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95-76 FIRE PREVENTION STUDY ACT OF 1977

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON CONSUMER PROTECTION
AND FINANCE

OF THE

COMMITTEE ON

INTERSTATE AND FOREIGN COMMERCE

HOUSE OF REPRESENTATIVES

NINETY-FIFTH CONGRESS

FIRST SESSION

ON

H.R. 7684

A BILL TO AMEND THE FLAMMABLE FABRICS ACT TO RE-
QUIRE THE SECRETARY OF COMMERCE TO STUDY THE NECES-
SITY AND FEASIBILITY OF ESTABLISHING FEDERAL STAND-
ARDS RELATING TO FIRE PREVENTION AND CONTROL

JULY 29 AND SEPTEMBER 19, 1977

Serial No. 95-76

Printed for the use of the
Committee on Interstate and Foreign Commerce



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CONTENTS

Hearings held on—	Page
July 29, 1977.....	1
September 19, 1977.....	123
Text of H.R. 7684.....	3
Statement of—	
Birky, Merritt M., Ph. D., Chief, Program for Toxicology of Combustion Products, National Bureau of Standards, Department of Commerce.....	54, 62
Brandenburg, Kenneth, State Police Commissioner, State of Kentucky.....	126
Carroll, Hon. Julian M., Governor, State of Kentucky.....	126
Collini, Charles, assistant chief, Cincinnati Fire Department.....	183
Copeland, Tom D., chief of fire prevention, Division of Fire Prevention, Nashville, Tenn.....	23
Dodd, Hon. Christopher J., a Representative in Congress from the State of Connecticut.....	8
Grimes, Martin E., assistant vice president for government affairs, National Fire Protection Association.....	65
Hall, Jack, chief executive officer, State of Kentucky.....	126
Jablonsky, John L., assistant vice president, engineering & safety, American Insurance Association.....	103, 107
Johnson, Janet, employee, Beverly Hills Supper Club.....	165
Jolly, A. J., legal counsel, city of Southgate, Ky.....	156
Lewis, Ovid, Ph. D., professor, Chase Law School.....	126
Lucht, David, Deputy Administrator, National Fire Prevention and Control Administration.....	33
Lugannani, Bert, chief, Cincinnati, Ohio, Fire Department.....	187
Lyons, John W., Ph. D., Director, Center for Fire Research, National Bureau of Standards, Department of Commerce.....	33, 45, 54
Paul, Hon. Kenneth, mayor, city of Southgate, Ky.....	156
Sabino, Capt. Peter, Cincinnati Fire Department.....	177
Sanders, Jack C., member of standards council, National Fire Prevention Association.....	65, 97
Sharry, John A., assistant director of engineering, National Fire Protection Association.....	65
Stevens, Richard E., assistant vice president, National Fire Protection Association.....	65
Tipton, Howard, Administrator, National Fire Prevention and Control Administration.....	33
Trant, Bruce S., executive director, Council of American Building Officials.....	103
Zorick, Janet, Cincinnati, Ohio.....	173
Additional material submitted for the record by—	
Commerce Department, National Bureau of Standards, attachment to Dr. Lyons' prepared statement, executive summary.....	55
Dodd, Hon. Christopher J., a Representative in Congress from the State of Connecticut, attachments to Mr. Dodd's prepared statement:	
Combustion of mattresses exposed to flaming ignitions sources.....	18
Letter dated July 9, 1976, from Hon. Christopher J. Dodd and Hon. Stewart B. McKinney, Members of Congress to Mr. S. John Byington, Chairman, Consumer Product Safety Commission, re Federal safety standards regarding the flammability of polyurethane and other types of mattresses used in many public health and penal institutions throughout this country.....	10

Additional material submitted for the record by—Continued

Dodd, Hon. Christopher J.—Continued	
Letter dated August 20, 1976, from S. John Byington, Chairman, Consumer Product Safety Commission, to Hon. Christopher J. Dodd, Member of Congress, re response to letter of July 9, requested comments on the flammability of mattresses-----	Page 11
Letter dated August 20, 1976, from Michael A. Brown, General Counsel, Consumer Product Safety Commission, to Hon. Christopher J. Dodd, Member of Congress, re response to letter of August 10 requesting opinions of the office-----	12
Letter dated August 10, 1976, from Hon. Stewart B. McKinney and Hon. Christopher J. Dodd, Members of Congress, to Michael Brown, General Counsel, Consumer Product Safety Commission, re whether the term "consumer," as used in sec. 2051, title 15, United States Code, is meant to include institutional populations, such as those in prisons or mental health facilities-----	13
Letter dated July 1, 1976, from Hon. Christopher J. Dodd and Hon. Stewart B. McKinney, Members of Congress-----	16
Report to the Congress by the Comptroller General of the United States-----	14
Tabulation of the questionnaire sent to all 50 States and the Territories by Representative Christopher J. Dodd and Representative Stewart B. McKinney, July 1976-----	17
National Fire Prevention and Control Administration, attachment to Mr. Tipton's prepared statement, codes and standards-----	38
National Fire Protection Association, attachments to Mr. Grimes' prepared statement:	
Letter dated July 13, 1977, from Philip C. Favro, State fire marshal to Martin E. Grimes, assistant vice president, government affairs-----	95
Organization and function of the standards council-----	93
Procedures for hearing by the standards council-----	94
Regulations governing technical committees-----	79
Tennessee Division of Fire Prevention, attachments to Chief Copeland's prepared statement:	
Letter dated July 27, 1977, from Tom D. Copeland, chief of fire prevention, to Chairman Eckhardt re answers to questions----	27
Maury County Jail, diagram of structure-----	26
Statement submitted for the record by Dr. Randall W. A. Davidson, president, International Safety Institute, Inc., National Commissioner for Health and Safety, U.S. Institute for Theatre Technology-----	200
Letters submitted for the record by—	
National Fire Protection Association, Charles S. Morgan, president--	202
Society of Fire Protection Engineers, Harry C. Bigglestone, president--	201
Western Union Mailgram submitted for the record by Howard Boyd, president, Fire Marshals Association of North America-----	202

ORGANIZATIONS REPRESENTED AT HEARINGS

- American Insurance Association, John L. Jablonsky, assistant vice president, engineering and safety.
- Cincinnati, Ohio, Fire Department:
 - Collini, Charles, assistant chief.
 - Lugannani, Bert, chief.
 - Sabino, Peter, captain.
- Commerce Department, John W. Lyons, Ph. D., Director, Center for Fire Research, National Bureau of Standards.
- Council of American Building Officials, Bruce S. Trant, executive director.
- National Fire Prevention and Control Administration, Howard Tipton, Administrator.
- National Fire Protection Association, Martin E. Grimes, assistant vice president for government affairs.

FIRE PREVENTION STUDY ACT OF 1977

FRIDAY, JULY 29, 1977

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:15 am., in room 2322, Rayburn House Office Building, Hon. Thomas A. Luken (chairman) presiding.

Mr. LUKEN. The Subcommittee on Consumer Protection and Finance will be in order.

Today the subcommittee begins 2 days of hearings on H.R. 7684, the Fire Prevention Study Act of 1977.

Fires cause nearly \$4 to \$5 billion in property damage annually, in addition to the cost of prevention and fighting fires. Approximately 85 cents of every dollar lost is attributable to a building fire. Almost two-thirds of the 12,000 deaths that occur each year result from building fires. Such statistics raise serious question about the adequacy of our present building and fire code safety system.

That is the reason for these hearings, which will examine the effectiveness and the myriad of the complex State and local government codes drawn largely from model building fire and safety standards.

The subcommittee will also consider the problems State and local government officials encounter in attempting to enforce these diverse and complex codes. In order to illustrate how the present State and local system operates, the subcommittee will investigate several recent fires which resulted in significant loss of life. This hearing will focus on the fire which occurred in the Maury County correctional facility on June 26 of this year, in which 42 persons were killed.

A second hearing will be held subsequently in Cincinnati, in early September, which will focus on the fire which occurred in Southgate, Ky., at the Beverly Hills Supper Club, in which 164 persons were killed, which is probably the most significant fire since the Coconut Grove fire in Boston in 1942.

In light of the potential magnitude of these problems in fire safety, H.R. 7684 would amend the Flammable Fabrics Act to direct the Secretary of Commerce to study the necessity and feasibility of establishing Federal building and fire safety standards. In that connection I would like each witness who is going to testify as to the feasibility and the advisability of such codes, to consider if we as a Federal Government, as a society, have passed laws to protect children as they sleep by having their nightwear fire resistant, what are we doing to make the rooms they sleep in, the houses they sleep in, the schools they go to; what are we doing to make them fire resistant or fireproof?

I think that is the question we are focusing on here this morning. It looks like we are going to put up with the harassment of the bells today.

Without objection the text of H.R. 7684 will be printed at this point in the record.

[The text of H.R. 7684 follows:]

FRIDAY, JULY 22, 1971

REPORT OF THE COMMITTEE ON CONSUMER PROTECTION AND BUSINESS

COMMITTEE ON INVESTIGATION AND REFORM, SENATE

ON THE PROPOSED FEDERAL TRADE COMMISSION

AND THE PROPOSED FEDERAL TRADE COMMISSION

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AND THE PROPOSED FEDERAL TRADE COMMISSION

95TH CONGRESS
1ST SESSION

H. R. 7684

IN THE HOUSE OF REPRESENTATIVES

JUNE 8, 1977

Mr. LUKEN introduced the following bill; which was referred jointly to the Committees on Interstate and Foreign Commerce and Banking, Finance and Urban Affairs

A BILL

To amend the Flammable Fabrics Act to require the Secretary of Commerce to study the necessity and feasibility of establishing Federal standards relating to fire prevention and control.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SHORT TITLE

4 SECTION 1. This Act may be cited as the "Fire Preven-
5 tion Study Act of 1977".

6 FINDINGS

7 SEC. 2. The Congress hereby finds that—

8 (1) destructive fires take a huge toll in lives, in-
9 juries, and property damage in the Nation each year;

I

1 (2) the environment in which Americans live and
2 work presents unnecessary hazards of fire;

3 (3) indifference and lack of resources have resulted
4 in inadequate attention to fire prevention and control
5 problems in the Nation;

6 (4) a greater Federal involvement may be neces-
7 sary to overcome such indifference and provide adequate
8 resources to confront such fire prevention and control
9 problems; and

10 (5) the Secretary of Commerce should conduct a
11 study to determine whether a Federal fire prevention
12 and control code would be an appropriate means of ad-
13 dressing fire prevention and control problems in the
14 Nation.

15 AMENDMENT TO FLAMMABLE FABRICS ACT

16 SEC. 3. The Flammable Fabrics Act (15 U.S.C.
17 1191 et seq.) is amended by adding at the end thereof
18 the following new section:

19 "STUDY OF FIRE PREVENTION STANDARDS

20 "SEC. 18. (a) The Secretary of Commerce, acting
21 through the Administrator of the National Fire Prevention
22 and Control Administration, shall conduct a study relating
23 to fire prevention and control standards in accordance with
24 the provisions of this section.

1 “(b) The Secretary of Commerce, in carrying out the
2 study required in subsection (a), shall—

3 “(1) determine the extent to which fires which
4 would be the subject of a Federal fire prevention and
5 control code have been caused by interior furnishings
6 of fabric or other related materials;

7 “(2) review and evaluate the provisions of, and
8 the administration of, State and local fire prevention
9 codes;

10 “(3) determine whether it is necessary and feasible
11 for the Federal Government to establish and administer
12 a Federal fire prevention and control code and deter-
13 mine the manner in which any such code should be
14 established and administered;

15 “(4) determine the types of buildings, facilities,
16 and other structures which would be subject to the pro-
17 visions of any such Federal fire prevention and control
18 code;

19 “(5) study whether the provisions of any such
20 Federal fire prevention and control code should—

21 “(A) require any structural or other changes
22 or alterations in existing buildings in order to

1 achieve compliance with the provisions of such
2 code;

3 “(B) include regulations and specifications
4 relating to equipment used for fire prevention and
5 control;

6 “(C) require the installation of fire detectors
7 and similar equipment in buildings, facilities, and
8 other structures which are subject to the provisions
9 of such code; and

10 “(D) require the establishment and mainte-
11 nance of fire prevention systems in such buildings,
12 facilities, and structures.

13 “(6) analyze policies and procedures for enforce-
14 ment which would be appropriate for the effective admin-
15 istration of any such Federal fire prevention and control
16 code; and

17 “(7) study any other aspects of fire prevention
18 and control to the extent necessary to assist the Secre-
19 tary in determining the necessity and feasibility of such
20 Federal fire prevention and control code.

21 “(c) The Secretary of Commerce shall transmit a report
22 to each House of the Congress no later than one year after
23 the effective date of this section. Such report shall include
24 the findings made by the Secretary in the study required in

- 1 subsection (a), together with recommendations of the Sec-
- 2 retary for such legislative or other action as the Secretary
- 3 considers necessary or appropriate.”.

Mr. LUKEN. Since Congressman Dodd is on his way, we will recess for 7 minutes for the vote which is in progress.

[Brief recess.]

Mr. LUKEN. If the congressman is ready, we are going to try to sneak in a little testimony in between what appears to be an avalanche of votes and quorum calls that we are going to be facing today.

We are pleased to have before the Consumer Protection Subcommittee our esteemed colleague from Connecticut, the Honorable Christopher Dodd, who I understand has been making a study of some of the subjects before us today, and we are very pleased to have him.

Congressman Dodd.

