

MEETING LOG
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Accredited National Standard on Performance and
Installation of Gas-Burning Appliances and Related
Accessories, Z21

PLACE: Ritz-Carlton Pentagon City Hotel, Arlington, VA

MEETING DATE: April 11, 1996

LOG ENTRY SOURCE: Donald W. Switzer *DWS*

ENTRY DATE: December 23, 1996

COMMISSION ATTENDEES:

Donald W. Switzer ES

NON-COMMISSION ATTENDEES: See attached Minutes

MEETING SUMMARY

The ANSI Z21 Committee sets performance standards for gas-burning appliances and their installation. Membership consists of experts in gas appliance design and natural and LP-gas fuel distribution, government agencies, and consumer representatives. The minutes of the meeting are attached and accurately report the proceedings.

✓
CPSA 6 (b)(1) Cleared
No Mfrs/PrvtLblrs of
Products Identified
12/24/96
AB

Minutes of
One-Hundred-and-Seventh Meeting of
**ACCREDITED STANDARDS COMMITTEE ON
PERFORMANCE AND INSTALLATION OF GAS-BURNING
APPLIANCES AND RELATED ACCESSORIES, Z21**
April 11, 1996

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One-Hundred-and-Seventh Meeting of

**ACCREDITED STANDARDS COMMITTEE ON
PERFORMANCE AND INSTALLATION OF GAS-BURNING
APPLIANCES AND RELATED ACCESSORIES, Z21**

April 11, 1996

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Minutes of One-Hundred-and-Eighth Meeting

of

**ACCREDITED STANDARDS COMMITTEE ON
PERFORMANCE AND INSTALLATION OF GAS-BURNING
APPLIANCES AND RELATED ACCESSORIES, Z21**

Held at the
Ritz-Carlton Pentagon City Hotel
1250 South Hayes Street
Arlington, Virginia 22202
(Washington, D.C. area)

April 11, 1996

The meeting was called to order at 9:00 A.M., Eastern Daylight Saving Time, Thursday, April 11, 1996.

Chairman: Howard I. Forman
Vice Chairman: Jack D. Rea
Admin. Secretary: Allen J. Callahan

During the course of the meeting, the following were in attendance:

Members Present:

<u>Member</u>	<u>Representative</u>
American Association of Family and Consumer Sciences	Frances Gaily
American Gas Association	Dan Hansen Robert A. Hauserman Jack D. Rea Donald L. Shrader Billy R. Ware Matthew W. Wilber
Association of Home Appliance Manufacturers	Earl T. Rhinehart
American Public Gas Association	Robert S. Cave
Canadian Gas Association	James M. Jones

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U. S. Consumer Product Safety Commission (Liaison - without vote)	Donald W. Switzer
Factory Mutual System	Armand V. Brandao
Gas Appliance Manufacturers Association	Charles W. Adams Daniel J. Canclini Albert B. Chamberlain Jay R. Katchka James Mullen Drew Smith Daniel P. Werner
U.S. Department of Housing and Urban Development	Victor J. Ferrante
Individual Member	Howard I. Forman
Individual Member (Liaison - without vote)	R. Michael Martin
International Association of Plumbing and Mechanical Officials	Jerome Hendrickson
National Association of Plumbing- Heating-Cooling Contractors	Terrell D. Moseley
National Electrical Manufacturers Association	G. E. Willert Alan R. Anderson (Alternate)
National Fire Protection Association	Theodore C. Lemoff
National Propane Gas Association	Bruce J. Swiecicki
Naval Facilities Engineering Command, U.S. Department of the Navy	Danny C. Mui
Underwriters Laboratories	Harry Jones

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Administrative Staff (Non-voting):

Allen J. Callahan, Administrative Secretary
James H. Gazda

Guests:

Paul E. Beach	White-Rodgers Division, Emerson Electric Company
John Crouch	Hearth products Association
Spencer P. Grieco	International Approval Services - U.S., Inc.
Daryl L. Hosler	Southern California Gas Company (Z83 Committee Chairman, and Chairman of the Connector; Automatic Gas Control; Central Furnace and Water Heater Joint Subcommittees)
George Mallinos	International Approval Services - Canada, Inc.
Frank A. Stanonik	Gas Appliance Manufacturers Association, Inc.
Michael S. Wilson	Atlanta Gas Light Company (Chairman, Vented Warm Air Heater Joint Subcommittee)

Members Absent:

<u>Member</u>	<u>Representative</u>
Air Conditioning Contractors of America	James P. Norris
Consumers Union	George A. Papritz
U.S. Department of Defense, Office of Assistant Secretary of Defense (Liaison - without vote)	Gregory E. Saunders

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Gas Appliance Manufacturers
Association

William E. Dalton

General Services Administration

Bruce Geren
Christopher Pollock (Alternate)

National Institute of Standards
and Technology

Walter G. Leight

Opening Comments

Chairman Forman opened the meeting with general comments on the success of the awards reception held the previous evening, and offered recognition and congratulations to the committee and subcommittee members receiving awards. Mr. Lemoff expressed appreciation for his award. Appendix A to these minutes contains a list of this year's awardees.

