**



FROM: *Kelly Remick*

TO: Dennis Jones
770 975 9505

NO. PAGES: 2
Including cover

DATE: 9-19-02

---

Dennis - I went through the ~~ASM~~ Metals Handbook again and picked out some aluminum and copper tube alloys. I'm sending information listed for the anneal, recrystallization, and soften temperature as listed in the book. (All temps in °F)

Hope this helps.

Kelly

sent by e-mail

9-19-02

## Aluminum Tube Alloys*

| Alloy | anneal temp. | Re-xtal |
|---|---|---|
| 1060 | 650°F | N/A |
| 3003 | 775 | N/A |
| 6061 | N/A | N/A |
| 7075 | 775 | N/A |

## Copper Tube Alloys**

| Alloy | Anneal temp. | Re-xtal | Softening |
|---|---|---|---|
| 1010 | 700-1200°F | N/A | |
| 1100 | 900-1400° | N/A | 675°F |
| 1250 | 750-1200 | N/A | N/A |
| 1700 | 1425-1475 | 1350°F | N/A |
| 1840 | N/A | N/A | N/A |
| 2300 | 800-1350 | 660 | N/A |
| 2700 | 800-1500 | 550 | N/A |
| 3300 | 800-1200 | 550 | N/A |
| 4430 | 800-1100 | 575 | N/A |
| 4850 | 800-1100 | 680 | N/A |
| 7060 | 1100-1500 | N/A | N/A |
| 7520 | N/A | N/A | N/A |

Data taken from ASM Metals Handbook, Vol 2., 10th Ed., "Properties and Selection: Nonferrous Alloys and Special-Purpose Materials."

* "Aluminum Tds and data 2000," the Aluminum Assoc. Sec. 12 Tube & Pipe

** "Standards Handbook Parts 5 & 6", CSA, Sec. 5 Product

ASM METALS HANDBOOK
VOL. 2, 10th Ed.

| ...tion, % | Hardness, HRB | Shear strength MPa | ksi |
|---|---|---|---|
| 48 | 80 | 260 | 38 |
| 58 | 68 HRF | 205 | 30 |
| 50 | 78 | 235 | 34 |
| 52 | 75 | 220 | 32 |
| ... | 68 HRF | 205 | 30 |
| | 62 | 230 | 33 |

...drawn 18% (c) Cold drawn 15%

## C36000
## 61.5Cu-35.5Zn-3Pb

### Commercial Names

*Previous trade name.* Free-cutting b...
*Common name.* Free-turning brass; ...cutting yellow brass, high-leaded br...

### Specifications

*AMS.* 4610
*ASTM.* B 16
*SAE.* J463
*Government.* Flat products: QQ-B-... Bar, forgings, rod, shapes, strip: QQ-B-...

### Chemical Composition

*Composition limits.* 60.0 to 63.0 Cu, 2.5 ... Pb, 0.35 Fe max, 0.5 max other (total), b...

### Applications

*Typical uses.* Hardware: gears, pinion... dustrial: automatic high-speed screw ... chine parts

### Mechanical Properties

*Tensile properties.* See Table 68 and F...
*Hardness.* See Table 68.
*Elastic modulus.* Tension, 97 GPa (14... psi); shear, 37 GPa (5.3 × $10^6$ psi)
*Fatigue strength.* Rotating-beam tests ... mm (0.350 in.) diam specimens taken ... 50 mm (2 in.) diam rod. H02 temper (... drawn 15%): 140 MPa (20 ksi) at $10^8$ cy... 97 MPa (14 ksi) at 3 × $10^8$ cycles

### Structure

*Microstructure.* Generally three phas... β, and lead

### Mass Characteristics

*Density.* 8.5 g/cm³ (0.307 lb/in.³) at 20 °... °F)