STATEMENT OF HON. CHRISTOPHER J. DODD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Mr. DODD. Mr. Chairman, I appreciate the opportunity to testify on a subject matter that we began looking into a couple of years ago as a result of an incident in Connecticut, in the interest of one of our local groups up there.

I do have a prepared statement. I would like to, in the interest of brevity, go through it to some extent anyway and I will ask that with your permission it be included as part of the record.

Mr. LUKEN. There being no objection it will be included as part of the record.

Mr. DODD. Mr. Chairman and members of the Subcommittee on Consumer Protection, I appreciate greatly the opportunity to appear before you today to testify in support of upgrading Federal safety standards for mattresses and other padding materials used in public health and penal institutions throughout this country.

I would like to say it is a pleasure for me to be here this morning, Mr. Chairman, but it is not. Actually, I would have preferred that it was not necessary for a Member of Congress, or anyone else for that matter, to come before a committee anywhere to speak about the absolute necessity for such stricter safety standards.

I would have preferred that those responsible for the well-being of thousands of Americans who reside in such institutions would have long ago heeded the warning signals about the extreme fire risks from certain types of bedding and padding.

I am, of course, mainly speaking about the bedding and padding manufactured of the plastic, foam-like substance known as polyurethane. I would have preferred that the Federal agency charged with protecting users of such materials in these institutions, the Consumer Product Safety Commission (CPSC) would have long ago recognized these same warning signals and acted responsibly to minimize this danger. Sadly, Mr. Chairman, this is not the case in most instances.

To their credit, some State corrections and health officials recognized these signals, countless fires stemming from polyurethane or other foam-type mattresses in prisons and nursing homes throughout the country. These officials instituted changes to increase fire protection. However, many other States have yet to institute such improvements.

The Consumer Product Safety Commission has, during the past year, dismissed any suggestions that it upgrade the flammability standards for polyurethane mattresses.

Mr. Chairman, it has taken the deaths of 42 inmates at a jail in Tennessee for nationwide attention to again be focused on this problem. Suddenly the CPSC is sending people over to my office to discuss the issue, for example.

In all fairness, one could not say whether the lives of these 42 Tennessee inmates would have been saved if the Consumer Product Safety Commission had acted expeditiously 1 year ago, when I and my colleague from Connecticut, the Honorable Stewart B. McKinney, asked it to upgrade polyurethane mattress standards. But at least one could say that a Federal Government agency had not virtually swept aside warnings and pleas that it deal with a safety hazard it by law is responsible for dealing with.

At least one also could say that we are not 1 year behind where we should have been in making progress against this threat to many lives.

Mr. Chairman, Mr. McKinney and I become involved in this area after a newspaper in my congressional district, the Norwich—Connecticut—Bulletin, produced an excellent investigative series about the national and local problems represented by polyurethane mattresses.

Serious questions were raised about the safety of the mattresses in Connecticut's public institutions and those around the nation. The Bulletin made the case convincingly that existing Federal safety standards regarding the flammability of such mattresses are inadequate to prevent death or serious injury.

It was apparent that the Government should have closely reviewed existing mattress flammability standards as soon as possible to determine how to make them more stringent.

It was apparent that the existing test mandated to determine mattress safety, the so-called cigarette test, was terribly inadequate, and that a stricter open flame test was needed.

Let me briefly describe the hazards of polyurethane mattresses, and in so doing, I would point out that these problems threaten not only those who live in confined places, such as prisons, nursing homes, State mental hospitals, orphanages, et cetera, they also threaten every other consumer who sleeps on a polyurethane mattress in his or her private home.

Polyurethane mattresses apparently burn rapidly and emit highly toxic gases when ignited by an open flame. Considered fire retardant when new, this quality is removed from the product within 6 months to 1 year, when the chemical used to make them fire resistant apparently dissipates.

A polyurethane mattress reportedly will melt away when touched with a cigarette or similar contained heat source, but if it is exposed to an open flame, such as a match or torch, then there is the volatile ignition I mentioned before.

The present mattress flammability tests and standards administered by the CPSC do not appear to take into account the dissipation over time of the fire resistant chemical, the extreme combustibility of polyurethane from an open flame, and the special threats these conditions pose to those living in confined, institutional situations.

After reading the Bulletin's stories and making inquiries on my own, Mr. Chairman, it became clear to me that the Federal Government had a responsibility to insure the safety of such products by enacting adequate flammability safety standards to minimize these risks, and thus the possibility of further deaths and injuries to individuals.

I would add that I also personally tested the hazards of polyurethane mattresses under the supervision of one of the fire marshals in my own district. What we did, Mr. Chairman, was to take one of these mattresses and test it under a variety of conditions in terms of ventilation and so forth. In each case I have never seen anything burn as fast as that mattress did when exposed to that open flame. The heat was incredible.

We had in an open area to back many yards away. The toxic—the smoke was just billowing from this thing; when it was done and over there was, interestingly, there was a small amount, in comparison to the actual bulk, a small amount of residue afterwards. So it was a rather interesting test.

Mr. McKinney and I began to consider after our own look into this as a result of these articles, what action to take to begin determining solutions to this problem, and here is what we did and here are the results of our actions so far, and here is what I believe must be done in the future in this area.

First, we wrote to the Consumer Product Safety Commission and asked it to reevaluate its mattress flammability testing procedures and standards with the goal of upgrading them to insure the safety for all who use such mattresses. We also asked the commission for a legal opinion as to the extent of its authority and responsibility under the law to mandate standards not only for the general public, but for those who might form a less large group, a subgroup if you will, such as prison inmates or mental hospital patients.

I would ask your permission to place our correspondence in the hearing record.

Mr. LUKEN. Without objection it will be entered into the record. [The information referred to follows:]

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
WASHINGTON, D.C., July 9, 1976.

Mr. S. JOHN BYINGTON,
Chairman, Consumer Product Safety Commission,
1750 D Street NW., Washington, D.C.

DEAR Mr. BYINGTON: Serious questions have been raised recently about the adequacy of present Federal safety standards regarding the flammability of polyurethane and other types of mattresses used in many public health and penal institutions throughout this country. We are greatly concerned about this problem, both as it relates to public institutions (prisons, hospitals, nursing homes, mental health facilities, orphanages, etc.) and to the general welfare of all consumers.

It appears that some types of mattresses, especially polyurethane, present an extreme fire hazard to anyone residing in such institutions, and to the general public. Polyurethane mattresses are considered fire retardant when new, yet the chemical used to make them fire resistant apparently dissipates within six months to a year, thus removing this quality from the product. In addition, a polyurethane mattress reportedly will melt away when touched with a cigarette or similar contained heat source, but if it is exposed to an open flame, such as a match or torch, the material burns rapidly and emits highly toxic gases.

The present mattress flammability tests and standards administered by your Commission do not appear to take into account the dissipation over time of the fire resistant chemical, the combustibility of polyurethane from an open flame, and the special threats these conditions pose to those living in confined, institutional situations.

In view of these apparent deficiencies, and the other questions raised about mattress safety, we formally request your Commission to re-evaluate its mattress flammability testing procedures and standards with the goal of upgrading them to ensure the safety of all who use mattresses, regardless of type.

The polyurethane mattress problem has been effectively spelled out in the enclosed series of articles from a highly respected newspaper in our state, the Norwich (Conn.) Bulletin. We also would ask that you comment on the many questions this series raises about your tests and standards, and about the flammability problem itself.

If you have any questions, please do not hesitate to contact us through our staff assistant, Bruce Gwinn, at 202-225-2076. Since we view polyurethane mattress flammability as an urgent matter, we look forward to your timely response.

Sincerely,

CHRISTOPHER J. DODD,
Member of Congress.
STEWART B. MCKINNEY,
Member of Congress.

Enclosure.

CONSUMER PRODUCT SAFETY COMMISSION,
Washington, D.C., August 20, 1976.

HON. CHRISTOPHER J. DODD,
House of Representatives, Washington, D.C.

DEAR MR. DODD: This is in response to your letter of July 9 in which you requested comments on the flammability of mattresses and on issues raised in a series of newspaper articles published in early June of this year in the Norwich (Connecticut) Bulletin.

The current Standard for the Flammability of Mattresses, FF 4-72, was developed by the Department of Commerce between 1970 and 1972. In the late 1960's, existing data indicated that bed and upholstered furniture fires accounted for numerous deaths in the United States, and that about half of the building fires started as bed or upholstered furniture fires. Additional data from fire departments and other accident investigations indicated that 80 to 90 percent of the bed fires were started by lighted cigarettes. Research conducted by the National Bureau of Standards (NBS) showed that the hazard from cigarettes dropped on make-up beds was that of the cigarette charring through the blankets and sheets into the mattresses where a smoldering fire developed.

Concurrently with the NBS research, industry and the U.S. Department of Agriculture's (USDA) laboratories in New Orleans cooperated in the successful development of a flame resistant mattress. Unfortunately, the flame resistant mattress ignited readily from a cigarette. Conversely, mattress systems likely to successfully resist cigarette ignition would ignite from matches or other flaming sources. Therefore, the existing technology forced the Department of Commerce to address only the major hazard, ignition from cigarettes, in developing the standard. Other considerations supported the same conclusion.

In summary, the standard addresses the major risk, the risk of accidental cigarette ignition, and its scope was confined by the existing technology. The standard is a performance standard, so it constituted no barrier to the introduction of improved technology. We were pleased to learn recently of the development of the technology referred to in some of the articles, that for a mattress system said to be resistant to both cigarette and flame ignition. We understand that scientists at the USDA laboratories are processing technical papers to be published soon on their work, and we look forward to obtaining this information.

It may be of interest to you that the Commission technical staff is working on a petition related to the question you raised. The petition, designated FP 75-8, was received from Dan J. Quinan, the Fire Marshal of the State of Nevada in February 1975. The Commission staff has been examining the hazards of flammability and resultant toxicity that arise from intentional ignition of polyurethane mattresses by persons in certain controlled environments, and this information will be sent to the Commissioners for their evaluation in the near future. Your office will, of course, be advised of the Commission's decision on this petition.

As discussed, the primary hazard to the public associated with mattresses, and addressed by the existing standard, is accidental cigarette ignition. Certainly, special risks of injury may be present in penal and other institutions. Where institutional authorities determine that the federal mattress standard does not meet their particular needs, they may, of course, establish additional requirements providing a higher level of protection. We would point out that section 16(b) of P. L. 94-284 (copy enclosed), signed into law on May 11, 1976, specifically amended the Flammable Fabrics Act to provide that any state or local authority can set higher flammability standards for products for use by that authority. We are pleased to note that the State of Connecticut has taken such action.

I do appreciate your expression of concern regarding the mattress standard, and would welcome any additional information or data you may be able to provide. Please do not hesitate to contact me if you have further questions.

Sincerely,

S. JOHN BYINGTON, *Chairman.*

Enclosure.

CONSUMER PRODUCT SAFETY COMMISSION,
Washington, D.C., August 20, 1976.

Hon. CHRISTOPHER J. DODD,
House of Representatives,
Washington, D.C.

DEAR MR. DODD: This is in response to your letter of August 10, 1976, co-signed by Representative McKinney, requesting an opinion from this office on issues raised by certain provisions of the Consumer Product Safety Act (CPSA, copy enclosed) and the Flammable Fabrics Act (FFA, copy also enclosed), which are administered by the Commission. You have asked (1) whether the term "consumer" as used in the CPSA is meant to include institutional populations such as those in prisons or mental health facilities, and (2) whether the Commission can issue safety standards under the CPSA and/or the FFA applicable only to sub-groups of the general public.

With regard to your first question, the term "consumer" is not defined in the CPSA. However, the term "consumer product" is defined in section 3(a)(1) of the Act to include products that are produced or distributed "for the personal use, consumption, or enjoyment of a consumer in or around a permanent or temporary household or residence, a school, in recreation, or otherwise. . . ." In addition, one of the general purposes of the Act as set forth in section 2(b)(1) is "to protect the public against unreasonable risks of injury associated with consumer products" (emphasis added). We believe that Congress' intent in providing such broad jurisdictional wording was that the Commission should protect individuals from unsafe consumer products regardless of where the products are used, consumed, or enjoyed. We therefore believe that residents of prisons and mental health facilities are intended to be protected by the CPSA to the extent that they personally use, consume, or enjoy consumer products in those institutions.

Your second question focuses on the scope of particular safety standards that the Commission may issue under the CPSA or FFA. Section 7(a) of the CPSA authorizes the Commission to issue mandatory safety standards that are "reasonably necessary to prevent or reduce an unreasonable risk of injury associated with [a consumer product]." These standards may set performance, design and other requirements for consumer products. We know of no legal prohibition against defining a category of consumer products subject to a standard so that only consumer products used by a particular "sub-group of the general public" would be included in the category and be covered by that standard. The Commission must of course be able to support its issuance of such a standard by making the findings required by section 9(c) of the CPSA concerning the nature of the risk of injury, the necessity for and appropriateness of the standard, and economic and public interest considerations.

The Commission has authority under the FFA to issue mandatory safety standards for wearing apparel and interior furnishings. As was the case under the CPSA, we see no legal prohibition against issuing a standard limited to products used by a certain "sub-group(s)" of consumers. This conclusion assumes that all requirements for issuing FFA standards are met, including the requirement of section 4(b) of the Act that the Commission find that the standard is needed to adequately protect the public against the occurrence of fire leading to death, injury, and significant property damage.