Chairman Forman introduced new members to the Committee, Messrs. Donald L. Schrader and Matthew Wilber representing the American Gas Association, and introduced the members of the Chairman's Advisory Committee. The Committee acknowledged the new members with a round of applause.

Committee members, staff and other guests were then requested to introduce themselves and identify their affiliations.

For ease of managing the agenda, this year it was divided into two categories: items requiring action (items 1 - 9) and informational items (items 10 - 14).

ITEM 1. Approval of Minutes

The minutes of the April 6, 1995 meeting of the Committee were approved as recorded.

ITEM 2. Proposed Title and Scope of the Joint Subcommittee Addressing Appliance Gas Controls

Subject

The Committee was asked to approve the proposed title and proposed scope for the joint automatic gas controls subcommittee.

History

The Committee, at its April 6, 1995 meeting approved the merging of its automatic gas control and thermostat and automatic gas ignition systems subcommittees into one subcommittee.

Background

At its first meeting, held July 15, 1995, the newly merged subcommittee recommended to the Z21 Committee and CGA Standards Steering Committee a proposed title and scope as shown in Appendix B to these minutes. The joint subcommittee recommended that the scope of the joint subcommittee include the titles of all the standards under its supervision.

Action

Mr. Hosler, Chairman of the joint subcommittee, presented this item to the Committee. The Committee members present unanimously approved the title and scope as shown in Appendix B.

**Item 3. Proposed Revisions to the Scope of the
Z21/CGA Joint Manual Valve Subcommittee**

Subject

The Committee was asked to approve a revised scope for the manual valve subcommittee to include gas convenience outlets. The Committee was also presented a request for clarification of a previous question raised by the CGA Standards Steering Committee relative to interchangeability of gas convenience outlets.

Action

The Committee members present unanimously approved the revised scope for the joint manual gas valve subcommittee. It was also agreed that the subcommittee's request to clarify the question regarding interchangeability would have to be addressed by the CGA Standards Steering Committee.

**Item 4. Proposal to Develop a New American National/Canadian
Gas Association Standard for Vented Gas Fireplace Heaters**

Subject

Approve a recommendation of the joint vented warm air heater subcommittee to develop a new standard for fireplace heaters.

Background

The joint subcommittee, at its October 1995 meeting, made the recommendation to develop a new standard taking into consideration that fireplace heaters can provide zone heating in addition to the esthetics or decorative attributes of such an appliance. It was anticipated the new standard would be developed using the proposed harmonized vented heater standard, Z21.86/CGA 2.32, and the harmonized decorative appliance standard, Z21.50/CGA 2.22. The standard would also include coverage for ducting of heat to areas remote from the appliance.

Action

The members of the Committee present at the meeting unanimously approved the joint subcommittee's recommendation that it undertake the development of a new standard for gas fireplace heaters. Members absent from the meeting will be balloted by letter for their approval to develop the new standard.

ITEM 5. Proposed Harmonized American National Standard/Canadian Gas Association Standard for Connectors for Moveable Gas Appliances, Z21.69/CGA 6.16

Subject

Approve the proposed standard for moveable appliance connectors.

Background

The proposed standard was prepared by the joint Z21/CGA connector subcommittee, based on the existing ANSI Z21.69 standard, for recommendation to the Z21 Committee and CGA Standards Steering Committee.

Discussion

Mr. Switzer questioned coverage under 1.4.5 which allows brazing of end fittings to the tubing. He noted that similar coverage had been deleted from the metal connector standard, Z21.24.

In response, it was commented that connectors covered by the Z21.69 standard are larger than those covered by Z21.24 and that the subcommittee has not been aware of any problems with separation of end fittings. The subcommittee would be considering the matter further at its next meeting. Mr. Switzer commented that the coverage be deleted from the standard pending consideration by the subcommittee. In response it was commented that the Committee should not delete coverage at random. Regarding another question it was commented that on connectors covered by the Z21.24 standard the tubing is one piece with the end flared to retain the end fitting.