### Thermal Properties

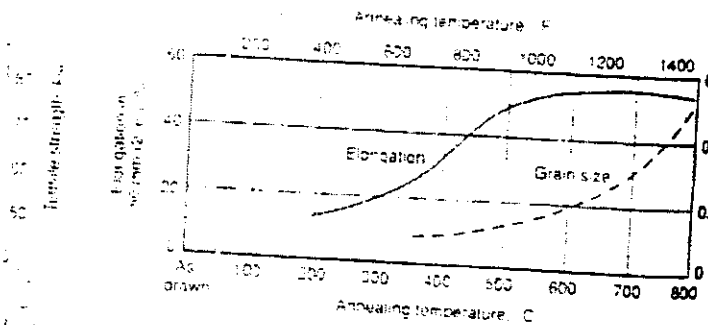
*Liquidus temperature.* 900 °C (1660 °F)
*Solidus temperature.* 885 °C (1630 °F)
*Coefficient of linear thermal expansi...* 20.5 μm/m · K (11.4 μin./in. · °F) at 2... 300 °C (68 to 572 °F)
*Specific heat.* 380 J/kg · K (0.09 Btu/lb ... at 20 °C (68 °F)
*Thermal conductivity.* 115 W/m · K (67 Btu/ft · h · °F) at 20 °C (68 °F)

### Electrical Properties

*Electrical conductivity.* Volumetric, O61 temper, 26% IACS at 20 °C (68 °F)
*Electrical resistivity.* 66 nΩ · m at 20 °C (68 °F)

### Fabrication Characteristics

*Machinability.* 100%. This is the standard material against which the machining qualities of all other copper alloys are judged.
*Formability.* Cold working, poor; hot forming, fair
*Weldability.* Soldering: excellent. Brazing: good. Resistance butt welding: fair. All other welding processes are not recommended.
*Recrystallization temperature.* 330 °C (625 °F)
*Annealing temperature.* 425 to 600 °C (800 to 1100 °F). See also Fig. 38.
*Hot-working temperature.* 700 to 800 °C (1300 to 1450 °F)




(c) Cold drawn 60% to 19 mm (0.75 in.) in diameter from 5830 temper as-extruded) starting ...

p. 310 Specific Metals and Alloys

Table 69 Typical mechanical properties of C37000

| Temper | Tensile strength MPa | ksi | Yield strength(a) MPa | ksi | Elongation in ... mm (2 in.), % |
|---|---|---|---|---|---|
| Tube, 38 mm (1.5 in.) outside diameter × 3 mm (0.125 in.) wall thickness | | | | | |
| O50 | 370 | 54 | 140 | 20 | 40 |
| H80(b) | 550 | 80 | 415 | 60 | 6 |
| Tube, 50 mm (2 in.) outside diameter × 6 mm (0.25 in.) wall thickness | | | | | |
| H80(c) | 485 | 70 | 310 | 45 | 10 |

(a) At 0.5% extension under load. (b) Cold drawn 35%. (c) Cold drawn 25%

## C36500, C36600, C36700, C36800
## 60Cu-39.4Zn-0.6Pb

### Commercial Names

*Previous trade name.* C36500, uninhibited leaded Muntz metal; C36600, arsenical leaded Muntz metal; C36700, antimonial leaded Muntz metal; C36800, phosphorized leaded Muntz metal
*Common name.* Leaded Muntz metal; inhibited leaded Muntz metal

### Specifications

*ASME.* Plate, condenser tube: SB171
*ASTM.* Plate, condenser tube: B 171. Plate, clad: B 432

### Chemical Composition

*Composition limits.* 58.0 to 61.0 Cu, 0.4 to 0.9 Pb, 0.15 Fe max, 0.25 Sn max; As Sb, or P (see below); 0.1 max other (total), bal Zn
*Antimony or phosphorus limits.* C36500, none specified; C36600, 0.02 to 0.1 As; C36700, 0.02 to 0.1 Sb; C36800, 0.02 to 0.1 P

### Applications

*Typical uses.* Main tube sheets for condensers and heat exchangers; support sheets; baffles

p. 311 Properties of Wrought Copper Alloys

### Mechanical Prope...

*Tensile properties.* temper: tensile st... yield strength (0... (20 ksi); elongatio...
*Shear strength.* ... ksi)
*Hardness.* M20 te...
*Elastic modulus.* ... 10⁶ psi); shear, 39...

### Structure

*Crystal structure.* ...
*Microstructure.* A... solved lead. Beta ... low with ammonia ... darkened with fe... appears as insolub... ly distributed thro...

### Mass Characteristi...

*Density.* 8.41 g/cm... (68 °F)

### Thermal Properties

*Liquidus temperat...*
*Solidus temperatur...*
*Coefficient of lin...* 20.8 μm/m · K (11... 300 °C (68 to 572 °F)
*Specific heat.* 380 J... at 20 °C (68 °F)
*Thermal conductiv...* Btu/ft · h · °F) at 2...

