storage. It was noted that such requirements may not be in the Uniform Fire Code, but in other standards covering gasoline containers. It was agreed that the appropriate standards/codes covering this subject should be identified and reviewed.

It was noted that only part of the flammable vapor ignition concern is currently being considered by focusing on the design of the water heater. It was commented that such narrow consideration will not be as effective as addressing the concern pertaining to all aspects associated with flammable liquids. This should involve all responsible organizations and companies associated with the subject, including standard/code development bodies and the respective enforcement agencies. Mr. Fandey agreed to inform CPSC Staff of the above noted aspects of this concern. However, he noted that CPSC presently does not have a "fire team," as in the past. Based on this, he was not certain how the other aspects of the problem noted above can be evaluated by CPSC. It was noted that if it is determined that these other aspects cannot be addressed, then the working group will have to reevaluate the situation relative to the water heater. Mr. Fandey noted that the consumer is not aware of the situation involving the vapors associated with handling flammable liquids.

It was agreed that the concern extends beyond the water heater subject. Based on this, it was agreed that appropriate education must be initiated and continued on all fronts by all responsible parties, including the gasoline supplier, the gas container manufacturer, etc.

Alternative Fuels

It was reported that CPSC staff has no present plans to consider ignition characteristics of alternative fuels (methanol, etc) and their impact on the subject of ignition of flammable vapors. For the present time, it was agreed that the working group and CPSC should concentrate on gasoline fuel.

CPSC In-Depth Investigations (IDI's)

Mr. Fandey reported that the CPSC had completed 41 In-Depth Investigations (IDI's) regarding water heaters involved in flammable vapor ignition accidents. Mr. Fandey commented that out of 41 IDI's, only 4 contain information regarding the height of the water heater combustion air intake. It was questioned if the location of the air intake should be interpreted as correlating with the location of the burner and burner ignition source.

It was reported that the CPSC IDI's are not based on an engineering approach and only address the water heater's involvement and no other aspects. The IDI's contain interviews with respect to the water heater being the origin of the fire/accident and are based on fire official's opinions. Mr. Fandey replied that the affected victims are interviewed (in person or by phone), in addition to the fire official involved with the incident. Mr. Fandey agreed to provide all 41 IDI's on this subject for the working group's review.
Characteristics of Spilled Flammable Vapors

It was questioned whether gasoline vapors are heavier-than-air and always stay "near the floor," as indicated in one of the attached memos in the CPSC Position Paper, or are diffused into the air. Many in attendance agreed that the CPSC statement was not totally accurate in that such vapors do eventually diffuse into the air (from the bottom up), and therefore do not stay stationary "near the floor."

It was commented that if a water heater is elevated in a location where flammable liquids may be stored nearby at an elevated height, the water heater elevation would not be effective in this case.

Chairman Hosler directed staff to contact the NFPA, the American Petroleum Institute, the Society of Automotive Engineers, the American Society for Testing and Materials, and other appropriate organizations, to obtain general data on characteristics of spilled gasoline. In addition, Chairman Hosler directed staff to coordinate with Mr. Fandey on the CPSC Staff's project to study Lower Explosive Limits (LEL) and available data on gasoline spill characteristics. When the project is completed, the CPSC plans to issue a paper on the results.

CPSC Analysis and Estimate of Economic Benefits

Mr. Fandey was asked to clarify the CPSC estimation of benefits which indicates that if the entire production of water heaters could be affected, and if the changes were fully effective, the injury reduction rate would accumulate up to 2 deaths per year. Mr. Fandey noted that this appeared to be accurate and would be accumulative, based on the available data. However, Mr. Fandey pointed out that if the design changes were only 50 percent effective and cost 50 dollars, it would not appear to be cost effective.

It was questioned if additional information is needed on the CPSC cost estimates. It was noted that if the problem is determined to be regionally based, the cost effectiveness will only impact the affected region.

It was questioned how the CPSC estimate of a 40 - 60 dollar benefit per household over the expected 11-year life of the water heater was determined. Mr. Fandey replied that the exact dollar amount will depend on how effective the design change is. He noted that if the cost of changing the water heater is above the 40-60 dollar range, it does not appear to be cost effective. It was pointed out that the estimated costs may be higher than the CPSC estimate, depending on the type of design employed and its related installation costs.

It was discussed whether the CPSC economic evaluation was based on data supplied by Mr. Downing. Mr. Fandey replied that the economic evaluation was based in part on Mr. Downing's supplied data and on the NFPA/NFIRS data.