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Action

The Committee members present unanimously approved the proposed harmonized standard for recommendation to the American National Standards Institute for approval as an American National Standard. Members absent from the meeting will be balloted by letter for their approval of the proposed standard.

Item 6. Revisions to American National Standard for Gas-Fired Room Heaters, Volume II, Unvented Room Heaters, ANSI Z21.11.2

Subject

The Committee considered proposed revisions to the unvented room heater standard, Z21.11.2, as recommended by the subcommittee by letter ballot dated January 30, 1996.

Discussion

Staff Note: The following discussion took place during consideration of this item. It resulted from a comment made at the time, but does not directly relate to any proposed revisions to the unvented room heater standard, Z21.11.2, presented to the Committee under this item. It is reported here as a matter of record.

Mr. Lemoff commented on an instruction statement on conversion kits used to convert an appliance from one gas to another. (Please refer to the minutes of the Committee's April 6, 1995 meeting for additional background on this issue.) Mr. Lemoff reiterated his objection and made a motion that reference to "responsibility" be deleted as it applies to the installer (qualified service agency).

During discussion of Mr. Lemoff's motion members responded that if the qualified service agency is hired to make the conversion the agency is responsible to see that the conversion is done in accordance with the manufacturer's instructions. It was stated that there is benefit in providing this information and that it is only stating fact. Another member commented that this is a safety issue and he would be hesitant to change any wording.

Mr. Lemoff's motion was defeated by a vote of two approving and twenty-four disapproving votes.

Action

Following the above discussions, the members of the Committee present at the meeting approved the proposed revisions to the standard and the accompanying rationale statements as recommended by the subcommittee.

Item 7. Comments on Proposed Standards Revisions

Subject

The Committee reviewed and acted on comments received on July 17, 1995 and January 31, 1996 letter ballots of the Committee.

Background

In accordance with operating procedures of the American National Standards Institute and the Committee, comments received from members of the Committee on standards proposals are presented to the membership for consideration. Comments accompanying approving votes would be submitted to the supervising subcommittee for consideration. Editorial corrections identified by the commentators would be corrected by staff before final printing of the standard.

Discussions

Pertinent discussions that took place at this meeting are recorded below.

July 17, 1995 Letter Ballot

The summary of the letter ballot dated September 29, 1995 was presented with this agenda item.

Attachment Standard

- 2 **Proposed revisions to the Unvented Room Heater Standard, Z21.11.2, dated October 1994.**

Four disapproving votes were cast on proposed revisions to the unvented room heater standard, Z21.11.2. Disapproving votes were cast by Messrs. Hendrickson, Katchka, Moseley and Swenson (Mr. Swenson has retired and is no longer on the Committee).

Messrs. Hendrickson and Moseley submitted comments on paragraph 1.19.4 regarding a proposed "boxed" warning statement to appear in instructions accompanying an appliance. They recommended that the second sentence of the statement be revised as follows (underlined words added):

"Provisions for adequate combustion and ventilation air must be provided or personal injury or loss of life may result."

Mr. Moseley introduced this matter earlier in the meeting under Item 6. Mr. Moseley commented that it appears there may be some inconsistencies in the

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warning statement (under "Instructions") in the various Z21 series standards, i.e., that if the information is not followed exactly fire or explosion could result causing property damage, personal injury or loss of life. Mr. Moseley suggested that the Chairman's Advisory Committee may want to review the coverage in the applicable standards for consistency.

Messrs. Hendrickson and Moseley had also commented that, under "Instructions," proposed 1.19.4 specifies that provisions for combustion and ventilation air be provided while 1.19.3-g proposes that for heaters installed in fireplaces provisions for outside air be permanently closed at the time of installation. They recommended that proposed 1.19.3-g be deleted since openings in the fireplace are one means of providing combustion and ventilation air. Mr. Moseley also commented at the meeting that proposed 1.19.3-g is inconsistent with the National Fuel Gas Code, ANSI Z223.1.

During discussion, it was noted that the subcommittee's action was based on trying to address installations of log heaters with oxygen depletion safety shutoff systems (ODS) in fireplaces and the possibility that air movement could affect the ODS systems operation. Another member commented that this may be a nuisance problem and by trying to correct it the result may be a safety issue. It was suggested that the Committee may want to send the proposal back to the subcommittee for further consideration. Regarding this point, it was commented that part of the subcommittee's intent was to close any openings in the fireplace to the outside so that the ODS system would be sensing the room air. Furthermore, it was noted that proposed 1.19.3-g is not in conflict with either proposed 1.19.4 or the Z223.1 code since combustion and ventilation air can be drawn from other sources than openings in the fireplace.