### Electrical Properties

*Electrical conduct...* temper: 28% IACS
*Electrical resistivity.* ...

### Chemical Properties

*General corrosion* ... tance to corrosion ... water. C36500 is the ... subject to dezincific... loys each contain 0.... itor element (As, Sb ... high resistance to de...

### Fabrication Characte...

*Machinability.* 60% ... brass)
*Formability.* Cold w... ing, excellent

Attachment to Item 18
Action Item #13

Maximum Allowable Temperatures in Table II

Aluminum Tube Alloys*

| Alloy | Annealing Temperature | Recrystallization Temperature | Softening Temperature |
|---|---|---|---|
| 1060 | 650 °F | N/A | N/A |
| 3003 | 775 °F | N/A | N/A |
| 6061 | N/A | N/A | N/A |
| 7075 | 775 °F | N/A | N/A |

Copper Tube Alloys**

| Alloy | Annealing Temperature | Recrystallization Temperature | Softening Temperature |
|---|---|---|---|
| 1010 | 700 – 1200 °F | N/A | 675 °F |
| 1100 | 900 – 1400 °F | N/A | N/A |
| 1250 | 750 – 1200 °F | N/A | N/A |
| 1700 | 1425 – 1475 °F | 1350 °F | N/A |
| 1840 | N/A | N/A | N/A |
| 2300 | 800 – 1350 °F | 660 °F | N/A |
| 2700 | 800 – 1300 °F | 550 °F | N/A |
| 3300 | 800 – 1200 °F | 550 °F | N/A |
| 4430 | 800 – 1100 °F | 575 °F | N/A |
| 4850 | 800 – 1100 °F | 680 °F | N/A |
| 7060 | 800 – 1500 °F | N/A | N/A |
| 7520 | N/A | N/A | N/A |

Free Cutting Brass Alloys***

| Alloy | Annealing Temperature | Recrystallization Temperature | Softening Temperature |
|---|---|---|---|
| C36000 | 800 – 1100 °F | 625 °F | N/A |

- Information from "Aluminum Standards and Data 2000", the Aluminum Association, Section 12 Tube and Pipe.
- Information from "Standards handbook Parts 5 & 6", CDA, Section 5 Product.
- Information from "ASM Metals Handbook, Volume Two, 10th Edition", Pages 310 and 311 Specific Metals and Alloys and Properties of Wrought Copper Alloys.

Attachment to Item 18
Action Item #23

Supplement to – Identify and address potential discrepancies among outdoor cooking standards

- Update of boxed warnings in ANSI Z21.58/CGA1.6 under 1.22.1, Instructions to be consistent with revisions to boxed in ANSI Z21.89/CSA 1.18 outlined in the May 2002 R & C and discussed under Item 8 of this meeting:
  - "FOR YOUR SAFETY" in 1st boxed warning was changed to "DANGER" with the triangular alert symbol.
  - Step 4 in 1st boxed warning was changed to "If odor continues keep away from the appliance and immediately call your gas supplier or your fire department"
  - "FOR YOUR SAFETY" in 2nd boxed warning was changed to "WARNING" with the triangular alert symbol. (Note the contents of the boxed warnings are not exactly the same between both standards)

- Update the cylinder connection device coverage in ANSI Z21.89/CSA 1.18 under 1.6, Self-Contained LP-Gas Supply Systems and 2.9, Performance of LP-Gas Cylinder Connection Devices to be consistent with revisions to these sections in ANSI Z21.58/CGA 1.6 outlined in the May 2002 R & C and discussed under Item 7 of this meeting (Note that the CGA Nos. and the deletion of Figures 1, 2 & 3 was previously addressed as editorial):
  - Delete references to Type I and Type II devices.
  - Replace construction provisions with a reference to compliance with ANSI Z21.81/CSA 6.25
  - Replace performance provisions with a reference to compliance with ANSI Z21.81/CSA 6.25
  - Add coverage for Class I and Class II excess flow devices.