Action taken by the Commission to set mandatory federal safety standards is controlled by the relative priority each product has within the Commission's finite resources. You may be interested in the enclosed statement of Commission policy on establishing priorities for action, including regulatory action published in the Federal Register on July 8, 1976. In the policy, the Commission states that in establishing its priorities it will apply seven general criteria, such as frequency and severity of injuries, causality of injuries, the cost and benefit of Commission action, and any additional criteria that may arise. The public may submit comments on the policy until September 7, 1976.

While the statements in this letter represent the current interpretation of the law by the Office of the General Counsel, they could subsequently be changed or superseded.

We hope that this letter responds adequately to your questions.

Sincerely,

MICHAEL A. BROWN,
General Counsel.

Enclosures.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., August 10, 1976.

Mr. MICHAEL BROWN,
*General Counsel, U.S. Consumer Product Safety Commission,
Washington, D.C.*

DEAR MR. BROWN: In accordance with the conversation between a member of the staff of U.S. Rep. Dodd and Margaret Freeston of your office, we formally request an advisory opinion on the following:

(1) Whether the term "consumer", as used in Sec. 2051, Title 15, U.S.C., is meant to include institutional populations, such as those in prisons or mental health facilities.

(2) Whether the Consumer Product Safety Commission has the legal authority, pursuant to the Flammable Fabrics Act or the Consumer Product Safety Act, to promulgate a consumer product safety standard applicable only to sub-groups of the general public.

We would appreciate it if your office would expedite this request. Thank you for your cooperation.

Sincerely,

STEWART B. MCKINNEY,
Member of Congress.
CHRISTOPHER J. DODD,
Member of Congress.

Mr. DODD. The commission took the position that its standard was appropriate for the general public, because evidence exists that the threat to most people in most cases arises from accidental cigarette ignition of bedding in a nonconfined area, such as a home.

The commission took the position that it was up to State and local officials to deal with any special risks associated with open flame ignition of mattresses in confined, institutional settings.

Mr. Chairman, we do not argue with CPSC's general conclusion that the general public probably is protected by the cigarette test. However, we believe that under the law CPSC has the responsibility to protect the safety of those in special circumstances, as well.

In this regard, I believe that CPSC has failed to meet this responsibility.

In one letter to us, the commission even admits such a responsibility. I will quote from this letter of August 20, 1976, which discusses CPSC's authority under the Consumer Product Safety Act:

We believe that Congress' intent in providing such broad jurisdictional wording was that the commission should protect individuals from unsafe consumer products regardless of where the products are used, consumed, or enjoyed. We therefore believe that residents of prisons and mental health facilities are intended to be protected by the CPSA (the act) to the extent that they personally use, consume, or enjoy consumer product in those institutions.

The commission, unfortunately, has not pursued its words with appropriate action. I must wonder how many more deaths it might take.

What must be done is for Congress now to provide as much pressure as possible on CPSC to meet its responsibilities—to upgrade its mattress flammability standards through open flame testing. We should do this through legislation, if appropriate, or any other proper means, including letters expressing concern or calling the individuals

from the Consumer Products Safety Commission to begin the regulatory process in this particular area.

I also would suggest that Congress ask, or direct, the General Accounting Office to investigate CPSC's lack of action in this area and to determine why it has failed to protect the many residents in some of these public institutions.

In that regard, GAO on July 26, 1976, issued a disturbing report about what I consider to be serious shortcomings in CPSC's enforcement policy for insuring mattress flammability safety.

The report documents inadequate inspection: of the 1300 firms identified, only some 431 were inspected, and CPSC estimated it discovered a 30- to 40-percent noncompliance rate with these mattress manufacturers. This is noncompliance with the less stringent standard we are seeking to improve. This, to me, shows shocking lack of enforcement, and shocking conditions within the mattress industry.

I think GAO should make an in-depth probe of CPSC's efforts to determine the reasons for all this. I would request that the portions of the 1976 GAO report be placed in the hearing record, also.

Mr. LUKEN. Without objection they will be so admitted.

[The information referred to follows:]

REPORT TO THE CONGRESS BY THE COMPTROLLER GENERAL OF THE UNITED STATES—JULY 26, 1976

BETTER ENFORCEMENT OF SAFETY REQUIREMENTS NEEDED BY THE CONSUMER PRODUCT SAFETY COMMISSION

Safety requirements are issued by the Consumer Product Safety Commission to protect consumers from hazardous products. The Commission must insure that these requirements are followed and enforced.

The Commission (1) does not know whether safety requirements have been effectively implemented and (2) has not been timely or successful in referring cases to the Department of Justice for prosecuting those violating the requirements.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C.

B-139310.

To the President of the Senate and the Speaker of the House of Representatives:

This report discusses improvements, including a recommended legislative amendment, needed to insure that Consumer Product Safety Commission safety requirements are followed and enforced.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

The Commission was given an opportunity to provide written comments on the report's contents but did not do so. In interpreting its Freedom of Information Act policy, the Commission said it could not accept our draft reports for review and comment when we require that the drafts be safeguarded from premature public disclosure. Consequently, we are issuing the report without their written comments. However, we did discuss the report with Commission representatives and their views have been incorporated where appropriate.

Copies are being sent to the Director, Office of Management and Budget; the Attorney General; and the Chairman, Consumer Product Safety Commission.

ELMER B. STAATS,
Comptroller General of the United States.

* * * * *

Mattress flammability standards and labeling requirements

The Department of Commerce, under the Flammable Fabrics Act, issued mattress flammability standards that became effective in June 1973. The Com-

mission amended the mattress safety requirements in June 1973 (16 C.F.R. 302)—after the law was transferred to it. The Commission reissued them in December 1975 (16 C.F.R. 1632). These requirements are to protect the public against the unreasonable risk or mattress fires leading to death, personal injury, or considerable property damage and provide the test methods for determining a mattress' ignition resistance when exposed to lighted cigarettes.

Besides setting mattress flammability standards, the safety requirements (1) specify the testing equipment, procedures, and criteria for evaluating mattress flammability, (2) require manufacturers to (a) perform prototype and production testing, (b) keep records of mattresses produced and tested, and (c) label mattresses as complying with the standards, and (3) permit manufacturers to produce and sell noncomplying mattresses for 6 months after the standards' effective date, if labeled as not complying with the flammability standard.

By the summer of 1973, the Commission:

Identified about 2,050 mattress manufacturers from a Dun and Bradstreet listing and two trade associations' listings.

Sent each manufacturer copies of the safety requirements.

Requested each to inform the Commission of its compliance status. Also, firms producing noncomplying mattresses before December 1973 were asked to submit samples of the warning labels they planned to use to identify noncomplying mattresses. Of the 2,050 manufacturers, 686 responded.

The first of two Commission compliance programs was in the fall of 1973 and was directed at the 1,364 manufacturers who had not informed the Commission of their compliance status. Each area office was to perform a specified number of inspections and collect mattress samples from a certain number of manufacturers to be tested for conformity with the safety requirement. By mid-1974, 238 firms were inspected, of which 201 were subject to the mattress requirement—the other 37 were out of business or did not manufacture mattresses. Of the 201 firms, 30 violated the requirement and legal action was initiated against them. Most violations were against recordkeeping and testing requirements. Eleven of 69 mattresses sampled failed the Commission's flammability test and were found to be hazardous. The Commission did not seize any mattresses. Commission officials said that the firms did not have any more violative mattresses in their inventories or had removed violative mattresses from the market after being notified.

The second program, started in the summer of 1974, was to be the same as the first except that the area offices were to give special attention to firms suspected of noncompliance. The inspections were to determine whether the firms had made the required flammability tests and were complying with recordkeeping and labeling requirements.

The Commission inspected 193 firms—18 found in violation during the first program and 175 that responded to the Commission's letter. Thirty-five firms violated the recordkeeping and labeling requirements. Legal action was initiated against 26 of them; however, the Commissioners decided not to prosecute the other 9 because they were considered *de minimis*¹ violations.

Three of 15 mattresses tested failed flammability tests. One firm destroyed the remaining eight mattresses in inventory after being informed of the violation. A second firm's mattress failed a State test conducted for the Commission, but was found in compliance after the Commission conducted a followup test. A third firm attempted to recall violative mattresses after being advised that they failed the flammability test. It was able to locate and destroy 24 mattresses.

In December 1975 the Commission evaluated its two mattress compliance programs. Although not drawing a conclusion about the programs' effectiveness, the Commission estimated that there was a 30- to 40-percent noncompliance rate for those manufacturers inspected, due in part to the mattress industry's poor understanding of the mattress safety requirements and its legal obligations under them.

The evaluation concluded that (1) the changing composition of the industry (firms continuously enter and leave) and the communication problems that result make compliance unlikely until a firm is inspected and (2) there is a lack or economic motivation which the Commission can use to stimulate increased compliance. The evaluation recommended that the Commission selectively pursue violations of safety requirements and develop criminal cases which could be significant, because only then would there be some impact on the industry.

¹ A violation that was a minor breach of the law or safety requirements.

New compliance program plans

In the spring of 1975, the Bureau of Compliance started developing plans for 10 compliance programs for fiscal year 1976. (See app. III.) The Bureau considered these 10 program categories the areas most needing compliance activity.

We reviewed the 10 planning documents (most were being prepared during our fieldwork) and discussed them with Commission officials to determine whether they provided, or would provide for (1) identifying and notifying firms of safety requirements, (2) inspecting firms on a sample basis for compliance, (3) following up on violations, and (4) evaluating the compliance effort's success.

Four of the 10 programs planned to provide all these elements—flammability of children's sleepwear, bicycles, fireworks, and monitoring cease and desist orders issued under the Flammable Fabrics Act. The other programs did not provide for some of following elements:

Four did not identify manufacturers, packagers, and importers of the products (special packaging of prescription drugs, special packaging of household chemical products, flammability of carpets and rugs, and children's toys).

Three did not (1) notify manufacturers, importers, and packagers of the compliance terms and (2) request them to inform the Commission of their compliance status (continuing guarantees manufacturers filed under the Flammable Fabrics Act, special packaging of household chemical products, and flammability of carpets and rugs).

* * * * *

Mr. DODD. At the very least, we should ask GAO to update its report to see whether the situation has improved or become worse.

Second, Mr. McKinney and I sent a detailed questionnaire to some 200 State health, corrections, and consumer officials throughout the country to gather evidence to define the magnitude of the mattress flammability problem and identify possible solutions to it.

We requested information detailing the extent to which polyurethane mattresses are used in public institutions in the States, how many fires have been reported due to these mattresses, whether any of the States have taken action to deal with the problem, et cetera.

The results are interesting. I shall summarize them and ask that the questionnaire and the summary results, with illustrative examples of the replies we have received, also be placed in the record.

Mr. LUKEN. Those will be admitted.

[The information referred to follows:]

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., July 1, 1976.

DEAR ———: Serious questions have been raised recently about the adequacy of present Federal safety standards regarding the flammability of polyurethane and other types of mattresses used in many public health and penal institutions throughout the country. We are greatly concerned about this problem, both as it relates to public institutions and to the general welfare of all consumers.

As stated in the enclosed article from the Norwich (Conn.) Bulletin, (Part three of a five-part series), polyurethane mattresses that are considered fire retardant undergo neither open flame tests nor time tests. However, mattresses of this type reportedly burn rapidly and emit a highly toxic gas when ignited by an open flame. A number of states have reported deaths and serious injuries in public institutions as a result of polyurethane mattress fires.

We have already formally asked the Consumer Product Safety Commission to re-evaluate its mattress standards in view of these recent questions. We also want to independently gather as much information as possible from health, corrections, and consumer officials throughout the country to best determine the magnitude of the problem and possible solutions to it.

To this end, we would greatly appreciate your answering the following questions to the extent that you consider appropriate.

To what extent are polyurethane or other types of mattresses used by public institutions under your jurisdiction? By private institutions and the general

public in your state? (Specific types and numbers of mattresses and types of institutions, i.e. prisons, hospitals, nursing homes, mental facilities, orphanages, etc., would be most helpful.)

Have there been any mattress fires in your jurisdiction? Can you attribute any deaths or injuries to this source? If so, how many, when, and specifically what types of mattresses were involved?

What action has been taken to correct the problem, or what have been the reasons such action has not been initiated? What were the costs involved, or what would be the potential costs?

Do you think that the current Federal standards for mattress flammability should be changed? If so, in what way? Would you support a change in the Federal regulations that would mandate an open flame test for all mattresses? Only for mattresses used in institutions? If your state has revised its standards, would you please send us a copy of the new regulations.

If you have any questions, do not hesitate to contact us personally or our assistant, Bruce Gwinn, at 202-225-2076. Please send your replies to us in care of "U.S. Representative Christopher J. Dodd, 429 Cannon House Office Building, Washington, D.C., 20515". Your replies to these questions and any other information you wish to send us will be most helpful. We appreciate your cooperation and prompt attention.

Sincerely,

CHRISTOPHER J. DODD,
Member of Congress.
STEWART B. MCKINNEY,
Member of Congress.

Enclosure.

TABULATION OF THE QUESTIONNAIRE SENT TO ALL FIFTY STATES AND THE TERRITORIES BY REPRESENTATIVE CHRISTOPHER J. DODD AND REPRESENTATIVE STEWART B. MCKINNEY, JULY 1976

At least 41 states, the District of Columbia, and Guam are using polyurethane mattresses in state institutions. The mattresses can be found in a variety of different facilities, including hospitals, mental institutions, and prisons.

Of the fires reported in these institutions, few officials would attribute deaths or injuries directly to the polyurethane mattresses.

Officials in 33 states, Washington, D.C., and Guam said that they were aware of the flammability/toxicity hazard, but only 23 states and Guam were replacing their polyurethane mattresses. However, at least 32 respondents expressed support for more specific, strictly enforced federal mattresses flammability regulations.