A motion was made to send all the proposed changes to the Z21.11.2 standard to the American National Standards Institute (ANSI) for consideration of approval, with the stipulation that the subcommittee also review the issue relative to proposed 1.19.3-g and 1.19.4. A summary of all the discussions on Messrs. Hendrickson's and Moseley's comments would be presented to the unvented heater subcommittee. The motion was unanimously approved.

Mr. Katchka objected to deleting the 4.0 inches water column combustion test (2.4.3). He had stated in his comments that the rationale (i.e., that with fixed-setting regulators now on all unvented heaters lower than specified manifold pressures will not result) does not justify the subcommittee's action. Mr. Katchka commented at the meeting that if the available inlet pressure is 4.0 inches there will still be a pressure drop (through the controls) which can result in lower than specified manifold gas pressures.

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A motion was unanimously approved to return the proposal to delete present 2.4.3 and to return the accompanying rationale statement to the unvented heater subcommittee for further consideration.

Mr. Swenson commented on proposed 1.19.4, Instruction, concerning providing adequate air for combustion and ventilation, stating that the instruction does not go far enough. He recommended that a permanent marking on the appliance for adequate air should also be provided. It was clarified that such a marking "warning" requirement is being specified under proposed 1.20.9. No further action was deemed necessary.

January 31, 1996 Letter Ballot

It was reported that the letter ballot would be closed March 7, 1996 and a summary of any comments received with "approving," "disapproving" and "abstaining" votes would be provided in the ballot summary to be available during consideration of this item. The letter ballot addressed proposed revisions to twenty standards.

A letter ballot summary dated March 28, 1996, with modification of April 3, 1996, was provided. It was reported that comment accompanying a disapproving vote on Attachment 4 to the ballot on proposed revisions to the ignitions systems standard, Z21.20, would be presented to the Committee for consideration. Comments accompanying approving votes on Attachments 10, 11 and 16 through 19. Comment was also received on the proposed revisions to the recreational vehicle cooking appliance standard, Z21.57.

Attachment Standard

2

Proposed Revisions to the Recreational Vehicle Cooking Appliance Standard, ANSI Z21.57, dated September 1994

Mr. R. Michael Martin commented on the proposed deletion of the top burner thermal efficiency test, 2.12. He questioned the rationale which noted that other UL and CGA recreational vehicle gas cooking appliance standards, UL electric range standard and Z21.1 gas range standard do not contain top burner efficiency tests, the latter of which was deleted when the U.S. Department of Energy (DOE) proposed efficiency regulations. Mr. Martin opposed the proposed deletion of 2.12 in that he was concerned lower efficiency appliances could begin to appear on the market, and it is preferred that the industry be self policing and regulating. He requested that the proposed change be returned to the subcommittee for further consideration.

During discussion, it was commented that the subcommittee did not believe the test is necessary anymore in light of the above information. It was also noted that recreational vehicle ranges are not covered by NAECA regulations. It was noted that most of the standards cover both safety and performance.

A motion to send the proposed deletion back to the subcommittee for further consideration on the basis that the rationale is not complete, failed by a vote of 12 approve, 8 disapprove and 2 abstentions. Mr. Martin commented that he was not pleased with the result but recognized the prerogative of the Committee.

4

Proposed Revisions to the Automatic Gas Ignitions Systems and Components Standard, ANSI Z21.20, dated April 1995

Mr. Canclini did not agree with the proposed changes to section 2.11.2 for safety circuit analysis providing coverage for safety-related software. His objections to proposed 2.11.2 were based on its requiring compliance with UL 1998 which he indicated is vague on pass/fail criteria and definition of procedures. The Committee editorially modified 2.11.2 consistent with the stated rationale that UL 1998 provides a process for "evaluation," as follows:

"2.11.2 Controls employing safety-related software shall be evaluated using UL 1998, with the exception of 1.6."

Mr. Canclini indicated that the action of the Committee was responsive to his concerns and he would withdraw his disapproving vote.

Item 8. Chairman's Review of Various Standards Activities

Department of Energy (DOE) Workshop

Chairman Forman reported that a fifth workshop was held in February 1996 aimed at improving the process for DOE standards development. He indicated it was well attended by the gas industry, but regretted that ANSI was not represented. Circular A-119 developed under the U.S. Department of Commerce, of which Chairman Forman while with Commerce was an author of the original document, was not included as part of the workshop. Circular A-119 promotes the use of voluntary or private sector standards development and provides for government participation. There was no indication relative to including information on Circular A-119 in future workshops.