Chairman Hosler pointed out that the working group is not debating water heater cost issues, but commenting on the CPSC data on cost effectiveness, which is part of the CPSC process and Position Paper. Since the working group
had discussed this aspect within the context of the Position Paper, Chairman Hosler requested the working group to continue with other considerations.

Noted Inaccuracies in CPSC Position Paper

Several members noted some inaccuracies in the CPSC Position Paper and attached internal memos. It was questioned if the Paper is available for public use. Mr. Fandey responded that the Position Paper has been cleared and is available for public use. It was commented that the CPSC Position Paper, with its inaccuracies, might be improperly relied upon by others. Mr. Fandey noted that he does not currently plan to issue any "corrections," and that if an individual or group takes exception to some of the information in the CPSC Paper, they should notify him in writing. He noted that CPSC staff is trying to work with the working group on this issue, irrespective of the content in the CPSC Position Paper. It was pointed out that the minutes of this meeting will ultimately be available for public information.

Effectiveness of Flammable Vapors Warning Label

It was noted that the one of the CPSC memos indicates that only a design change will address this issue and that warning labels will not fully prevent such incidents. Mr. Fandey replied that because most consumers do not install their own water heaters, the consumer is not always aware of the appliance's instructions or labels and may not read them. He noted that this is especially true when the consumer is handling flammable liquids, which is unrelated to the gas water heater's installation. Mr. Fandey pointed out that the intent of the CPSC memo is that a warning label is not an acceptable substitute for a design to help prevent such incidents. He further noted that a performance-based requirement addressing the concern might be sought, rather than a specific design-based requirement. The intent of such a requirement would be to reduce injuries and deaths by replacing existing water heaters in the field with the new water heaters that have been proven by testing to address the hazard.

CPSC Recommendation for Testing Research

Mr. Fandey suggested a test protocol needs to be established to evaluate flammable vapor ignition by gas water heaters. Several members suggested that an independent testing laboratory should conduct such research, independent from CPSC, water heater manufacturers, etc. It was further suggested that the working group/subcommittee request such a research testing program funded by the Gas Research Institute.

Mr. Fandey noted that if a performance test is developed to verify that all water heater designs will not cause flammable vapor ignition, CPSC's principle concern will be addressed. It was commented that since the CPSC recommendation of a performance test pertains to all water heater installations, it is not known yet how such a test would address water heaters installed in manufactured (mobile) homes.

Mr. Fandey noted that the primary locations where storage of flammable liquids can occur are basements, storage rooms, garages, etc. In light of this, he
suggested that, in addition to garage locations, the test protocol should address water heater installations in other areas where flammable vapors may be present.

Mr. Fandey reported that CPSC staff needs currently-marketed gas water heaters to conduct testing to validate the 18-inch height rule, or whatever height is determined to be effective. He also noted that CPSC would be testing other retrofit installation fixes to prevent such accidents, noted earlier.

It was noted that the CPSC Position Paper advocated testing in a "draft free" environment. Based on this, it was discussed whether such an environment represents the actual conditions that may have caused such accidents. Several members agreed that such accidents usually involve a person or persons moving about within a flammable vapor environment. Such movement can affect the movement of these vapors and promote an ignition accident which may not be prevented by an 18-inch high water heater burner.

Mr. Fandey pointed out that evaluation and testing may prove that a suggested design fix may not adequately address the problem, but that the issue will still remain and needs to be resolved with the participation of all affected interests. It was acknowledged that the gas water heater industry will fully participate in the subject of preventing such accidents.

It was suggested that research should involve measuring the height of combustible vapors from the spilled gasoline with a draft free and a non-draft free affect on Lower Explosion Levels (LEL). This would consider the time period effect of vaporization of a gasoline spill.

Mr. Fandey requested further input on pending CPSC testing from the water heater manufacturers. He indicated that such input would involve supplying water heaters for testing in addition to providing input on testing protocols being developed by CPSC. Mr. Fandey was requested to communicate CPSC Staff's recommended test protocol in order for the industry to provide further input. Mr. Stanonik noted that the Gas Appliance Manufacturers Association (GAMA) may have some water heater models available that have been previously used to conduct efficiency testing. Mr. Fandey responded that the CPSC Staff's planned testing research will be available to any interested party and he will coordinate such testing with Mr. Stanonik.