A number of states have banned the use of polyurethane mattresses completely, for example, Oregon and Nevada. Approximately 17 others are in the process of relacing polyurethane mattresses with cotton-filled or other type of mattresses.

The major reason why there has not been much action in this area is because few institutions have had major fires involving mattresses.

Most officials explained that, while they would like to replace the polyurethane mattresses in their states, budget constraints prohibit them from doing so.

As for toxicity, there seems to be much less concern for testing or regulations in this area. Although some officials noted the need for general guidelines in mattress safety, none of them addressed the toxicity problem directly.

The test which most officials would favor is the open-flame test, which is a much tougher hurdle for the most products than the cigarette-burn test.

Mr. DODD. We found that at least 41 States, Washington, D.C., and Guam are using polyurethane mattresses, that at least 34 jurisdictions were aware of the flammability/toxicity problems, but that only some 24 were moving to replace those mattresses. This replacement also is not 1 for 1, but in selected areas.

Even more importantly, officials in at least 32 States expressed support for upgrading the Federal mattress flammability standards. Some States have thought the problem so serious that they have banned the use of polyurethane mattresses completely. For example, Oregon and Nevada have banned their use entirely from their State institutions.

Connecticut, Nebraska, Vermont, and Virginia are phasing them out. California, New Mexico, Florida, South Carolina, and Arkansas do not use them at all. Hawaii, Minnesota, Montana, Oklahoma, South Dakota, and Washington use them sparingly.

A letter from the Texas Department of Mental Health and Mental Retardation is illustrative of this situation. When asked if it would support upgraded Federal standards, the department responded:

We strongly support revised Federal standards for mattress flammability which will protect all users from hazardous materials. We believe that mattress flammability tests should be developed which will more realistically establish the flammability characteristics of mattresses when they are exposed to actual conditions such as bed linens which have become ignited, or mattress fires which have been deliberately set. Our tests indicated that the so-called cigarette test is not an effective test.

Third, Mr. McKinney and I met with industry representatives, who I must say do seem to be concerned about the fire problems with their mattresses. These industry people agreed with us about the problems and that the standards should be upgraded to include an open flame tests for polyurethane mattresses, particularly in high-risk areas.

I understand the industry is working to devise such a test and has asked the Federal Government for technical advice. We should give them this assistance but independently pursue an improvement to the standards.

I think there probably will be disagreements as to how fast improved standards should become effective. We must move ahead as quickly as possible, is my feeling anyway, in this area.

I believe ample evidence then exists that the Federal Government must take swift action to deal with the mattress flammability threat. The National Bureau of Standards has conducted experiments supporting this action, and I would insert their findings into the records with your permission.

Mr. LUKEN. They will be inserted in the record.

[The information referred to follows:]

COMBUSTION OF MATTRESS EXPOSED TO FLAMING IGNITION SOURCES

Part 1. Full Scale Tests and Hazard Analysis

EXECUTIVE SUMMARY

In the past few years a number of serious, multiple life loss fires have occurred in health care institutions, specifically nursing homes, and in prisons. In many of these cases mattresses have been the initial or main fuel items. A mattress cigarette ignition standard (DOC FF 4-72) has been in force since 1973, but case histories indicate that additional measures may be necessary. In response to this need the National Bureau of Standards initiated a mattress flammability test program. The first part of the work has consisted of a series of full size room fire tests on institutional mattresses.

Two burn rooms, simulating patient rooms, were used for making the tests, permitting different ventilation conditions to be established. The rooms were instrumented for temperature, weight loss, heat flux, smoke obscuration, and flow velocity measurements. Ten mattresses and a fiberglass control mattress were subjected to a total of 21 tests. Included was a mattress associated with a serious nursing home fire and one associated with a prison fire. The mattresses were tested with a standard set of hospital bedding in an otherwise unfurnished room and ignited with a small trash-filled polyethylene wastebasket.

In evaluating the test results we considered the potential of a mattress alone for causing room flashover and the development of untenable conditions within the

room of fire origin. Three tenability variables were identified—heat flux, gas concentration, and smoke obscuration.

The main findings of the study were:

(1) The evaluation revealed four distinct groups into which the test mattresses could be placed; in order of safety:

A. Those that did not cause any of the tenability criteria to be exceeded for the duration of the 30-minute test. Two cotton batting mattresses were in this group.

B. Those that did not exceed the flashover criterion or the heat and toxic gas criteria; but exceeded the smoke obscuration criterion. Two neoprene foam core mattresses were in this group.

C. Those that exceeded all the tenability criteria but did not lead to full room involvement. Three polyurethane foam core mattresses and one of mixed fibers construction were in this group. The best performing of the polyurethane mattresses was associated with a multiple life loss prison fire.

D. Those that failed all criteria. One latex foam core and one polyurethane foam core mattress were in this group. The latex mattress was associated with a multiple life loss nursing home fire.

(2) Mattress core material type and total fuel content were the main variables governing rate of fire development.

(3) Mattress ticking was not an important variable in determining performance, when a sustained flaming ignition source is used.

(4) The main effect of an innerspring was to reduce the combustible content of the mattress.

(5) Polyurethane and latex foam mattresses showed a tendency to burn vigorously in a molten pool under the mattress.

(6) Some mattresses showed a better performance than the control (which included the bedding and the wastebasket). This effect was interpreted as a possible quenching action, either chemical or physical, of the mattress.

(7) The effect of restricted ventilation within a given compartment was to lower the peak burning rate but not the time to reach the peak. Increased carbon monoxide levels were also developed.

Mr. DODD. The Consumer Product Safety Commission must stop being a follower in this endeavor, especially since lives are at stake.

This is the first opportunity I am aware of that we have actually had a congressional committee taking a specific interest in this area. I am grateful, and I know many people who are as interested.

I might add as an aside, there is work going on, not just in this country on this issue but I was—last month I happened to be in England on a delegation with the Parliament of Europe, and discovered that a member of Parliament by the name of Ron Brown, who was an employee in the manufacturing of furniture in that country for years, has for the past couple of years been very involved in trying to set standards as well in Britain and has brought the issue up before the Parliament of Europe with the nine member nations in that international body.

So there is more going on across the globe, not just here in the United States.

I thank you. I would be glad to try to answer some of the questions I am sure you might have.

[Mr. Dodd's prepared statement follows:]

STATEMENT OF HON. CHRISTOPHER J. DODD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Mr. Chairman and members of the Subcommittee on Consumer Protection, I appreciate greatly the opportunity to appear before you today to testify in support of upgrading federal safety standards for mattresses and other padding materials used in public health and penal institutions throughout this country.

I would like to say it is a pleasure for me to be here this morning, Mr. Chairman, but it is not.

Actually, I would have preferred that it was not necessary for a Member of Congress, or anyone else for that matter, to come before a committee anywhere to speak about the absolute necessity for such stricter safety standards.

I would have preferred that those responsible for the well-being of the thousands of Americans who reside in such institutions would have long ago heeded the warning signals about the extreme fire risks from certain types of bedding and padding.

I am, of course, mainly speaking about bedding and padding manufactured of the plastic, foam-like substance known as "polyurethane."

I would have preferred that the federal agency charged with protecting users of such materials in these institutions, the Consumer Product Safety Commission (CPSC), would have long ago recognized these same warning signals and acted responsibly to minimize this danger.

Sadly, Mr. Chairman, this is not the case in most instances.

To their credit, some state corrections and health officials recognized these signals—countless fires stemming from polyurethane or other foam-type mattresses in prisons and nursing homes throughout the country. These officials instituted changes to increase fire protection.

However, many other states have yet to institute such improvements.

And the Consumer Product Safety Commission has, during the past year, dismissed any suggestions that it upgrade the flammability standards for polyurethane mattresses.

Mr. Chairman, it has taken the deaths of 42 inmates at a jail in Tennessee for nationwide attention to again be focused on this problem. Suddenly the CPSC is sending people over to my office to discuss the issue, for example.

In all fairness, one could not say whether the lives of these 42 Tennessee inmates would have been saved if the Consumer Product Safety Commission had acted expeditiously one year ago, when I and my colleague from Connecticut, the Hon. Stewart B. McKinney, asked it to upgrade polyurethane mattress standards.

But at least one could say that a federal government agency had not virtually swept aside warnings and pleas that it deal with a safety hazard it by law is responsible for eradicating.

At least one also could say that we are not one year behind where we should have been in making progress against this threat to many lives.

Mr. Chairman, Mr. McKinney and I became involved in this area after a newspaper in my Congressional District, the Norwich (Conn.) Bulletin, produced an excellent investigative series about the national and local problems presented by polyurethane mattresses.

Serious questions were raised about the safety of the mattresses in Connecticut's public institutions and those around the nation.

The Bulletin made the case convincingly that existing federal safety standards regarding the flammability of such mattresses are inadequate to prevent death or serious injury.

It was apparent that the government should have closely reviewed existing mattress flammability standards as soon as possible to determine how to make them more stringent.

It was apparent that the existing test mandated to determine mattress safety, the so-called "cigarette test," was terribly inadequate, and that a stricter "open flame test" was needed.

Let me briefly describe the hazards of polyurethane mattresses, and in so doing, I would point out that these problems threaten not only those who live in confined places, such as prisons, nursing homes, state mental hospitals, orphanages, etc. They also threaten every other consumer who sleeps on a polyurethane mattress in his or her private home.

Polyurethane mattresses apparently burn rapidly and emit highly toxic gases when ignited by an open flame. Considered fire retardant when new, this quality is removed from the product within six months to a year, when the chemical used to make them fire resistant apparently dissipates.

A polyurethane mattress reportedly will melt away when touched with a cigarette or similar contained heat source, but if it is exposed to an open flame, such as a match or torch, then there is the volatile ignition I mentioned before.

The present mattress flammability tests and standards administered by the CPSC do not appear to take into account the dissipation over time of the fire resistant chemical, the extreme combustibility of polyurethane from an open flame, and the special threats these conditions pose to those living in confined, institutional situations.

After reading the Bulletin's stories and making inquiries of my own, Mr. Chairman, it became clear to me that the federal government had a responsibility to ensure the safety of such products by enacting adequate flammability safety standards to minimize these risks, and thus the possibility of further deaths and injuries.

I would add that I also personally tested the hazards of polyurethane mattresses, under the supervision of one of the fire marshals in my District. We placed a mattress in a open area and touched it with a flame. The results were frightening. Within minutes the mattress was fully involved with flame.

The fire gave off billows of thick, black, choking smoke, and the heat was so intense that we were forced to move many yards away.

So Mr. McKinney and I began to consider what action to take to begin determining solutions to this problem. Here is what we did; here are the results of our actions so far; and here is what I believe must be done in the future in this area.

First, we wrote to the Consumer Product Safety Commission and asked it to re-evaluate its mattress flammability testing procedures and standards with the goal of upgrading them to ensure the safety for all who use such mattresses. We also asked the Commission for a legal opinion as to the extent of its authority and responsibility under the law to mandate standards not only for the general public, but for those who might form a less large group, a "sub-group" if you will such as prison inmates or mental hospital patients.

I would ask your permission to place our correspondence in the hearing record, for I think it is both enlightening and disheartening.

The Commission took the position that its standard was appropriate for the general public, because evidence exists that the threat to most people in most cases arises from accidental cigarette ignition of bedding in a non-confined area, such as a home.

The Commission took the position that it was up to state and local officials to deal with any special risks associated with open flame ignition of mattresses in confined, institutional settings.

Mr. Chairman, we don't argue with CPSC's general conclusion that the general public probably is protected by the cigarette test. However, we believe that under the law, CPSC has the responsibility to protect the safety of those in special circumstances, also.

In this regard, I believe that CPSC has failed to meet this responsibility.

In one letter to us, the Commission even admits such a responsibility. I will quote from this letter of August 20, 1976, which discusses CPSC's authority under the Consumer Product Safety Act:

"We believe that Congress' intent in providing such broad jurisdictional wording was that the Commission should protect individuals from unsafe consumer products regardless of where the products are used, consumed or enjoyed. We therefore believe that residents of prisons and mental health facilities are intended to be protected by the CPSA (the Act) to the extent that they personally use, consume, or enjoy consumer products in those institutions."

The Commission, unfortunately, has not pursued its words with appropriate action. I must wonder how many more deaths it might take.

What must be done is for Congress now to provide as much pressure as possible on CPSC to meet its responsibilities—to upgrade its mattress flammability standards through open flame testing. We should do this through legislation, if appropriate, or any other proper means—including many letters expressing our concern.

I also would suggest that Congress ask, or direct, the General Accounting Office to investigate CPSC's lack of action in this area and to determine why it has failed to protect the many residents of our public institutions.

In that regard, GAO on July 26, 1976, issued a disturbing report about what I consider to be serious shortcomings in CPSC's enforcement policy for ensuring mattress flammability safety.

The report documents inadequate inspection—of the 1,300 firms identified, only some 431 were inspected, and CPSC estimated it discovered a 30- to 40-percent noncompliance rate with these mattress manufacturers. This is non-compliance with the less stringent standard we are seeking to improve.

This, to me, shows shocking lack of enforcement, and shocking conditions within the mattress industry.

I think GAO should make an in-depth probe of CPSC's efforts to determine the reasons for all this. I would request that the portions of the 1976 GAO report be placed in the hearing record, also.

At the very least, we should ask GAO to update its report to see whether the situation has improved or become worse.