Mr. Ferrante commented that possibly something more definitive will be coming out that would make A-119 statutory.* Mr. Martin commented that he believed the intent of the workshops has been to improve its own system, and to involve the private sector. (* On March 7, 1996 the statutory version of Circular A-119 became law, P.L. 104-113.)

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No action was taken on this subject of information.

Combining the Z21 and Z83 Committees

Subject

The Committee was asked to consider and act on recommendation to merge the Z21 and Z83 Committees into a single committee to oversee the Z21 and Z83 series standards projects.

Background

Material provided with the agenda included January 24 and February 29, 1996 correspondence from Chairman Forman relative to the election of officers and three resolutions: A) to merge the two committees, B) elect a chairman and a vice-chairman to serve a one-year "bridging" term from April 1997 to April 1998, and C) a timetable for electing the officers by the existing Z21 and Z83 Committees' memberships consistent with their procedures.

Also provided with the agenda was information on the formations of the Z21 and Z83 projects, and a summary or background on activities leading to considering the merging of the two committees. Under strategic planning and reengineering activities the concept of merging the Z21, Z83 and CGA standards committees had been considered. It was reported that the original goal had been to work toward a merger in which the three committees would be combined into a single, bi-national committee.

The Committee considered information that during the reengineering activity a review group of interested U.S. and Canadian parties evolved. This group met most recently in January 1996 in Arlington, Virginia. The group concluded that there are some basic differences in U.S. and Canadian processes which would make it difficult to combine all three committees by a single merger. In the review group's discussions it had been noted that the Canadian Gas Association is the recognized standards developer in Canada under Standards Council of Canada (SCC) procedures. CGA has the responsibility to assure due process and consensus. Questions were raised relative to voting at meetings and possibly having separate U.S. and Canadian votes to assure autonomy. Other stated examples of issues included providing U.S. and Canadian membership balance, and that there are standards in each country that are not common to both countries. The review group concluded that it appeared more feasible to recommend first merging the Z21 and Z83 Committees. At some future time the U.S. and Canadian committees could consider further merging into a bi-national committee. It was anticipated that the merged Z21/Z83 Committee and the CGA Standards Steering Committee would coordinate activities possibly to the extent of common meeting dates and agendas where applicable.

The review group recommended to the Z21 and Z83 Committees that they pursue merging the two U.S. committees at this time.

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Discussion

Chairman Forman opened discussion summarizing the three resolutions noted above. He also indicated that this would be his last term as Chairman and it appeared timely that new interests carry on the merging of the standards committees. He indicated his support for merging the committees. The Chairman's Advisory Committee had, at its April 10 meeting, also expressed its support for merging the Z21 and Z83 Committees. A fourth resolution relative to the merger resulting from actions at the Z83 Committee's April 10 meeting, was introduced by Chairman Forman at this time:

Chairman Forman commented that it is very important to start working very shortly to resolve any issues affecting first the merger of the Z21 and Z83 Committees, and next the merger of that merged committee with the Canadian CGA Standards Steering Committee.

It was reported at its April 10, 1996 meeting the Z83 Committee was provided the identical information as provided to the Z21 Committee under Item 8. The Z83 Committee approved two motions. Resolution A to merge the two committees was approved, along with the following motion:

"The Z21 and Z83 Committees will next meet jointly on (or about) April 7, 1997 with the principal item of business being the election of officers for the merged (new) committee. With the new committee in place it will proceed with consideration of the remainder of the agenda."

Chairman Forman introduced this latter action of the Z83 Committee as a fourth resolution to be placed before the Z21 Committee for consideration.

In continuing discussion several points were brought out. The Z83 Committee did not approve Resolution B for a one year "bridging period" for the (to-be) newly elected officers. It had agreed that a bridging period to establish the merger and address any potential issues was unnecessary. The new committee would have the option at any time to re-examine the merger or to also consider merging with the CGA Standards Steering Committee. A nominating committee to review nominations for the offices of chairman and vice chairman would be selected from among the Z21 and Z83 Committee's memberships. The two U.S. committees' memberships would be merged together and examined for compliance with balance requirements of ANSI.