Design Changes Impact on Other Performance, Safety, and Installation Related Areas

It was noted that raising the water heater in certain installations to an 18 inch height may cause a more hazardous situation with respect to venting considerations. Mr. Fandey commented that a developed performance test would address the aspect of venting concerns. He pointed out that "low-boy" water heaters have addressed retrofit installation problems in existing venting systems in the past and will continue to do so.

Another member noted concerns that if the water heater is designed so that combustion air is obtained 18 inches above the floor, it may lead to a multitude of design and safety considerations in other areas. It was noted
that changing the design to address flammable vapor ignition may cause other safety related concerns.

It was questioned if the working group is to assume that if a water heater does not ignite flammable vapors, the condition will go unignited by other means.

It was noted that the gas water heater is often more conspicuous than other possible ignition means. Because of this, the water heater represents an easy and logical source of ignition when a fire official determines the cause of a fire.

CPSC Intent to Propose Changes to National Fuel Gas Code

It was noted that the CPSC internal memo from the Directorate for Economic Analysis had stated that "CPSC staff is considering submitting to the National Fuel Gas Code a proposal to extend this requirement to the entire residence," in addition to a proposal to change the voluntary standard for water heaters to provide similar protection. Mr. Fandey clarified that CPSC staff does not currently plan to approach any Code committees with such a proposed change. With respect to this subject, he noted that the only standards activity CPSC staff is currently involved with is with the Z21 water heater subcommittee and its working group.

It was noted that the outcome of working group/subcommittee consideration of this subject may result in a subcommittee proposal to revise appropriate Codes.

REVIEW OF SUGGESTED REVISION AND RATIONALE TO Z21.10.1 STANDARD TO ADDRESS FLAMMABLE VAPOR IGNITION BY WATER HEATERS

Review of Videotapes Provided by Mr. Downing

The working group viewed a videotape supplied by Mr. Downing of a local Louisiana television station (WWL TV). The TV news report's subject was flammable vapor ignition accidents caused by water heaters. The WWL TV report centered on several such accidents which had occurred in the state of Louisiana and involved young children.

The working group viewed another videotape supplied by Mr. Downing, which had been presented by Mr. Downing at the Z21 water heater subcommittee's November 1991 meeting. Mr. Downing's videotape demonstrated tests conducted by his law firm to prove the effectiveness of suggested design changes to prevent ignition of flammable vapors by gas water heaters.

In the videotape's first test, a gas-fired water heater was installed on the floor of a test room. A standard container of gasoline was spilled near the operating water heater. A clock in the video indicated approximately 5 to 8 seconds elapsed before the gasoline vapors were ignited.
The second test showed a gas-fired water heater installed on a stand which elevated the appliance 18 inches above the floor. This installation actually placed the main burner(s) at approximately 24 inches off the floor. The container of gasoline was spilled with no ignition of flammable vapors taking place. This test continued to be videotaped at timed intervals for approximately 1/2 hour with no flammable vapor ignition taking place.

A third test involved installing the gas-fired water heater on the floor with the combustion air inlet sealed so that combustion air was obtained by means of a vertical duct, next to the water heater jacket, with an opening at the top of the duct 18 inches off the floor. This test produced the same results as the elevated water heater.

It was suggested that CPSC Staff obtain Mr. Downing's water heater designs for evaluation. In particular, Mr. Downing's suggested design which appeared to have the bottom of the water heater sealed-off so that combustion air was obtained from a height of 18 inches through some kind of duct. It was further suggested that this water heater should be evaluated according to the Z21.10.1 standard, including conduct of some blocked combustion air tests.

Mr. Fandey indicated that CPSC will attempt to obtain the water heater design in Mr. Downing's video for evaluation. He noted that perhaps further evaluation of this design could be conducted by the A.G.A. Laboratories.

It was noted that Mr. Downing's specific designs can be tested to prove whether they are valid and safe. However, it was suggested that further testing needs to be conducted on all design possibilities to find out if a viable design is possible. One member noted Mr. Downing's suggested design changes should be considered as conceptual solutions rather than a validated design change proposal. It was commented that testing and evaluating suggested design change solutions may not be needed if it is determined that the current means (new warning label, Southern Gas Code revisions, etc.) of reducing such accidents is effective.