Second, Mr. McKinney and I sent a detailed questionnaire to some 200 state health, corrections and consumer officials throughout the country to gather evidence to define the magnitude of the mattress flammability problem and identify possible solutions to it.

We requested information detailing the extent to which polyurethane mattresses are used in public institutions in the States, how many have been reported due to these mattresses, whether any of the states have taken action to deal with the problem, etc.

The results are interesting. I shall summarize them and ask that the questionnaire and the summary results, with illustrative examples of the replies we have received, also be placed in the record.

We found that at least 41 states, Washington, D.C. and Guam are using polyurethane mattresses, that at least 34 jurisdictions were aware of the flammability/toxicity problems, but that only some 24 were moving to replace these mattresses. This replacement also is not one-for-one, but in selected areas.

Even more importantly, officials in at least 32 states expressed support for upgrading the federal mattress flammability standards.

Some states have thought the problem so serious that they have banned the use of polyurethane mattresses completely. For example, Oregon and Nevada have banned their use entirely from their state institutions.

Connecticut, Nebraska, Vermont and Virginia are phasing them out. California, New Mexico, Florida, South Carolina and Arkansas do not use them at all. Hawaii, Minnesota, Montana, Oklahoma, South Dakota and Washington use them sparingly.

A letter from the Texas Department of Mental Health and Mental Retardation is illustrative. When asked if it would support upgraded federal standards, the department responded:

"We strongly support revised Federal standards for mattress flammability which will protect all users from hazardous materials. We believe that mattress flammability tests should be developed which will more realistically establish the flammability characteristics of mattresses when they are exposed to actual conditions such as bed linens which have become ignited or mattress fires which been deliberately set. Out tests indicate that the so-called cigarette test is not an effective test."

Third, Mr. McKinney and I met with industry representatives, who I must say do seem to be concerned about the fire problems with their mattresses.

These industry people agreed with us about the problems and that the standards should be upgraded to include an open flame test for polyurethane mattresses used in "High-Risk" areas.

I understand the industry is working to devise such a test and has asked the federal government for technical advice. We should give them this assistance but independently pursue an improvement to the standards.

I think there probably will be disagreements as to how fast improved standards should become effective, also, we must move ahead as quickly as possible.

Mr. chairman, I believe ample evidence then exists that the federal government must take swift action to deal with the mattress flammability threat. The National Bureau of Standards has conducted experiments supporting this action, and I insert their findings into the record with your permission.

The Consumer Product Safety Commission must stop being a "follower" in this endeavor, especially since lives are at stake.

We in congress must do whatever we can to promote this effort. I think these hearings are a proper beginning, and I shall look forward to working with you in this effort.

Mr. LUKEN. Before calling on the gentleman from New York, I do have a comment, that it is to your credit and your colleague Mr. McKinney that you have investigated this matter that came to your attention.

I think as you indicate we are voices crying in the wilderness, because even though it is generally well known, and talking to the people in the industry, they all know and they all say that this mattress situation is a trap, the polyurethane situation, the flammability is there

when there is any degree of energy applied and the toxic fumes do result.

It is through a tragedy such as the Beverly Hills fire that we are provided the impulse to look into it. But after looking at it, it is incredible that the Federal authorities and local authorities have not taken any action. It is to your credit that you have, and you are pressing for action, because obviously something has to be done to eliminate this trap with regard to the polyurethane foam.

So I wanted to extend our congratulations and our thanks to you for appearing and contributing. We are going to have other witnesses on this same subject.

We also are going to have in response to your request oversight hearings in September on that very subject in addition to the hearings that we are holding right now.

The gentleman from New York.

Mr. SCHEUER. Thank you, Mr. Chairman.

I do not have any questions. I want to reiterate your commendation of the gentleman from Connecticut for his leadership, his zeal, and his drive in moving ahead in such a professional and hard-hitting manner.

I also wish to congratulate the chairman, Mr. Luken, from Ohio, for his leadership in putting together this hearing.

I think both of you have performed an outstanding public service and I think that all of your colleagues are grateful to you for it.

Mr. LUKEN. Thank you, Mr. Scheuer.

I note that later this morning we will hear from the Center for Fire Research. I understand they recently conducted tests on flammability of mattresses. If you care to, I know that you are suffering from the same problem as the rest of us, with this Chinese fire drill we are going through with these votes.

Mr. DODD. I am sure that is not an intended pun.

Mr. LUKEN. It seems that our figures of speech very frequently revolve around fires and flammability, do they not?

So I invite you to join the panel at any time.

Mr. DODD. I would be delighted. I appreciate that offer.

Mr. LUKEN. Thank you, Mr. Congressman.

Mr. DODD. Thank you.

Mr. LUKEN. Now we will start, at least, with Mr. Copeland.

We are pleased to have with us this morning Mr. Tom D. Copeland who is chief of fire prevention in the Division of Fire Prevention for the State of Tennessee, in Nashville, Tenn.

As we indicated, there have been some incidents in Tennessee of recent note. We would be pleased to hear from him on any subject which you wish to address, Mr. Copeland.

STATEMENT OF TOM D. COPELAND, CHIEF OF FIRE PREVENTION, DIVISION OF FIRE PREVENTION, NASHVILLE, TENN.

Mr. COPELAND. Thank you. We always appreciate the opportunity to be here today and discuss these fire safety issues. Indeed we had a tragic fire of our own and it did involve some of the products being discussed.

Our investigation into the fire was essentially along two lines: The arson section is investigating the fire for any violation of State arson

laws, and my section is investigating it to analyze the fire for purposes of determining its development, the building reaction to the fire, and anything we can do to prevent a similar occurrence.

I have a brief description of the fire here plus additional information has been provided to you to be used to document the questions that you asked and to assist you in your hearing.

On June 26, 1977, at approximately 1:45 p.m. a fire occurred in the Maury County Jail in Columbia, Tenn. The fire appears to have originated in the padded cell in which one person was being detained.

The approximately 6 feet by 10 feet padded cell had the walls lined with foam material to a height of about 6 feet. The foam material had a covering and was applied to a plywood backing. The foam was of two types—a butadiene-styrene and polyurethane. There are two types of covering materials—a neoprene and a polyvinyl chloride.

Jail personnel located in the dispatcher's office heard an indication that there was a fire. They responded to the area of the padded cell and opened the cell door. They were met with an outrush of heat and smoke and managed to remove the occupant of the cell.

It is reported that the area quickly filled with smoke, and the visitors were told to leave. In the confusion, the keys were lost for a period of time.

The fire department was called and responded. The main station is located one or two blocks away.

Most of the covering material in the cell was consumed. It is estimated that over half of the foam was consumed. Very little other material in the building contributed to the fire. The only other apparent combustibles in the corridor near the cell door were those associated with duct coverings and wiring.

The apparent significant areas of heat damage to the building included: a spalled area to the concrete beam in the padded cell ceiling, damage to the light fixture and air grilles in the padded cell, and the ceiling, ductwork, wiring, light fixtures, and equipment in the corridor ceiling.

There were extensive accumulations of smoke and soot throughout most of the facility.

The fire resulted in the death of 42 people. Nine of these were visitors. Twenty-nine were reported as injured.

We have a series of slides that give an overview of this fire and the building. The sketch shown here was prepared by the subcommittee staff. It does have a few inaccuracies but it will serve the purpose of identifying the location of the slides. You are provided with additional sketches that more correctly reflect the design of the building.

If we could have the lights down, I will show you the slides.

[Slide No. 1.]

If you have any questions in addition to the description of the slide, I would be happy to answer them.

This slide is of the jail viewed from the south side. The building is somewhat over 7,000 square feet in area.

Mr. LUKEN. One-story building?

Mr. COPELAND. One-story building, concrete masonry units for partitions and walls.

Mr. LUKEN. No basement?

Mr. COPELAND. No basement. It had a crawl space but no basement.

Roof of reinforced concrete primarily.

[Slide No. 2.]

This slide shows the east wing entry. The padded cell is located just beyond the stairway approximately where the smoke is shown. There is no window to that cell.

[Slide No. 3.]

The other one was the east entry.

This slide shows the west entry.

[Slide No. 4.]

This slide views the lobby from the west entry. The dispatcher's office is to the left.

[Slide No. 5.]

This slide is taken from the lobby looking north with the dispatcher's office to the left.

[Slide No. 6.]

This slide is taken in the corridor looking east with the padded cell door in the background.

[Slide No. 7.]

This slide is of the padded cell door with the cell to the right.

[Slide No. 8.]

This slide is of the southeast corner of the padded cell showing the spalling and outside air vent in the ceiling.

[Slide No. 9.]

This slide shows the padded cell doorway with the light fixture in the upper left corner. The center grille is a supply air grille.

You will note here where the padding material lined the walls it is removed in this slide, it goes up about 6 feet to the door light.

[Slide No. 10.]

This slide shows the remains of the padded cell panels arranged as though the door were in the center of the picture and the panels were unfolded.

Mr. LUKEN. What materials did the panels consist of?

Mr. COPELAND. The foam material was of two types: A butadiene-styrene and polyurethane. The polyurethane was believed to be added during repairs.

Mr. LUKEN. Do you know if they have similar qualities when burning?

Mr. COPELAND. We have a representative from the National Bureau of Standards who is more capable of answering the technical questions. But from my standpoint, they are somewhat similar.

Mr. LUKEN. Thank you.

Mr. COPELAND. The remains of the foam are in the two panels closest to us and the two furthest away. The two near the center would be primarily wood remaining, plywood.

[Slide No. 11.]

This slide is taken from the north end of the workhouse. The visitor area is beyond the light-colored partition. The corridor would be beyond the light-colored partition.

Mr. LUKEN. When was this jail built? How old a facility is it?

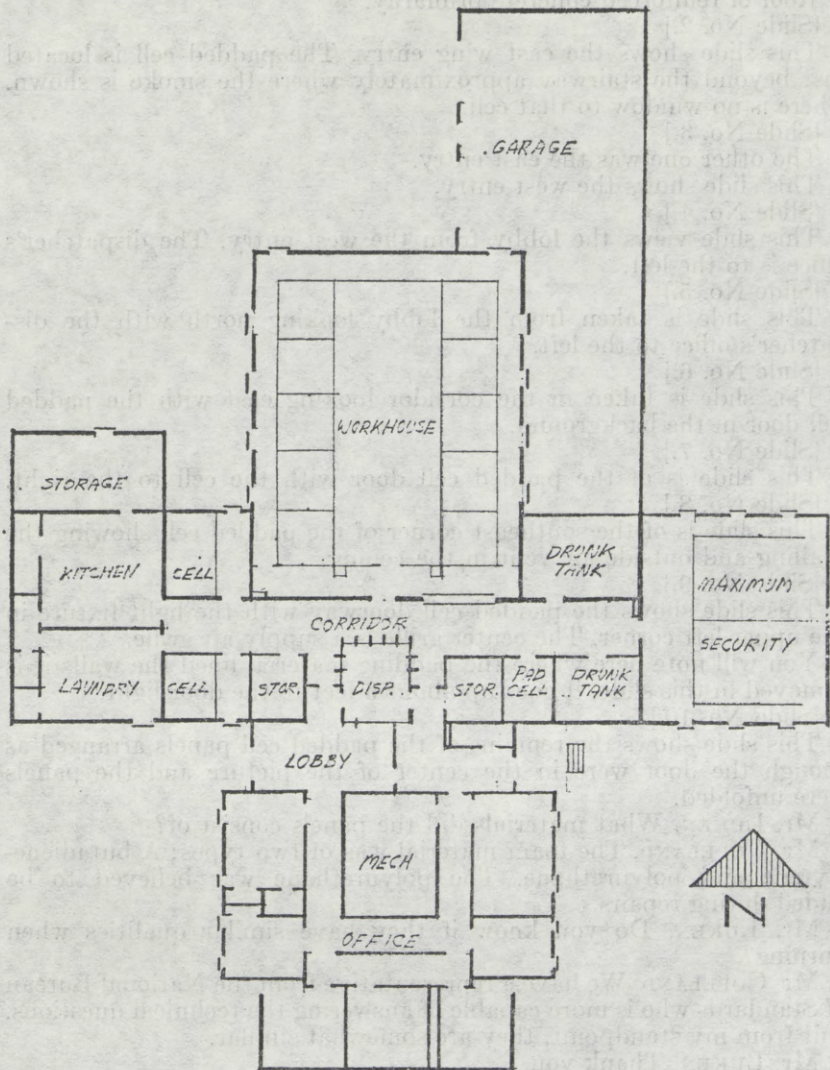
Mr. COPELAND. It is about 13 years old. It was constructed in 1963, probably occupied in 1964.

Mr. LUKEN. Proceed.

Mr. COPELAND. That is all of the slides.

If we may have the lights back.

[Attachment to Mr. Copeland's prepared statement follows:]



MAURY COUNTY JAIL
COLUMBIA, TENNESSEE

STATE OF TENNESSEE,
THE DEPARTMENT OF INSURANCE,
DIVISION OF FIRE PREVENTION,
Nashville, Tenn., July 27, 1977.

Subject: Hearing on Fire Prevention Study Act of 1977 (H.R. 7684).

Mr. BOB ECKHARDT,

Chairman, Subcommittee on Consumer Protection and Finance of the Committee on Interstate and Foreign Commerce, House Office Building Annex No. 2, Room 3161, Washington, D.C.

DEAR CHAIRMAN ECKHARDT: The following information is furnished in answer to the questions contained in your letter of July 15, 1977. These questions pertain to the Maury County Jail fire of June 26, 1977, in Columbia, Tennessee, as well as state and local laws and regulations relevant thereto.