It was expected there would be no problems with such a merger. The two projects' standards, Z21 and Z83, would remain separate under the supervision of one committee. The subcommittees would continue to operate without change in procedures. There had never been a clear division in the type standards supervised under the Z21 project which includes residential as well as some commercial product standards. The control standards under Z21 are used on products covered by the Z83 standards. Regarding having a bridging period for the officers, it was noted the committee would have the option to remove an officer at any time if there were a problem. However, it was

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also noted that it was extremely unlikely that such a problem would occur. Also, the American National Standards Institute had been contacted by the administrative secretary. ANSI had no problems with one committee having oversight for two projects. Since the Z21 and Z83 Committees' operating procedures are essentially identical (the Z21 procedures provide the option for a Chairman's Advisory Committee whereas the Z83 procedures do not), ANSI only asked that it be advised regarding the title of the new committee and which procedures would be used.

Following the above discussion, the Z21 Committee considered each resolution separately. **Resolution A** from Chairman Forman's February 29 letter to merge the two committees was unanimously approved. A motion to approve **Resolution B** in Chairman Forman's letter was withdrawn following further discussion. It was reiterated that the merged committee could consider dissolving the merger at any time. Also the existing procedures provide for three year terms for the elected officers. Chairman Forman indicated he believed it would be a mistake not to provide a one year bridging period for the newly elected officers, during which time they could develop for the merged U.S. Committee, a plan of action designed to lead to a merger of the CGA Standards Steering Committee with the U.S. committee, possibly by the end of the bridging year. Chairman Forman's **Resolution C** in his February 29 letter was approved unanimously, modified to delete portions relevant to a bridging period, as follows: "It is further proposed that the nominations and elections of the officers be conducted by the present administration of the Z21 and Z83 Committees in accordance with the timetable set forth on page 1 of the attached FAX to Mr. Callahan dated January 24, 1996 so that they will be empowered to take office upon election." The **fourth resolution** introduced from the Z83 Committee by Chairman Forman, as noted above, was also unanimously approved by the Z21 Committee.

ITEM 9. Proposed "Guidelines for the Design and Use of Graphic Symbols and Communications Protocol for Gas Appliances and Accessories"

Subject

The Z21 Committee was asked to approve as guidelines a proposed (2nd draft) "North American Multi-Language Communication Protocol for Gas-Fired Appliances and Accessories Markings and Instructions."

Background

As a result of its July and November 1995 and January 1996 meetings, the Joint Z21/Z83/CGA Ad Hoc Advisory Group on Graphic Symbols and Communications Protocols recommended the proposed guideline to the parent Z21 Committee, Z83 Committee and CGA Standards Steering Committee.

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The chairman of the ad hoc advisory group had also submitted to the chairmen of the three committees a "Chair's Report" dated April 4, 1996.

It was reported that the Z21 Chairman's Advisory Committee had considered this item at its April 10, 1996 meeting for recommendations to the Z21 Committee. The Z83 had also considered this matter as an item of business at its April 10 meeting as well.

It was reported that at the Chairman's Advisory Committee's meeting questions were raised on whether the document was ready for approval, and if the ad hoc advisory group was operating within the bounds of its assignment. It was suggested that the function of the ad hoc advisory group is to prepare recommendations for providing graphic symbols for markings and instructions required by the standards, to be considered by the various subcommittees, and that the document should not be a subject for approval by the parent committees in the U.S. and Canada at this time. The chairman's report indicated there are outstanding issues that, it was believed, should be addressed by the ad hoc group. Mr. Switzer had indicated that he would ask CPSC's human factors group to review the draft for comments. It was also noted that while the ad hoc group appears to have exceeded its assignment, it also appears it has identified some reasonable symbols for consideration.

The Z21 Chairman's Advisory Committee recommended to the Z21 Committee that the ad hoc advisory group complete its assignment and that recommendations of the ad hoc group then be presented to all applicable subcommittees for consideration. Mr. Jones, Chairman of the CGA Standards Committee, indicated his concurrence with the recommendation, and indicated he would make a similar recommendation to the CGA Standards Steering Committee.

Since IAS Canada has the lead responsibility for servicing the graphic symbols ad hoc group's activity. Mr. Mallinos, Manager of Standards, IAS Canada, was asked to draft a letter to the ad hoc group regarding the Z21 Chairman's Advisory Committee's recommendation.

The Z83 Committee had concurred with the approach that the ad hoc group complete its assignment by addressing the issues raised in its chairman's report, and that Mr. Mallinos prepare a letter for the signatures of the three parent committees' chairmen to the ad hoc group as noted above.