Mr. Downing's Proposal

At this time, the working group reviewed Mr. Downing's proposal to the water heater subcommittee, and his accompanying rationale and data. Chairman Hosler read Mr. Downing's proposal as follows:

"1.4.6 The construction of a water heater, other than direct vent water heater, shall be such that when installed the combustion air supply will not be taken immediately from a level below 18 inches from the floor of the room in which the appliance is installed."

Several members noted that Mr. Downing may be proposing a water heater design change to address its installation.

Exemption of Direct Vent Water Heaters in Proposal

Chairman Hosler noted that the working group should try to reach a consensus on whether a direct vent water heater should be exempt from the proposal, as
suggested by Mr. Downing. Mr. Pandey agreed that a direct vent water heater should be exempt as proposed above.

It was pointed out that if a direct vent water heater's controls access door is left off, the heater will communicate with the space in which it is installed. It was responded that there are little if any reports to suggest that there is a problem with a direct vent water heater relative to the reported accidents. It was also noted that a direct vent water heater will not operate properly if such an access door is not replaced. Conversely, it was commented that the heater will operate, however poorly, as a result of the door being left off so that the potential for ignition of flammable vapors exists.

Another member noted that, even though Z21 standards covering direct vent appliances have dropped the term "sealed combustion appliance," other gas appliance standards still reference the term instead of "direct vent appliance." It was pointed out that the term "sealed combustion appliance" is outdated and does not accurately describe a direct vent appliance.

It was questioned whether the basic design of a direct vent water heater is sufficient to address the problem. It was noted that one local fire authority does not recognize direct vent water heaters as addressing the problem and requires such heaters to be elevated 18 inches above the floor. The fire department has agreed that the door of a direct vent water heater could be left open which could cause such incidents.

Mr. Downing's Rationale

At this time, Chairman Hosler read Mr. Downing's "Rationale" for his above suggested revision to Z21.10.1 in its entirety. After reading the rationale, Chairman Hosler noted that the water heater subcommittee is being requested to make a design change since the applicable codes may not be enforceable and installations are occurring which place the water heater in danger of igniting flammable vapors. He asked the working group if the available information appears to indicate that the current design of water heater represents a potentially defective product, as Mr. Downing's rationale appears to suggest. It was pointed out that the issue is not that the design of the water heater is potentially defective, but whether other things could be done to reduce the number of injury accidents caused by flammable vapor ignition.

Regarding the first paragraph of Mr. Downing's rationale, it was noted that the fire/accident statistics have been based on data from 1980 - 1984. In addition, it was noted that the available data does not reflect the current water heater population, which increases each year. It was commented that, based on this and the other measures adopted since 1989 (new warning label on water heaters, Southern Gas Code revisions, education, etc.), the current extent of reduction in ignitions is not known.

Regarding the second paragraph of Mr. Downing's rationale, it was noted that Mr. Downing references elevation of the "air intake" as being recognized in the National Fuel Gas Code. However, it was pointed out that the code
specifies the 18-inch height for burners and burner ignition sources, and not combustion air intakes.

It was commented that the third paragraph of Mr. Downing's rationale states that gas suppliers approve water heater installations at floor level in garages, utility rooms, basements and storage areas contrary to the manufacturer's instructions on the exterior of the water heater. It was commented that gas suppliers generally do not approve the installations of gas equipment. Such approval is done by the authority having jurisdiction, which is defined in the National Fuel Gas Code (ANSI Z223.1). Furthermore, Z223.1 specifies that listed equipment shall be installed according to the manufacturer's instructions, which is part of its listing, and subject to approval by the authority having jurisdiction.

It was commented that in Mr. Downing's state of Louisiana, there has been no substantial enforcement or adequate education program on the 18 inch requirement and flammable vapor accidents. It was suggested that for these reasons, the stands to elevate water heaters may not have been bought or ordered in that area. However, it was commented that in those areas of the U.S. where the 18 inch requirement is enforced and widely known, stands are easily available to consumers.

The fourth paragraph of Mr. Downing's rationale stated that "it is incumbent upon the manufacturer of the product to make the product reasonably safe for the foreseeable use in the anticipated environment." It was commented that the "foreseeable use" of a water heater is to generate hot water and that "the anticipated environment" is the general home environment.

It was discussed if water heater manufacturers should anticipate the use of gasoline within a house, or is the concern confined to a garage, utility room, etc. It was noted that a significant portion of data does not indicate that the problem is related to entire house. Mr. Fandey pointed out that he would expect that gasoline would be present in a home, especially in a basement, utility room, etc. It was suggested that this subject should be divided into two locations; those that have direct access to the outdoors and those that do not have such access. Mr. Fandey noted that this is a possibility, however, it does not mean that gasoline will not be found in locations that do not have access to the outdoors.