1.6.3 a. A CGA No. 791 ~~(Type I)~~ Cylinder Connection Device and complying with the Standard for *Cylinder Connection Devices, ANSI Z21.81•CSA 6.25*~~clauses 1.6.4, and 1.6.6~~; or

b. A CGA No. 810 ~~(Type II)~~ Cylinder Connection Device and complying with the Standard for *Cylinder Connection Devices, ANSI Z21.81•CSA 6.25* ~~clauses 1.6.4, and 1.6.6~~; or

1.6.4 b. Have a thermal shut-off device complying with the Standard for *Cylinder Connection Devices, ANSI Z21.81•CSA 6.25*; ~~element located on that part of the connection attached to the appliance that will activate at a temperature in the range of 240°F (115.5°C) to 300°F (149°C) and will positively shut~~

~~off the flow of gas at the cylinder valve when tested in accordance with clause 2.9.2 (Thermal Shutoff); and~~

c. Have an excess flow device complying with the Standard for *Cylinder Connection Devices, ANSI Z21.81•CSA 6.25.* ~~Be equipped with a flow limiting device which will close automatically if a hose downstream of the regulator is opened to the atmosphere when tested in accordance with 2.9.3 (Flow Limiting Devices).~~

For appliances with a manufacturer's rated input of 80,000 Btu per hour (23,448 W) and below (with a 5% plus or minus tolerance), Class I excess flow device shall be used. For appliances with a manufacturer's rated input higher than 80,000 Btu per hour (23,448 W) (with a 5% plus or minus tolerance), Class II device may be used.

The by-pass flow rate after the device activates will be the same as 10 scfh (0,28 $m^3$/hr).

2.9 PERFORMANCE OF LP-GAS CYLINDER CONNECTION DEVICES

~~An LP-Gas cylinder connection device shall meet the performance criteria~~ of the Standard for *Cylinder Connection Devices, ANSI Z21.81•CSA 6.25.*

Delete all of 2.9.1, 2.9.2 and 2.9.3

- Update ANSI Z21.89/CSA 1.18 under 1.6, Self-Contained LP-Gas Supply Systems with the two-stage pressure regulator coverage as outlined in the ANSI Z21.58/CGA 1.6 May 2002 R & C and discussed under Item 7 of this meeting:

  1.6.15 Outdoor cooking specialty gas appliances with input ratings exceeding 100,000 Btu/hr shall be equipped with two-stage regulators.

- Once comments on the proposed cylinder label changes are addressed under item 7 of this meeting, and if the resulting coverage can move forward, then the cylinder label in ANSI Z21.89/CSA 1.18 under Exhibit A, LP-Gas Cylinder Label should be updated accordingly.

# Attachment 17

Item 19 – New Business

Proposed Revisions to ANSI Z21.89•CSA 1.18
1.20, Instructions and 1.21 Marking

- ANSI Z535.4 requires the WARNING format to be printed in orange. This is similar to the situation previously discussed for the cylinder label.

- The requirement of 1.6.2 is applicable to appliances that do not incorporate wheels or other means of movement other than lifting. Yet the specific instruction and marking requirements referenced (1.20.2b.11 and 1.21.3) state that the instruction and marking provisions are only applicable to fryer/boilers.

1.20.2b.11. A diagram with dimensions showing the manufacturer's recommended position of the appliance ~~fryer/boiler~~ and its supply cylinder shall be included. At a minimum, the diagram shall be in a WARNING format (except for color) in accordance with *ANSI Z535.4, Product Safety Signs and Labels.*. (See 1.6.2).

1.21.3 Each appliance ~~fryer/boiler~~ shall bear a Class IIIA-2 marking, located where it can be easily read showing the manufacturer's recommended position, including dimensions, of the appliance ~~fryer/boiler~~ and its supply cylinder and a minimum warning level advising the end user of the potential hazard of placing the cylinder too close to the appliance. (See 1.6.2).

# Attachment 18

Item 20 – New Business

Proposed Revisions to ANSI Z21.58•CGA 1.6 and ANSI Z21.89•CSA 1.18

- The new Section 1.15.5 of ANSI Z21.58•CGA 1.6 (b-2002) and Section 1.14.3 of ANSI Z21.89•CSA 1.18 exempt burners for use with cooking vessels from having the housing below the burner constructed to prevent the dropping of incandescent particles. With an open housing, as permitted, and the cylinder located below the burner, the cylinder is not protected from contact by hot liquids that may result from spillage or boil-over.