Discussion

During discussion it was brought out that there remains a real need to standardize the use of symbols to facilitate multi-language markings and instructions. It was also noted that the symbols included in the draft protocol to date are applicable and are being used to some degrees. At the same time it was recognized that extensive work remains to complete the task and that it is appropriate that such guidelines be considered by the affected technical subcommittees. It was also commented that presenting the documents for parent committee approval could cause misinterpretation that the information has some status beyond that of guidelines to the subcommittees.

Conclusion

A motion to take no action to approve the proposed second draft protocol, passed unanimously. It was also agreed the next step would be that Mr. Mallinos prepare a draft letter to the ad hoc group for review and signature (once approved) by the chairmen of the three parent committees.

**Item 10. Status of Proposed Appendix A to the Standard for
Performance testing and rating of Gas-Fired Air
Conditioning and Heat Pumping Appliances, ANSI Z21.40.4•CGA 2.94**

Item 11. Resume of Z21 Standards Activities

Item 12. Status report on harmonization

**Item 13. GRI Funding program for Standards
Test Methods development**

As noted in the "Opening Comments" these four items (and Item 14) were presented on the agenda as informational items. Chairman Forman assumed each member had independently reviewed information items 10, 11, 12 and 13 outside this meeting and, therefore, due to time constraints to address business matters requiring Committee action at this time the Committee would not review them during the course of the meeting unless asked to do so. Regarding Item 13, a summary status report has been included in Appendix C to these minutes.

Other Business

Review Definitions in Z21 Standards

Mr. Lemoff requested that each subcommittee be instructed to review the definitions in the standards under their supervision, with guidance from the secretariat staff, to revise the definitions so as to remove any requirements.

It was explained that the Z223 Committee on the National Fuel Gas Code had considered recommendations to editorially modify the definitions appearing in the code. Since it was agreed that the definitions came from the equipment standards it would be more appropriate to ask that the Z21 and Z83 activities review the definitions. Comment was made that the proposal needed to be narrower in scope. If each subcommittee reviews the definitions in the standards as proposed, the subcommittees could easily end up going in many different directions.

With the understanding that the subcommittees would be asked only to look at the definitions where it had been pointed out to the Z223 Committee that there may be problems, the motion carried.

Mr. Lemoff also noted that definitions often include main and several subsidiary definitions, and other groups such as the Fuel Gas Code Committee should be able to extract for reference the main definition. Mr. Lemoff motioned that other groups be allowed to extract the main definitions. It was agreed that the subsidiary definitions, such as in the definition for central furnaces, are appropriate to the equipment standards but may not be necessary in the code. The motion carried with one abstention by Mr. Adams. He thought it would probably be acceptable to extract only the main definition but wanted to be able to review the subsidiary definitions.

Item 14. Time and Place of Future Meetings

It was agreed the Z21 and Z83 Committees would next meet in April 1997, at which time the election of officers of the merged committee would take place and the conduct of the meeting of the merged committee would proceed under the newly elected officers stewardship.

There being no further business before the Committee, Chairman Forman thanked the members and guests for their cooperation, and adjourned the meeting at 3:10 PM.

ALLEN J. CALLAHAN
Administrative Secretary

April 11, 1996

APPENDIX A

to

MINUTES OF THE Z21 COMMITTEE MEETING

held

APRIL 11, 1996

Z21 AWARD RECIPIENTS FOR 1996

LONG-TERM SERVICE AWARD (4)

<u>Name</u>	<u>Group</u>	<u>Appointed</u>	<u>Off</u>
Joe A. Akin Jr. Alabama Gas Company	Water Heaters	4/26/85	-
James Brown U.S. Brass	Connectors	1/20/86	6/22/95
Alec E. Ecobichon Elizabethtown Gas Co.	Ranges	7/25/85	-
Theodore C. Lemoff National Fire Protection Association	Z21 Committee	5/10/85	-

SERVICE AWARDS (12)

<u>Name</u>	<u>Group</u>	<u>Appointed</u>	<u>Off</u>
Charles L. Garretson York International	Air Conditioners	5/16/91	6/29/95