1. A detailed description of the fire will be given orally at the Subcommittee Hearing on July 29, 1977.

2. The investigation of the Columbia fire by the Tennessee State Fire Marshal's Office has proceeded essentially along two avenues. The Arson Section has sought to obtain information and testimony concerning possible violation of state arson laws. Meanwhile, the Plans Review/Engineering Section has analyzed this fire for purposes of determining its development, the building reaction to the fire, and feasible methods of preventing similar occurrences in the future.

With respect to the cause of the fire and the resulting deaths, it should be emphasized that the state's investigation is still in progress. At this time, however, it appears that ignition resulted from a lighted cigarette provided by a person in the corridor to the occupant of the padded cell. (This theory is based on statements by the person supplying the cigarette and statements attributed to the padded cell occupant.) No other likely source of ignition (such as electrical) has been discovered.

Attached are copies of death certificates on the victims and the results of ten blood tests performed by the Tennessee Department of Safety.

3. The building was constructed in 1963.

4. Title 53, Chapter 25 of the Tennessee Code Annotated (enacted in 1947 and subsequently amended from time to time) establishes standards for the construction of municipal, county, state, and private buildings. At the time the Maury County Jail was built, under his regulatory authority granted in these statutes, the State Fire Marshal had adopted the 1962-63 edition of the National Fire Protection Association's National Fire Codes and the 1960-61 edition of the Southern Standard Building Code as required minimum standards of fire prevention in Tennessee. The State Fire Marshal's regulations had been amended so as to make effective the 1976 editions of the National Fire Codes and the Standard Building Code at the time of the fire. The referenced codes include provisions dealing with correctional facilities. Due to their unique function and anticipated threats, such institutions are typically regulated differently from other public assembly halls. (For example, penal institutions are allowed to have locked egress doors.)

Regarding responsibility for enforcement of applicable codes at the time of construction, T.C.A. Section 53-2416 authorized, but did not require (except on request), inspections of "any or all buildings or premises" under the State Fire Marshal's jurisdiction. The State Fire Marshal's Office conducted no inspections of the Maury County Jail prior to the fire. In 1973, the Tennessee Department of Correction was directed by statute to establish minimum standards for local jails and to inspect all local jails for compliance with such standards at least once a year (T.C.A. Section 41-1144). Copies of Maury County Jail inspection reports filed pursuant to that legislation by the Department of Correction are attached hereto.

The Tennessee General Assembly empowered municipalities to adopt model building and fire safety codes by ordinance in 1951 (T.C.A. Section 6-621). At the time of construction, the effective standard in the City of Columbia was the 1960-1961 edition of the Southern Standard Building Code.

On December 19, 1963, Columbia adopted the 1960 edition of the Fire Prevention Code recommended by the National Board of Fire Underwriters. When the fire occurred, the applicable city codes were the 1976 Standard Building Code with the 1977 amendments and the 1970 American Insurance Association's Fire Prevention Code. It should also be noted that T.C.A. Section 53-2539 (1947) grants to the appropriate local officials "concurrent jurisdiction" with the State Fire Marshal to enforce state building regulations.

Yearly inspections of the Maury County Jail were conducted by the Columbia Fire Department beginning in 1965. The most recent inspection took place on June 16, 1977. (Some of the inspection reports have been damaged or lost in storage. Available reports are attached.) Through contact with the Columbia Fire Department Inspector, it was learned that, although no citations were issued, some violations of applicable fire safety standards were noted. Some reinspections were made for observation of corrections.

Several items of additional information are attached; this information should be self-explanatory. Some of the information is preliminary and may be subject to correction.

It is hoped that this information will be of benefit to you. If you have additional questions, please feel free to contact this office.

Very truly yours,

TOM D. COPELAND,
Chief of Fire Protection.

That is all of the formal testimony I have. I can answer questions specifically if you like.

Mr. LUKEN. Mr. Copeland, I understand from your testimony that the foam and covering materials were the only things that were burned in this jail fire; is that right?

Mr. COPELAND. Plus what was added by the plywood. But that is virtually all that was involved.

Mr. LUKEN. Well, in your opinion, the smoke and fumes came principally from the foam of the covering materials; is that right?

Mr. COPELAND. That is right.

Mr. LUKEN. The foam is a polyurethane?

Mr. COPELAND. A polyurethane, butadiene styrene.

Mr. LUKEN. Which to your knowledge are similar?

Mr. COPELAND. One is a rubber type and one is a plastic type.

Mr. LUKEN. All right.

In the flammability characteristics, in fumes which they give off, are they similar, to your knowledge?

Mr. COPELAND. The different plastics and the different rubbers have various chemical makeups and the fumes that would be given off can vary significantly, but from a layman's standpoint I believe you would say there would be heavy smoke given off from these materials.

Mr. LUKEN. The 42 victims died from what we commonly call smoke inhalation, is that right?

Mr. COPELAND. Yes; the death certificates include carbon monoxide poisoning due to smoke inhalation.

Mr. LUKEN. The smoke inhalation covers a number of things, is that right?

Mr. COPELAND. Yes, sir.

Mr. LUKEN. Such as what?

Mr. COPELAND. In my terminology it would be gases, smoke, possibly even suffocation due to either buildup of foreign material in your airways or elimination of oxygen.

Mr. LUKEN. Suffocation and carbon monoxide, are they not virtually the same thing, deprivation of oxygen?

Mr. COPELAND. It gets into medical technology, it is difficult for me, but I believe there would be some difference.

Mr. LUKEN. There would be some difference, but they do have a common characteristic, which is the lack of oxygen, is that right?

Mr. COPELAND. Yes.

Mr. LUKEN. The covering was polyvinyl chloride, is that right?

Mr. COPELAND. The repair covering was a polyvinyl chloride; the original covering was a neoprene.

Mr. LUKEN. I do not know if you testified as to what characteristics burning polyvinyl chloride have. Do you know?

Mr. COPELAND. No, sir.

Mr. LUKEN. Do you know?

Mr. COPELAND. No, sir.

Mr. LUKEN. You do not know?

Mr. COPELAND. No, sir.

Mr. LUKEN. Were there autopsies performed on the victims?

Mr. COPELAND. There were autopsies performed on two of the victims. I do not have copies of those as yet, they are still in preparation.

Mr. LUKEN. Only on two?

Mr. COPELAND. Yes, sir.

Mr. LUKEN. Does anyone have the results of those autopsies?

Mr. COPELAND. The pathologist for the hospital, is performing it and our office has not received them yet. We are in the process of securing them.

Mr. LUKEN. There is no one here who can testify to that, as far as you know?

Mr. COPELAND. Unless Dr. Burke is able to. You have copies of the 10 blood samples that were performed by our crime lab.

Mr. LUKEN. So even though there were no autopsies performed, there were blood samples made, is that right?

Mr. COPELAND. On 10 of the victims.

Mr. LUKEN. On 10. When were those tests made?

Mr. COPELAND. They were made initially the night of the fire, and I assume subsequent tests continue to be run.

Mr. LUKEN. It is important that those tests be made promptly, is that right?

Mr. COPELAND. Yes.

Mr. LUKEN. Do you know whether there were any poisons found in the bloodstream of those 10 other than carbon monoxide?

Mr. COPELAND. The test reports indicate that a test for cyanide was made and that they did detect cyanide. The levels are shown in the test reports. The levels have meaning to medical personnel but not much meaning to me.

Mr. LUKEN. Were the levels, to your knowledge, in some of the victims of lethal proportions?

Mr. COPELAND. That is the problem, I do not know what levels determine lethal dosage.

Mr. LUKEN. They were of significant proportion?

Mr. COPELAND. I am sorry, I am not evading, but I am not familiar with that terminology.

Mr. LUKEN. Relatively high levels of cyanide found in the victims?

Mr. COPELAND. As I recall the night of the fire, the next morning, terminology used to us from our crime laboratory was to the effect that they were moderate to relatively high levels.

Mr. LUKEN. Of course cyanide is not good for one's health, right?

Mr. COPELAND. Absolutely.

Mr. LUKEN. Would the polyvinyl chloride covering be capable of emitting cyanide?

Mr. COPELAND. I believe it is urethane that has the cyanide.

Mr. LUKEN. To your knowledge, the urethane gives off the cyanide, is that correct?

Mr. COPELAND. If memory serve me correctly, yes.

Mr. LUKEN. So to your knowledge, we are really not sure whether these victims suffered death by carbon monoxide or cyanide?

Mr. COPELAND. The death certificates show carbon monoxide.

Mr. LUKEN. They also show contributing effects of cyanide.

Mr. COPELAND. The death certificates do not. Criminal laboratory reports indicate a test for cyanide and for alcohol.

Mr. LUKEN. All right. Have you made a subsequent analysis of the foam?

Mr. COPELAND. Our crime laboratory has determined the generic name for the foams. We have not received our reports yet from the National Bureau of Standards, which was also furnished samples of the foam material.

Mr. LUKEN. What fire code was in effect to cover the Maury County jail at the time of the fire?

Mr. COPELAND. At the State level we had the 1960-61 edition of the Southern Standard Building Code and the 1962-63 editions of the National Fire Protection Association's National Fire Codes.

Mr. LUKEN. Therefore, it incorporates one of the national fire model codes, is that right?

Mr. COPELAND. That is right.

Mr. LUKEN. How many model codes are there?

Mr. COPELAND. Three or four, depending on terminology.

Mr. LUKEN. Do they vary significantly?

Mr. COPELAND. They vary less now than they did in past times, but there are areas of differences.

Mr. LUKEN. Significant areas of difference, in your opinion?

Mr. COPELAND. In different areas, yes.

Mr. LUKEN. In some areas there are significant differences?

Mr. COPELAND. Yes.

Mr. LUKEN. Is there a difference between a building code and the lifesaving code?

Mr. COPELAND. Yes, sir.

Mr. LUKEN. In your opinion and experience—how long have you been in this field?

Mr. COPELAND. I have been with the Tennessee Division of Fire Prevention over a year now, and previously a year and a half as a consultant, for a year in various avenues.

Mr. LUKEN. It is possible to have a good building code without having a good lifesaving code?

Mr. COPELAND. That would be possible; yes.

Mr. LUKEN. What are the different elements of lifesaving that are not necessarily contained in the building code?

Mr. COPELAND. Typically, sometimes the building codes would not treat in detail specific exit requirements and features relative to egress and what we might term people's safety, although some of the model codes do have provisions more stringent than the fire codes.

Mr. LUKEN. So that we could have a fire code if the author of a fire code was sensitive to property damage, but not necessarily to lifesaving, we could have an excellent fire code as far as the building code is concerned without having a good lifesaving code, right?

Mr. COPELAND. That is possible; yes.

Mr. LUKEN. Would the code that you had require a testing of the padding before it was put in the jail?

Mr. COPELAND. That is a difficult question as to whether this would be covered by the code or not.

Mr. LUKEN. Why would it be difficult?

Mr. COPELAND. It is hard to determine whether in this particular instance the padding was an interior finish or an interior furnishing.

Mr. LUKEN. So that the code is vague as to what is interior finish and what is interior furnishing; is that right?

Mr. COPELAND. In the practical applications it is difficult sometimes; yes. When does a fixture on the wall become part of the finish or part of the furnishings?

Mr. LUKEN. Is there any Federal standard that you are aware of that would apply?

Mr. COPELAND. Not that I am aware of.

Mr. LUKEN. There are Federal standards with regard to flammable fabrics, correct?

Mr. COPELAND. Yes.

Mr. LUKEN. But those to your knowledge do not apply when those fabrics are attached to the real estate, is that correct?

Mr. COPELAND. As I recall, I think that would be correct.

Mr. LUKEN. I take it from your answers that the State did have responsibility for enforcing the fire codes with regard to the Maury County jail?

Mr. COPELAND. No, sir. We had no responsibility for enforcing the code nor making inspections. We had adopted the codes as minimum fire safety standards in the State.

Mr. LUKEN. Who had the responsibility for enforcement?

Mr. COPELAND. There was no responsibility for enforcement, per se.

Mr. LUKEN. There is no responsibility for enforcement as to the Maury County jail in which 42 people were killed?

Mr. COPELAND. In perspective there should be—there would be a moral responsibility perhaps, but there is no requirement requiring the State to perform inspections at the fire marshal's level. Subsequent to—

Mr. LUKEN. I asked about local and State.

Mr. COPELAND. The local level, they had adopted the same building code and I am not familiar enough with their regulation as to whether they were actually required to perform inspections.

Mr. LUKEN. Do you know whether the local authorities inspected the jails?

Mr. COPELAND. Yes. In the materials furnished to you there are copies of special reports beginning I think about 1965, where the fire safety inspector did make yearly inspections.

Mr. LUKEN. Was there mention made of those inspections of the padded cell?

Mr. COPELAND. The copies that we have are very difficult to read, but I do not believe there are any indications of that.

Mr. LUKEN. Were there any other combustible materials in the building?

Mr. COPELAND. The building itself was essentially noncombustible. The combustibles in the building included the materials we described in the cell, the mattresses, personal belongings, clothing and other effects that you would normally find there.

Mr. LUKEN. Would you say there was a certain amount of complacency in this instance, and in many other instances of modern

buildings which are relatively noncombustible, that they were pretty much immune from fire and loss of life?

Mr. COPELAND. In my profession I often hear the statement, "There is nothing here to burn," meaning that the building is not combustible.

Mr. LUKEN. In this case they thought it was not combustible?

Mr. COPELAND. Whether they thought that, I am not sure, but many people do; yes.

Mr. LUKEN. Therefore that can become a trap, can it not?