The fifth paragraph of Mr. Downing's rationale stated that "many manufacturers have a submerged combustion chamber, where the bottom of the water heater is already sealed so that air intakes are not at the bottom of the heater." A representative of a manufacturer who produces such water heaters pointed out that the air intake of a submerged combustion chamber water heater is approximately 5 inches off the floor.

It was commented that Mr. Downing's suggested design possibilities do not address the myriad of performance concerns, such as combustion, surface temperatures, etc. It was reiterated that a design change has to be shown to increase safety by testing to all the performance sections of the Z21.10.1 standard.
It was noted that Mr. Downing's suggested design change of elevating the water heater 18 inches off the floor has not been determined as appropriate for all installations, in addition to garage installations. In addition to 221.10.1 performance concerns, it was commented that the water heater may not be able to be installed at an 18 inch height in all situations, due to venting considerations, ceiling heights, etc. It was also commented that such design changes could affect current lighting and operating instructions with respect to safety.

In the sixth paragraph of Mr. Downing's rationale, it is stated that "under oath some of the manufacturers have indicated a reluctance to make a design change alone for fear that the necessary increase in price would cause it to lose business to its competitors who did not make the same design/safety improvements."

In response, it was reiterated that the water heater manufacturers are not profit motivated with respect to this issue. It was commented that Mr. Downing's report of manufacturers' statements under oath appears to be taken out of context and that the water heater manufacturers present at this meeting agree that such a statement has never represented their intent. It was noted that it is not appropriate to discuss potential cost of any suggested design changes, since the subcommittee only considers issues involving safety and performance. It was further noted that, unlike the water heater subcommittee, the CPSC staff evaluates economic benefits of such changes as part of its procedures.

Hazardous Locations - Model Code Issues

It was commented that the Mechanical Code of the Building Officials and Code Administrators International (BOCA) addresses hazardous locations, which it defines as "any location considered to be a fire hazard for flammable vapors, dust, combustible fibers, or other highly combustible substances." Based on this, it was reported that the BOCA Mechanical Code classifies the residential garage as such a hazardous location, and specifies appropriate fire protection in the walls (i.e., sheetrock). In addition, it was commented that a garage can be further classified as a hazardous location with respect to electrical code requirements. It was pointed out that the BOCA code does not address residential dwellings as a hazardous locations.

It was commented that, after 1989, the Southern Building Code contains specifications that allow gas appliances to be installed on the floor, if separated from a hazardous location (e.g., garage) by two doors. An example would be a door separating the garage from the house, leading to a hallway within the house which has another door leading to a room with appliances installed.

Based on the above observations, it was suggested that the working group needs to separate the issue of the home living environment with the "hazardous location" environment, such as a garage, etc.

It was questioned whether the subject of defining hazardous locations is within the scope of the 221 water heater subcommittee. Chairman Hosler
commented that if the subcommittee determines that the subject is not within its scope, then it would be referred to the appropriate group(s) for consideration. However, he noted that the working group can discuss this aspect within the context of its assignment.

Mr. Fandey noted that the working group/subcommittee can determine the issues involving hazardous locations on its own, without any input from the CPSC. However, it was pointed out that the CPSC staff is currently one of the driving forces behind the concept of a possible design change. Based on this, it was suggested that the CPSC staff should assist the working group and provide guidance to address the issue of hazardous locations. Mr. Fandey commented that, regardless of whatever action is deemed necessary, if 80 to 85 percent of annual flammable vapor ignition accidents can be prevented, then significant progress will have been made.

Mr. Fandey reported CPSC Staff's continuing participation with the U.S. Department of Housing and Urban Development (HUD) to ensure that all new construction complies with appropriate Code requirements.

Impact of Gas Industry Prevention Measures Since 1989

It was suggested that the working group should consider the current situation involving the new water heater warning label, and not the past situation involving no such label. Mr. Fandey commented that the new warning label has been employed on newly produced water heaters and that only a small number of retrofit installations have the new warning label. However, it was discussed that some gas utilities are presently involved in education efforts in placing the new warning labels on all existing water heaters, whether they are replaced or not. It was noted that fire accident data from 1980 to the present should be made available to determine if the new warning label is effective. Mr. Fandey noted that, though the new label is conspicuous, the consumer will not think to read his water heater label when working on his gasoline-powered lawnmower. It was questioned whether any fire data is now available on such incidents after 1980, to indicate whether the new warning label is effective in reducing the number of flammable vapor accidents.