  When the cylinder is located in an enclosure, section 1.7.3 requires protection from foreign material, such as hot drippings. Should a similar requirement apply if the cylinder is located in the manner described above?

1.6 SELF-CONTAINED LP-GAS SUPPLY SYSTEMS

1.6.new When an LP-gas cylinder is located beneath a burner that is intended for use with a cooking vessel, the design of the appliance shall provide for protection of the cylinder from contact by hot liquids resulting from spills or boil-over.

# Attachment 19

Item 21 – New Business

Proposed Revisions to ANSI Z21.58•CGA 1.6 and ANSI Z21.89•CSA 1.18

- ANSI Z21.58•CGA 1.6 includes provisions for testing manual valves when supply pressures exceed 1/2 psi (sections 1.8.1 and 2.10.2 through 2.10.5).
- ANSI Z21.89•CSA 1.18 6 includes provisions for testing manual valves when supply pressures exceed 1/2 psi (sections 1.8.1 and 2.10.2 through 2.10.5). This standard also includes provisions for testing combination regulator valves operating at outlet pressures less than 1 psi (sections 1.6.3 and 2.13).
- The gas-fired camping equipment standards (ANSI Z21.63•CSA 11.3, ANSI Z21.72•CSA 11.2, and ANSI Z21.73•CSA 11.1) include similar provisions for testing gas controls. However, these standards also include provisions to evaluate the integrity of nonmetallic internal parts used in the construction of these controls.
- The majority of the gas control standards also include similar provisions for evaluating the integrity of such materials.

ANSI Z21.58•CGA 1.6

1.2 GENERAL CONSTRUCTION AND ASSEMBLY

1.2.22 All nonmetallic, internal parts of gas controls (see 1.8.1) shall not crack, harden, swell more than 25 percent, shrink more than 1 percent, loose more than 10 percent weight, or otherwise deteriorate sufficiently to permit leakage or cause malfunction when:

a. Parts made of a compound affected by aging are exposed to air for 70 hours at 212°F (100°C); and

b. Parts are immersed for 70 hours in normal hexane.

1.8 MANUAL GAS VALVES

1.8.1 Manual gas appliance valves on outdoor cooking gas appliances intended for operation at inlet gas pressures not exceeding ½ psi (3.5 kPa) shall comply with the construction provisions of either the Standard for *Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves, ANSI Z21.15•CGA 9.1*, or the Standard for ~~*CAN1-9.1, Manually Operated Gas (Appliance) Shut-Off Valves or*~~ *Combination Gas Controls for Gas Appliances, ANSI Z21.78•CSA* ~~*CGA*~~ *6.20*, as applicable.

Manual gas valves on outdoor cooking gas appliances intended for operation at inlet gas pressure exceeding ½ psi (3.5 kPa) shall be suitable

for the gas and pressures to which they will be exposed. Valve bodies, casings and parts intended to maintain gastightness to the atmosphere when the valve is in either the open or closed position shall be made of material having a melting point of not less than 800°F (427°C). Shaft seals, gaskets and lubricants shall be exempt from the 800°F (427°C) melting point requirement. These valves shall also comply with 1.2.22 and 2.10.2 through 2.10.5.

ANSI Z21.89•CSA 1.18

1.2 GENERAL CONSTRUCTION AND ASSEMBLY

1.2.22 All nonmetallic, internal parts of gas controls (see 1.6.3 and 1.8.1) shall not crack, harden, swell more than 25 percent, shrink more than 1 percent, loose more than 10 percent weight, or otherwise deteriorate sufficiently to permit leakage or cause malfunction when:

a. Parts made of a compound affected by aging are exposed to air for 70 hours at 212°F (100°C); and

b. Parts are immersed for 70 hours in normal hexane.

1.6 SELF-CONTAINED LP-GAS SUPPLY SYSTEMS

1.6.3 An appliance for connection to a self-contained LP-gas supply system shall be equipped with a pressure regulator. The regulator shall comply with the standard for *Pressure Regulating Valves for LP Gas, UL 144*, as a part of the self-contained LP-gas supply system.

Exception: Appliances designed for use with a combination regulator valve with a CGA No. 600 and outlet pressure less than 1 psi (7.0 kPa), intended for use with an LP-gas supply cylinder with a nominal water capacity less than 2.2 pounds (1.00 kg), need not comply with the above requirements, but shall comply with the requirements of 1.2.22 and 2.13 (Combination Regulator Valve – Low Pressure).