Mr. COPELAND. Absolutely.

Mr. LUKEN. In this case. Are you aware of other cases where this has happened?

Mr. COPELAND. It is difficult to pinpoint it, but I would like to say, often people say, "I don't have to worry; there is nothing here to burn."

Mr. LUKEN. We have had two celebrated tragic fires in recent weeks. One of them was the Beverly Hills Country Club, a building built in 1970, a one-story building where we had extensive loss of life and apparently nothing much to burn.

Is there anyone other than your office that is the arbiter for determining what the codes actually say in such a city? Are you not the fire inspection department?

Mr. COPELAND. Yes; that is correct.

Mr. LUKEN. You are it?

Mr. COPELAND. In essence. We do have an appeals board that will hear certain appeals.

Mr. LUKEN. The appeals board considers controversies and appeals, right?

Mr. COPELAND. Right.

Mr. LUKEN. But as far as interpreting and applying the fire code in Tennessee, you are the office?

Mr. COPELAND. Yes.

Mr. LUKEN. If you do not know what it says, then you do not know who does?

Mr. COPELAND. That is right. Other than official interpretations by the codemaking bodies, but their input would not be—not have the same impact as our interpretation.

Mr. LUKEN. Are you familiar with the Federal Flammable Fabric Act?

Mr. COPELAND. To some extent.

Mr. LUKEN. That is a tongue twister.

Mr. COPELAND. To some extent.

Mr. LUKEN. I believe you have indicated that to your knowledge, it does not apply when those fabrics are attached to the real estate and become part of construction?

Mr. COPELAND. In my recollection, that is correct. I may be wrong.

Mr. LUKEN. Can you see any inconsistency to the argument that we should have a Flammable Fabric Act at the Federal level which protects the people against fabrics which are independent of the real estate, that does not protect them when they are a part of the real estate?

You have indicated that the Flammable Fabrics Act applies to fabrics. It would apply to polyurethane; and when in certain circum-

stances it is not applied to the real estate or becomes a part of the wall or a part of the real estate, it is part of the fire building code and would not apply, is that correct?

Mr. COPELAND. I think so. Our code relates to the interior finish and the building construction. Unfortunately, they do not have specific requirements for interior furnishings.

Mr. LUKEN. You heard Congressman Dodd testify.

Mr. COPELAND. Yes.

Mr. LUKEN. Do you have any comment on his testimony with regard to polyurethane contained in mattresses?

Mr. COPELAND. We need to know more about it and need to regulate something that is particularly hazardous.

Mr. LUKEN. Yes.

Mr. COPELAND. Do you find any action being taken at any level to contain the polyurethane that is in mattresses and many other furnishings?

Mr. COPELAND. When we are bound by our code, we haven't the opportunity to regulate mattresses by our code. We need to have more definitive test methods and ways of establishing the safety of such items, and we are at a loss to know how to specify mattress regulations or what to expect from them.

Mr. LUKEN. With regard to the fire in the restaurant in Kentucky, there have been newspaper reports to the effect there is polyurethane in the furnishings attached to the building. Does your code apply to that?

Mr. COPELAND. If it can be called interior finish, yes; it would, or if it is part of the building construction.

Mr. LUKEN. If it is not part of the building construction, it doesn't apply? We have an arbitrary distinction, and people could be killed by either one. In one case they are covered, and in other cases they are not.

Mr. COPELAND. That is right.

Mr. LUKEN. If there is nothing further that you have to add, Mr. Copeland, we have no more questions. We thank you very much for your testimony and exhibits, and your cooperation in attending.

We will have a 10-minute recess for this vote.

[Brief recess.]

Mr. LUKEN. We will resume this session of the Consumer Protection and Finance Subcommittee.

We are pleased to hear from Dr. Howard D. Tipton, Administrator, National Fire Prevention and Control Administration.

I understand you are accompanied by your Deputy. Do you want to introduce him?

STATEMENTS OF HOWARD TIPTON, ADMINISTRATOR, NATIONAL FIRE PREVENTION AND CONTROL ADMINISTRATION, ACCOMPANIED BY DAVID LUCHT, DEPUTY ADMINISTRATOR; JOHN W. LYONS, PH. D., DIRECTOR, CENTER FOR FIRE RESEARCH, NATIONAL BUREAU OF STANDARDS, DEPARTMENT OF COMMERCE

Mr. TIPTON. With me today is David Lucht, Deputy Administrator of the National Fire Prevention and Control Administration and former State fire marshal of the State of Ohio.

As the Administrator of the National Fire Prevention and Control Administration, I welcome the opportunity to testify on H.R. 7684, the Fire Prevention Study Act of 1977, and on the programs of the Fire Administration.

I note that H.R. 7684 specifies that the NFPCA will conduct the required study of the necessity and feasibility of establishing and enforcing Federal standards for fire prevention and control.

We are not supporting the bill because we believe authority for the study already exists in the Federal Fire Prevention and Control Act of 1974, our enabling legislation. We will consider conducting the study under this authority and will consider submitting a proposal for the study to the Department of Commerce for the 1979 budget. In addition, many of the existing programs which we have undertaken are designed to improve the conditions that do exist which are behind H.R. 7684.

The history of debate over the development, adoption, and enforcement of codes and standards in the United States is a long one. Recent milestones in Federal legislation having impact on the development of fire safety standards and their enforcement are the Occupational Safety and Health Act, the Consumer Product Safety Act, National Mobile Home Construction and Safety Standards Act, the act establishing the National Institute of Building Sciences and finally the proposed Voluntary Standards and Accreditation Act—S. 825 and its companion bill, H.R. 8184. The debate over these bills and experience with those programs already established should be examined in a study of the U.S. system for developing and implementing building and fire codes.

Fire protection codes and standards were examined by the National Commission on Fire Prevention and Control in its report "America Burning." While some progress toward improvement in our codes and standards and enforcement system has been made, the basic issues discussed in that 1973 report are still true. I will submit chapter 11 of "American Burning" for the record as an addendum to this testimony. During the course of that study, we did not suggest direct Federal intervention in the existing system [see p. 38]. The direction of H.R. 7684 is, of course, to examine in detail the need and feasibility for such action. Some have suggested that one means of strengthening public fire safety would be to mandate a minimum level of protection such as automatic sprinkler systems in all public occupancy buildings or to establish a minimum Federal building code with which all buildings must comply but which would permit more stringent requirements at the option of State or local government. These suggestions would naturally be subject to careful evaluation in any study of U.S. fire codes. On the other hand, States rights issues and local prerogatives certainly must be considered in any discussion of the subject.

I have previously stated to Congressman Luken my strong support for the programs recommended in the Commission's report "America Burning," which we have initiated in the Fire Administration with much interaction with the Center for Fire Research and private organizations such as the National Fire Protection Association. In the long run we believe that the programs established by the Federal Fire Prevention and Control Act are essential to the reduction of the tragic cost of fire.

With the Federal Fire Prevention and Control Act, we have for the first time in our history a national agency with a broad range of responsibility for the fire problem in the United States. The Fire Administration is addressing the fire problem in five specific areas.

The Center for Fire Research at the National Bureau of Standards provides technical support for the programs in the Fire Administration and a research basis for input into the voluntary standards system in the United States. The National Fire Safety and Research Office acts as a technology transfer agent in the areas of development of improved fire detection and suppression systems, protective equipment for firefighters, regulatory impact and community master planning concepts related to fire protection services.

A statistical basis for estimating the U.S. national fire losses and for the development and evaluation of various strategies for dealing with the U.S. fire problem is being developed by the National Fire Data Center within the NFPCA.

New public fire education techniques have been developed by the Fire Administration's Public Education Office to assist fire departments in their efforts to help the public. For example, manuals on smoke detectors for use by fire departments are being published. In addition, the Public Education Office has established pilot regional information and resource exchange centers with the fire service.

The National Fire Academy was established within the Fire Administration to provide a center for the development of curriculum materials for the fire protection community in general. This includes professionals in the fire prevention and suppression field and additionally architects and code enforcement officials. The Fire Academy will maintain a campus facility in Washington, D.C., for the purpose of providing unique advanced academic courses for the fire protection community and will establish a system of delivery through existing State and local programs.

Any major project regarding fire loss reduction must be conducted with a perspective on the overall "fire protection system" in the United States. We have to ask ourselves, is the system working? If it isn't working, what can be done to improve it? And, what is the Federal role in fire regulations?

By virtue of the fact that our recent fire disasters occurred, and the fact that the United States has the worst per capita fire loss record of any major industrialized nation in the world, it seems clear already that the system isn't working as well as it should. Success of the fire safety system depends on many organizations, individuals, and policy level decisionmakers on all levels of government. Policy level decisionmakers need to start by asking questions like, how safe are we? How safe do we want to be? And how safe can we afford to be?

I believe that one of the reasons that our system hasn't worked is that we have not specifically asked these questions, nor are we able to completely answer them. To measure safety, or to measure the costs and benefits of fire regulations, we need measurement tools. In the past we have not had a comprehensive set of fire data for the purpose of measuring our problems. Under section 6 of the Fire Prevention and Control Act of 1974, the National Fire Data Center has been created and has instituted a national fire incident reporting system. Thirteen States are now in various stages of joining this

system and standardized national fire data is now starting to accumulate. The output of the National Fire Data Center will enable Federal, State, and local officials to start making more informed decisions as a part of the regulatory process.

Government officials usually turn to the consensus standards and codes organizations for models upon which to base Federal, State, and local laws and regulations. Unfortunately, there is a confusing proliferation of model codes and standards which Government policy-makers must consider. There are at least 10 model building codes and fire codes published by 5 voluntary codes and standards making organizations, including the Building Officials and Code Administrators, International; the International Conference of Building Officials; the Southern Building Code Congress; the American Insurance Association; and the National Fire Protection Association.

Further compounding the problem for local and State officials is required adherence to standards adopted separately by various Federal agencies under their own assistance programs. For example, local officials may be required to enforce standards different from those adopted at the State or local level for nursing homes receiving medicare payments from the Department of Health, Education, and Welfare. Housing built with assistance or financed by guaranteed loans through the Department of Housing and Urban Development are required to be built to HUD's Minimum Property Standards. Again, local government officials have little basis upon which to measure the costs of these model regulations or the benefits.

Further, they lack the tools and experience to sell to the community on a proper cost/benefit basis, important life safety features such as automatic sprinkler protection. The administration's National Fire Safety and Research Office has just begun a study under section 12 of the Fire Prevention and Control Act to search for such measures.

Once Federal, State, or local officials establish legal mandatory requirements for fire safety in buildings, those requirements must be implemented. The minimum level of safety required by the laws and regulations must be achieved when the buildings are built and occupied, and that level of safety must be maintained for the life of the building. The implementation of these regulations again involves many organizations and individuals including building designers, building contractors, building code officials, fire officials, and building owners and managers. Obviously all of these individuals must be qualified to perform their various roles in the system. Architects must be qualified to make fire safety decisions and interpret and apply the fire codes and standards. I am told that only one university has established a required fire safety design course in its architecture curriculum.

The National Fire Academy has identified fire education and training needs for architects, engineers, interior designers, and code officials. Finally, building owners and managers share a special responsibility in assuring that the level of safety originally built into the building is maintained for the useful life of the building and that the operating staff is properly trained in emergency fire procedures.

Government organization and management are key aspects of the fire protection system. In our observations of local fire code enforcement, we have seen countless clashes, duplicative functions, and overlapping authority and responsibility between different organizational elements such as the building department and the fire department.

Traditionally the building official enforces the building code and determines the level of safety which is built into a new building. Subsequently, the fire chief enforces the fire prevention code which ostensibly maintains the building in a safe condition for the rest of its useful life. Oftentimes we hear the fire marshal or the fire chief complain that he is powerless to control the safety of the building when it is built. Many municipal building and fire departments collaborate and work together in these areas. On the other hand, in many cases the building official and the fire official barely speak to one another. These problems are real and are a definite impediment to the success of the fire safety regulation system.

All government agencies are hard pressed to meet all of the service demands of the public with available resources. Further, the ability of government to raise more resources is becoming more and more difficult. Most government jurisdictions are looking at reorganization possibilities to reduce duplication and provide more service for less money. Some jurisdictions are attempting to integrate functions of the police department and the fire department. In view of the issues I have just discussed, it might be better to consider the possibility of integrating the building department and the fire department to take maximum advantage of existing manpower resources.

When looking at the fire safety system in the United States, we also have to think about interjurisdictional impacts. For example, many States have adopted what has come to be termed "mini-maxi codes." Such building codes establish not only minimum levels of safety for all buildings in the State, but also maximum levels of safety.

In effect, these State codes preempt all local government jurisdictions from adopting fire safety requirements more stringent than those established by State officials. This approach causes significant problems for local government jurisdictions. For example, under section 10 of the Fire Prevention and Control Act, community fire protection master planning guides help the local community assess its fire situation, decide on an acceptable level of risk, examine alternatives for achieving an acceptable level of risk, assess the public sector and private sector costs of the alternatives, and initiate a plan of action to achieve the level of fire safety desired by the community. When a maximum is established by the State, superior local government alternatives cannot be pursued. This places a severe impediment on the local government jurisdiction.

Finally, the public has a role in the fire protection system. As I mentioned earlier, the Fire Administration's Public Education Office has developed improved public fire education techniques which help State and local personnel be more effective in educating the public about how to prevent fires and how to save themselves from fires which do occur. In addition, part of the public responsibility is complying with the legal requirements of Federal, State, and local jurisdictions with respect to fire safety. We would hope for voluntary compliance, but in some cases this does not occur and remedies in the form of fines and jail terms are instituted.