It was noted that, in addition to the above, the impact of the 1989 revisions to the Southern Gas Code involving the 18 inch height requirement have not been measured as yet. It was noted that Mr. Downing's experience with such accidents appears to be centered in Louisiana, which is an area covered by the Southern Gas Code.

Canadian Regulations Addressing Flammable Vapor Ignition Hazards

It was commented that the Canadian government mandates adequate warning labels/markings for all flammable liquid containers. Furthermore, it was reported that Canadian Gas Association (CGA) staff has indicated that flammable vapor accidents involving gas-fired water heaters has not been a problem in Canada. It was noted that it is not known if the situation in Canada is due to the flammable liquid container warning label or the differences between the legal systems of the U.S. and Canada. It was agreed that such Canadian regulations would be obtained for working group review.
WORKING GROUP RECOMMENDATIONS ON FURTHER STATISTICAL ANALYSIS

In conclusion, the working group agreed that the following additional research is needed to assist the group in its consideration of this subject. It was also agreed that the working group's review of the following data/information will determine if appropriate research testing should be recommended to the subcommittee.

1. **Trend Analysis Based on Number of Injury-Causinig Accidents and Total Population of 221.10.1 Gas-Fired Water Heaters.**

   It was agreed that Mr. Stanonik will develop such a trend analysis for review by the working group.

2. **Determine Specific Regions of the U.S. That Have Had Flammable Vapor Injury-Causinig Accidents Involvinig 221.10.1 Water Heaters;**

   **Determine the Model Code(s) Applicable to Those U.S. Regions; and**

   **Determine Specific Location of Water Heater Installation in a Residence Involvinig Such Accidents.**

   Mr. Fandey agreed to have his staff attempt to further "refine" the available CPSC data to obtain more detailed location information. Mr. Ranfone noted that if the data can be broken down regionally, he can provide which Model Codes apply to that region. It was agreed that Messrs. Fandey and Ranfone will coordinate on this subject. Mr. Ranfone agreed to contact the NFPA and obtain information regarding the status of updating the NFPA Special Report. He will also contact the NFPA if further research/assistance is needed beyond the scope of the NFPA Special Report.

3. **Obtain Information on Whether 221.10.1 Water Heaters Involved in Such Accidents Were Elevated or Not; and**

   **If Water Heater Was Elevated in Such Accidents, Obtain Specific Height of Burner and Burner Ignition Source (Combustion Air Inlet).**

   CPSC Staff will forward its 41 In-Depth Investigations (IDI's) on such accidents, and related guidelines for conducting an IDI, for working group review. Mr. Fandey encouraged the working group to review the IDI guidelines and provide comments if they feel the guidelines can be improved or enhanced.

4. **Determine What More Can be Done Through the Education Process, Both Public and Professional.**

   Mr. Ranfone commented that the American Gas Association (A.G.A.) is assisting interested organizations, including CPSC, in developing a consumer brochure, which in part educates the consumer regarding storage and use of flammable liquids and gas-fired appliances. He agreed to
keep the working group advised as to the status of this project. It was noted that the fire prevention industry could supplement its "Stop, Drop, and Roll" campaign with education regarding the ignition of flammable vapors.

TIME AND PLACE OF NEXT MEETING

Chairman Hosler noted that, based on the above assignments, another working group meeting would be needed. He recommended that such a meeting take place in conjunction with the water heater subcommittee's next meeting, tentatively scheduled for September 1992.

At this time, Chairman Hosler thanked everyone for a successful and productive meeting and adjourned the meeting at 11:00 A.M., Wednesday, March 18, 1992.

DAVID C. BIXBY
Acting Secretary
GAMA Information Campaign on
Flammable Liquids and the
Fire Hazards They Present

For the last two years, staff has been working intensively with the ANSI Z-21 subcommittee to identify effective approaches to reducing or eliminating the number of deaths and serious burn injuries which occur when gasoline or other flammable vapors come in contact with a water heater pilot or flame. In response to this joint concern, the Gas Appliance Manufacturers Association (GAMA) has sponsored two important activities, one scientific (a study), and one educational (this information campaign).