*Remainder of 1.6.3, unchanged.*

1.8 MANUAL GAS VALVES

1.8.1 Manual gas appliance valves on appliances intended for operation at inlet gas pressures not exceeding ½ psi (3.5 kPa) shall comply with the construction provisions of either the Standard for *Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves, ANSI Z21.15•CGA 9.1.*

*Proposal- Insert needle valve coverage from as 2nd paragraph instead of 3rd paragraph as originally proposed if adopted for public review by the TAG under Item 9.*

Manual gas valves on appliances not covered by the above requirements and intended for operation at inlet gas pressure exceeding ½ psi (3.5 kPa) shall be suitable for the gas and pressures to which they will be exposed. Valve bodies, casings and parts intended to maintain gastightness to the atmosphere when the valve is in either the open or closed position shall be made of material having a melting point of not less than 800°F (427°C). Shaft seals, gaskets and lubricants shall be exempt from the 800°F (427°C) melting point requirement. These valves shall also comply with 1.2.22 and 2.10.2 through 2.10.5.

# Attachment 20

Item 22 – New Business

Proposed Revisions to ANSI Z21.58•CGA 1.6 and ANSI Z21.89•CSA 1.18

- A new harmonized Standard for Manually Operated Electric Gas Ignition Systems and Components, ANSI Z21.92•CSA 6.29-2001 has been published. The scope of this standard covers battery powered ignition systems.
- Battery powered ignition systems are currently employed on outdoor gas grill designs.
- It is conceivable that these devices could also be employed on outdoor cooking specialty gas appliances.

ANSI Z21.58•CGA 1.6

1.14 BURNER IGNITION

1.14.10 If a manually operated electric ignition system is used for burner ignition, it shall comply with the Standard for *Manually Operated Electric Gas Ignition Systems and Components, ANSI Z21.92•CSA 6.29.*

2.8 IGNITION

2.8.2 An ignition system not listed to the Standard for *Manually-Operated Piezo-Electric Spark Gas Ignition Systems and Components, ANSI Z21.77•CSA 6.23*, shall withstand 10,000 complete cycles of operation with no mechanical or electrical failure.

An electric ignition system not listed to the Standard for *Manually Operated Electric Gas Ignition Systems and Components, ANSI Z21.92•CSA 6.29*, shall withstand 25,000 complete cycles of operation with no mechanical or electrical failure.

Method of Test

By means of a mechanical actuating apparatus or other suitable means, the ignition system shall be operated through 10,000 complete cycles of operation as specified in *ANSI Z21.77•CSA 6.23* or 25,000 complete cycles of operation as specified in *ANSI Z21.92•CSA 6.29*, as applicable.

Upon completion of this test, the ignition system shall meet the provisions outlined in 2.8.1.

A battery-operated ignition system requiring the replacement of a battery or batteries prior to completion of this test shall not be considered as an electrical failure.

1.13 BURNER IGNITION

1.13.10 If a manually operated electric ignition system is used for burner ignition, it shall comply with the Standard for *Manually Operated Electric Gas Ignition Systems and Components, ANSI Z21.92•CSA 6.29.*

2.8 IGNITION

2.8.2 An ignition system not listed to the Standard for *Manually-Operated Piezo-Electric Spark Gas Ignition Systems and Components, ANSI Z21.77•CSA 6.23*, shall withstand 10,000 complete cycles of operation with no mechanical or electrical failure.

An electric ignition system not listed to the Standard for *Manually Operated Electric Gas Ignition Systems and Components, ANSI Z21.92•CSA 6.29*, shall withstand 25,000 complete cycles of operation with no mechanical or electrical failure.

Method of Test

By means of a mechanical actuating apparatus or other suitable means, the ignition system shall be operated through 10,000 complete cycles of operation as specified in *ANSI Z21.77•CSA 6.23* or 25,000 complete cycles of operation as specified in *ANSI Z21.92•CSA 6.29*, as applicable.

Upon completion of this test, the ignition system shall meet the provisions outlined in 2.8.1.

A battery-operated ignition system requiring the replacement of a battery or batteries prior to completion of this test shall not be considered as an electrical failure.