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Joseph A. Gauer Whirlpool Corporation	Clothes Dryers	8/4/89	5/15/95
Michael E. Griffin Baltimore Gas & Electric Company	Z21 Committee	9/29/88	7/95
Robert E. Hamos PVI Industries	Water Heaters	7/1/89	6/22/95
Perry M. Johnson Southeastern Michigan Gas Company	Clothes Dryers	1988	2/9/95 2/95
Kent A. Keeney United Technologies	Thermostats & Automatic Ignition Systems	11/8/90	11/30/95
Carl H. Kolb Wayne Home Equipment A Scott Fetzer Company	Conversion Burners	8/7/89	6/22/95
James E. Kovacs (formerly with Hunter Orillia)	Decorative Appliances Vented Heaters	1991	11/14/95
R. F. Marson Centra Gas Ontario, Inc.	Central Furnaces	1991	8/9/95
Richard W. Olmstead Watts Regulator Company	Relief Valves	2/29/90	8/25/95
Gale A. Schmidt HydroFlame Corp./ Atwood Mobile Products	Central Furnaces	2/5/92	2/21/95
Jim C. Smelcer Rheem Manufacturing Co.	Central Furnaces	8/8/91	8/8/95

April 11, 1996

APPENDIX B

to

MINUTES OF THE Z21 COMMITTEE MEETING

held

APRIL 11, 1996

**PROPOSED TITLE AND SCOPE OF THE JOINT SUBCOMMITTEE
ADDRESSING APPLIANCE GAS CONTROLS**

(See Agenda Item 2)

**TITLE: "JOINT SUBCOMMITTEE ON STANDARDS FOR
AUTOMATIC GAS CONTROLS."**

SCOPE: Preparation and Maintenance of Standards for:

- 1: Automatic Gas Ignition Systems and Components Z21 20 and CGA 6.4
- 2: Automatic Intermittent Pilot Ignition Systems
For Field Installation Z21.77
- 3: Automatic Valves for Gas Appliances Z21.21•CGA 6.5
- 4: Combination Controls for Gas Appliances Z21.78•CGA 6.20
- 5: Gas Appliance Thermostats Z21.23 and CGA 6.6
- 6: Gas Valves within the Scope of CGA 3.9
- 7: Manually Operated Piezo-Electric Spark
Gas Ignition Systems Z21.77•CGA 6.23
- 8: Line Pressure Regulators Z21.80•CGA 6.22
- 9: Pilot Gas Filters Z21.35•CGA 6.8
- 10: Pressure Regulators for Gas Appliances Z21.18•CGA 6.3
- 11: Sediment Traps Z21.79•CGA 6.21

APPENDIX C

to

MINUTES OF THE Z21 COMMITTEE MEETING

held

APRIL 11, 1996

**GRI FUNDING PROGRAM FOR STANDARDS
TEST METHODS DEVELOPMENT**

The following is a list of GRI projects in order of priority as assigned by the project panel. Updates are provided under those projects whose status has changed since the Committee's April 1995 meeting.

APPROVED PROJECTS

I. *Further Develop a Standardized and Universally Accepted Wind Test Procedure*

As reported at the April 1995 meeting funding under the GRI Venting Project was reallocated to address field problems with high temperature plastic vent pipe. The wind test work may be initiated at some future date if priorities, as established by GRI's Venting Program Manager and TAG, permit.

and

Evaluate Proposed Categorization Coverage for Water Heating Appliances

Interim results were reported to GRI's Venting TAG at a March 3, 1995 meeting. Battelle - Columbus, Ohio, at the direction of GRI's Venting Program Manager, was conducting additional analysis as suggested by the TAG.

Update: It is anticipated that the draft report on the additional analysis suggested by the project's TAG will be available in the near future. Once received a working group of the joint Z21/CGA water heater subcommittee will review the report and make recommendations to the subcommittee for consideration at its June 1996 meeting.

April 11, 1996

II. *Makeup air heater ventilation*

As reported at the April 1995 meeting discussions are underway with GRI's team Leader for Environmental and Safety Issues.

PROJECTS COMPLETED

Develop a test method investigation project on the effects of "high altitude" on the operation of gas appliances.

Develop a standardized and universally accepted test method(s) for measuring the total output of radiant energy from gas-fired infrared heaters.

Additional Information

Test method investigation project on the effects of "high altitude" on the operation of gas appliances. (Completed Project.)

At the Z21 Committee's April 1995 meeting it was noted that the preliminary report on the High Altitude Project had generated several questions and concerns, many of which were raised at a September 1994 meeting of the Z21/CGA joint central furnace subcommittee. It was suggested that any unresolved issues be sent back to the appropriate subcommittee and, if necessary, have that group develop a new work statement(s) to address unresolved issues.

Update: At its September 13-14, 1995 meeting the Z21/CGA joint central furnace subcommittee agreed to further review the final GRI report on this project and the original work statement to determine which issues need to be addressed. Further discussion is slated for the joint subcommittee's November 1996 meeting. It is anticipated that a new work statement will be developed to address unresolved issues.