At a cost of several million dollars this program takes a multiple approach with video segments for television, an educational program for children in kindergarten through eighth grade including a comic book and other print products, and communications to the plumbing trade. Staff had discussed the possibility of working with GAMA in the development of a cooperative educational program; however, due to the time constraints which GAMA felt they were under, staff assistance was not requested. Once the program was developed GAMA representatives came to CPSC and made a presentation of the materials to two Commissioners and staff. This presentation showed the entire program in context and was enthusiastically received by all in attendance. A presentation like the one that GAMA made to staff is included on the video tape in the accompanying package.

The Commission is being requested to endorse the information campaign which GAMA developed advising consumers about the hazards of flammable liquids. Staff notes that the National Fire Protection Association (NFPA) has allowed the use of its trademarked "Sparky"® the Fire Dog. General Counsel has reviewed the materials and reports that they see no legal impediments to supporting the campaign. Subsequent to the General Counsel's opinion, staff made contact with GAMA about the specific language which GAMA would like, should an endorsement be granted by the Commission. The specific language which was discussed was "...developed (or sponsored) by GAMA in cooperation with the Consumer Product Safety Commission" or other words to that effect which the Commission determines to be preferable. The Commission could decide whether to allow use of such words with or with the CPSC logo. While staff recognizes the tremendous contribution which GAMA has made to product safety with this program, it finds that there are sufficient problems with the presentation that it recommends that the Commission commend the efforts of GAMA but withhold authority to use the CPSC name or logo.
Index of Tabs

Tab A - Request by the Gas Appliance Manufacturers Association (GAMA) that CPSC endorse their consumer education program on flammable vapors

Tab B - OGC Guidance Memorandum

Tab C - Letter of May 24, 1993 from J. Fandey, ESEE to Reuben Autery, President, GAMA
TO: The Commission

THROUGH: Sadye E. Dunn, Secretary
THROUGH: Jerry G. Thorn, General Counsel
THROUGH: Eric C. Peterson, Executive Director
THROUGH: Bert G. Simson, Assistant Executive Director, EXHR
THROUGH: William W. Walton, Associate Executive Director, ES
THROUGH: William H. King, Jr., Director, ESEE

FROM: Joseph Z. Fandey, ESEE, Project Manager (504-0508)

SUBJECT: Request for Commission endorsement of an Information Campaign for the dangers of flammable vapors

I. Issue: Whether the Commission should endorse and allow the use of the Commission's name and/or logo in the informational materials developed by GAMA.

II. Background: For several years staff has been concerned with the problem of gas appliances, especially water heaters, igniting flammable vapors. Two years ago, staff requested that the Z-21 subcommittee on water heaters set up a special working group to study these ignitions in an attempt to develop a strategy to reduce or eliminate them. Shortly after the working group began to meet, the GAMA Consumer Information and Education Committee, Water Heater Division, sponsored two phases of an initial response. One scientific and one informational. Staff has recently received final reports on the scientific study and will report on that separately. The video portion of the educational component of GAMA's work has been shown on television during this summer's schedule, most notably during the NBA basketball championship play-offs. GAMA felt that, in order to meet the summer season, it did not have the luxury of time to ask for CPSC participation or prior endorsement and thereafter waiting for the necessary clearances before showing the pieces during the period of highest risk (the summer). However, now that the time pressure is over, GAMA is taking this opportunity to request CPSC participation through endorsement, Tab A.

III. Discussion: The GAMA has made a studied attempt to get useful information to the attention of a broad cross-section of "at risk" consumers. To the extent that it convinces consumers to avoid having gasoline and other flammable vapors present in the home or around gas appliances it will reduce or eliminate the risk of injury. Staff believes that this is an important and significant contribution to solving the...
May 11, 1993

The Honorable Jacqueline Jones-Smith  
Chairwoman  
U.S. Consumer Product Safety Commission  
Westwood Towers  
5401 Westbard Avenue  
Bethesda, Maryland 20816

Dear Chairwoman Jones-Smith:

I regret that you were unable to attend our briefing last week on the GAMA Water Heater Division's Consumer Safety Awareness Campaign. I have instructed our public relations firm to send Eric Peterson ten copies of a package which fully describes the many different components of the campaign. If, after reviewing this package, you have any questions about the campaign, please do not hesitate to call me.

GAMA would very much appreciate the endorsement and/or promotion of this campaign by the Consumer Product Safety Commission.

Sincerely,

C. Reuben Auer
President

CRA:gjr-1