But, compare enforcement of fire safety regulations with that of traffic safety. Relatively rigorous enforcement is observed in the field of traffic safety. Each year in each city in the United States thousands of motorists pay fines for committing unsafe acts on our highways. At the same time thousands of unsafe conditions are in existence in all of

our cities in the form of exit doors that are locked closed, fire doors that are fixed in the open position with wooden wedges so that they could not possibly stop a fire, and built-in fire protection systems that are not properly maintained by building owners and managers. And yet as a matter of public policy our government officials have generally not taken a rigorous enforcement attitude. This is another issue which must be faced by our public officials. Compared with traffic safety, the rigor of our enforcement and the number of fines levied for gross violations of legally adopted fire codes and standards is miniscule.

In summary, Mr. Chairman, the National Fire Prevention and Control Administration and the Center for Fire Research at the National Bureau of Standards recognize the problems behind the study proposed under H.R. 7684. We are aggressively engaged in programs to assist in solving those problems and are considering conducting a study on fire codes under existing authority.

I do have a few personal prejudices which I would like to state. Some I have stated before. They are that the current Fire Administration programs are well conceived and essential to our national effort; that the existing system of standards development is a unique and desirable exercise in democracy which needs to be supported and strengthened where necessary; and finally that enforcement is critical; that is, the application of principles that have been learned again and again.

The tragic fires which recently occurred in Southgate, Ky., and Columbia, Tenn., probably will not bring us any great new revelations. I believe that the investigations of these fires will principally show a reoccurrence of lessons learned in the past many times over. I do believe that these tragedies underscore the basic failures in the fire safety system in the United States, and I pledge to you that we will be aggressive and objectively critical of the existing system in our current and future work. I firmly believe that all of us involved in this hearing are of the same mind—that the fires which occur in our country represent a needless waste of our human and economic resources. We should know and choose the best solutions.

[The attachment to Mr. Tipton's prepared statement follows:]

CODES AND STANDARDS

For centuries, governments have exercised the right to regulate how buildings are built for the sake of the public's protection. In the time of Julius Caesar, Roman laws regulated the height of buildings and the distances between them. During Queen Anne's reign, the English found it necessary to have a code to require non-combustible roofs. By the time of America's settlement, the legal concept of codes was well-established. In 1796, for example, the city of New Orleans, then a Spanish province, passed an ordinance against the use of wood roofs.

The public interest justifies these intrusions on individual liberty, but what constitutes the public interest has been a subject of debate and change. Is continuity of business operations in the public interest? States maintain that it is, thus justifying strict code requirements in private industrial plants.

Fire safety is only one aspect of the public interest—and, hence, only one of many matters governed by codes—but in the wake of major conflagrations that struck a number of American cities at the turn of the century, it became a concern of major importance. In 1905, the National Board of Fire Underwriters (now the American Insurance Association) developed and published the National Building Code, the first "model" building code. It had no legal status of its own, but was intended to provide guidance to State and local jurisdictions for the enactment of legal codes. Because its concern was principally central city areas, the areas emphasized converting downtown areas from combustible construction,

providing adequate separation between buildings, and providing area limits and fire-resistive separations within buildings.

Other model codes have been developed over the years: that of the Pacific Building Officials Conference (now the International Conference of Building Officials) in 1927, that of the Southern Building Code Congress in 1945, and that of the Building Officials Conference of America (now the Building Officials and Code Administrators International, Inc.) in 1950. All of these codes are subject to periodic updating.

None of the model codes is sufficient unto itself. All make references to extensive lists of standards developed by other organizations. These standards usually specify the performance a material or structural member must achieve under certain conditions. Standards are written by such organizations as the American National Standards Institute, the American Society for Testing and Materials, and the National Fire Protection Association.

In addition to the model building codes, there exists the Life Safety Code, published by the National Fire Protection Association. Its intent is to strengthen provisions for protecting the occupants of buildings, rather than saving the building itself. It covers construction, protection, and occupancy features relative to life safety.

Model codes are not the only source of construction regulations. The Federal Government exerts leverage on the construction industry through such documents as the Minimum Property Standards of the Department of Housing and Urban Development, the safety standards of the Occupational Safety and Health Administration, and the minimum requirements of the Department of Health, Education, and Welfare for grant programs or social security assistance.

LOCAL CODE PROVISIONS

The situation of the model codes is complicated, but not nearly as complicated as matters at the local level of code adoption. In addition to the *building code*, for which the model codes are intended to provide guidelines, State and local jurisdictions may have more than half a dozen other codes. A building code, of course, applies principally to new construction and alterations, though it is sometimes made retroactive and applied to existing buildings if past deficiencies are discovered to be critical. Once a building is constructed, a *fire prevention code* may govern the maintenance of the building and the introduction of materials into the building for the sake of fire safety.

Frequently there are other codes as well:

The *housing code*, which is concerned with livability and sets standards for sanitation and health facilities and building maintenance;

The *electrical code*, which sets requirements for the materials and equipment used in the electrical system;

The *plumbing code*, which provides for the delivery of potable water and the safe disposal of flushed wastes;

The *mechanical code*, which applies to the heating, ventilating, and air conditioning systems;

The *elevator code*, which governs the materials, equipment, and installation of elevators and their use.

In a city there may be as many kinds of inspectors as there are codes, of which only the fire prevention inspectors are likely to be members of the fire department.

The two most important codes from the standpoint of fire safety are the building code and the fire prevention code. Typically, two-thirds to three-fourths of the provisions of a building code apply to fire safety, as do all the provisions of a fire prevention code.

How these codes are adopted varies from one jurisdiction to another, but generally there are public hearings preceding action by the city council or the State legislature. Material manufacturers, suppliers, contractors, labor unions, trade associations, and civic groups are given the chance to support the proposed code or recommend changes. Considering that these groups often differ in their degree of expertise, that they make conflicting claims, and that some do not have fire safety uppermost in their minds, it is hardly surprising that codes are products of compromise amid competing aims and viewpoints. Nor is it surprising that there are wide differences among the 14,000 local building codes that exist in this country. As the National Commission on Urban Problems remarked in its 1968 report, "Building code jurisdictions are thousands of little kingdoms, each having its own way; what goes in one town won't go in another—and for no good reason."

Evidence of the diversity in local codes was discovered during that Commission's survey of the Nation's 52 largest cities. Only 14 were using one of the model codes, 20 had regulations based on the model codes but with significant changes, 13 had adopted codes of their own, and one followed a State-recommended code. (Four cities did not reply to the survey.) Differences among these local codes are not inconsequential; often the process of political compromise leads to serious compromise in fire safety. Here and there in this report we cite examples of tragic fires in buildings that met all local building code requirements.

Feeding the diversity among local codes are the differences among the national model codes. The model codes differ markedly in such matters as permissible heights and areas, interior finish requirements, and specifications of safe travel distances for occupants. At the local level, then, a spokesman for a particular point of view, whether on the side of leniency or stringency, can appeal to the authority of the one model building code which among the four best matches his position. If his subject is fire prevention codes, he has three model codes to pick from.

Attempts to develop some uniformity among the model codes have had limited success. The Model Code Standardization Council, which includes representatives from the Nation's building standards-writing organizations, has been working on uniform definitions of building construction terms and a common format for the model codes. The National Conference of States on Building Codes and Standards is working toward more uniformity in building codes on a state-wide basis. The Conference of American Building Officials is seeking to fill gaps in existing standards and to devise a system to promote and approve research toward better standards.

The most promising start toward greater uniformity came in 1971, when the four model code groups jointly published a "One- and Two-Family Dwelling Code." Having eliminated many of the past differences among model codes, the joint code has thus diminished the justification for wide differences in codes between one jurisdiction and another for single- and two-family residences. However, it has practically no fire safety provisions.

More disturbing than the wide differences among local codes is the fact that many jurisdictions have no codes whatsoever. When the National Commission on Urban Problems surveyed local governments in the United States (18,000 units surveyed), it found that only 46 percent had a building code. On the other hand, a more recent survey of 2,000 cities with over 10,000 population indicates that 97 percent of these cities have building codes. It is the sparsely settled areas, it can be surmised, which are chiefly without building codes. Though there are no statistics on how many jurisdictions have a fire prevention code, it appears there are a significant number of communities which do not have one in force. The Commission recommends that all local governmental units in the United States have in force an adequate building code and fire prevention code or adopt whichever they lack.

LOCAL IMPLEMENTATION OF CODES

A law is effective only to the extent that it is enforced, and so it is with a fire prevention or building code.

Many serious building fires have been the result, not of code deficiencies, but of lax enforcement (sometimes because of corruption). A fire-resistant floor, for example, is an insufficient barrier to smoke and fire if the architect allows gaps in the floor or a workman punches a big hole in the floor to allow a pipe to pass through. Vigilance is needed in the review of plans and in inspection during construction. Once construction is finished, compromises in fire safety may be hidden from view.

The training of inspectors is, in many places, woefully inadequate. In one major city, the only training for fire prevention inspectors consists of sending them out for a few days with a senior inspector. Architects and engineers complain about inflexibility in the codes, but one reason codes tend toward rigidity and detailed specifications is that local building officials and inspectors are not equipped, because of their inadequate training, to evaluate alternative solutions and tradeoffs.

The effectiveness of codes is also compromised by lack of coordination among inspection programs. The building department generally has responsibility for enforcing building codes, the fire department for enforcing fire prevention codes. Because fire prevention bureaus are responsible for fire safety throughout the life of a building, they ought to be consulted by building departments during the design and construction phases. In many local jurisdictions, however, building departments act unilaterally, implementing the building code during these crucial stages without requesting the suggestions and advice of the fire prevention bureau.

Since the two codes influence each other but require expertise specific to the enforcement of each, coordination of efforts between the two departments is needed to provide optimum fire protection. The Commission recommends that local governments provide the competent personnel, training programs for inspectors, and coordination among the various departments involved to enforce effectively the local building and fire prevention codes. Representatives from the fire department should participate in reviewing the fire safety aspects of plans for new building construction and alterations to old buildings.

STRENGTHENING THE MODEL CODES

Since the model codes exert a powerful influence on local codes, the quality of the model codes is a nationwide concern of considerable importance.

Historically, major changes in the model codes have been made when a particular fire problem achieves a certain magnitude (as is happening in response to high-rise fires) or when a dramatic fire or two focuses public attention on a problem (as happened in the wake of the Coconut Grove nightclub fire in Boston in 1942). The problem of smoke generation, which has been aggravated in recent years by the increased use of synthetic materials, has yet to receive adequate attention. Slowness of change except during crisis is typical of social institutions, but the consequences of that characteristic are, in this instance, vital to public safety.

One consequence of this mode of change is that new requirements tend to be piled upon old instead of replacing them. The result can be needless redundancy and added expense. In some model codes, for example, the addition of an automatic sprinkler system has not been accompanied by trade-off provisions on other fire safety features, such as height and area limitations, maximum travel distances, or the degree of fire-resistive construction.

The model codes have also been slow to respond to the rapid changes in materials and construction technology. Here the fault does not lie chiefly with the code-writing organizations, since their requirements in these areas usually make references to the standards set by other organizations. As we pointed out in Chapter 9, changes in materials and construction technology have threatened to outrun the standards-setting organizations and testing laboratories striving to keep up with the changes. As we have also pointed out, a firmer grounding of standards in a scientific understanding of fire and its effects would streamline the process of approving for use new materials and technology. Progress in this direction would also improve the codes. As it is now, both specification requirements (such as ½-inch thickness for gypsum sheathing) and performance standards (such as 3 hours of fire-resistiveness in certain bearing walls) are the product of judgments based on past experience or speculation, rather than firm knowledge of fire behavior.

The mechanisms for change to the model codes are similar in the International Conference of Building Officials, the Building Officials and Code Administrators International, and the Southern Building Code Congress. When a change is proposed, a code change committee holds hearings to consider opposing views, then studies the matter further and issues its recommendation. While the recommendation is voted on by the organization's membership, the committee's recommendation is usually adopted.

Sitting on these committees are local building officials, who often lack expertise in fire protection, and who in some instances are understandably reluctant to impose stringent requirements on industries which would directly affect local programs. The committee process is, moreover, a slow one.

While the Commission has no suggestions for improving the process whereby the model codes are amended, we do have two specific recommendations for strengthening the model codes. We are firm in our conviction that many lives could be saved, and many injuries averted, if homes were equipped with early-warning fire detectors and alarms. These can be effective sentinels, especially at night when so many tragic fires occur. No less important are early-warning detectors coupled with automatic extinguishing systems in buildings where many people congregate. Automatic sprinklers can pay for themselves in damages prevented, and the model codes should permit other savings by relaxing requirements for other fire safety features when automatic sprinklers are installed. The Commission recommends that, as the model code of the International Conference of Building Officials has already done, all model codes specify at least a single-station early-warning detector oriented to protect sleeping areas in every dwelling unit. Further, the model codes should specify automatic fire extinguishing systems and early-warning detectors for high-rise buildings and for low-rise buildings in which many

people congregate. (Examples of this last category include buildings of public assembly, such as theaters and exhibition halls, restaurants, and enclosed shopping center malls.) These recommendations apply as well to State and local jurisdictions, whether or not they follow one of the model building codes.

Of all the actions that can be taken to provide fire safety for Americans in their built environment, these, we believe, are the most important.

Mr. LUKEN. Mr. Tipton, yours is an agency, right?

Mr. TIPTON. Yes, sir.

Mr. LUKEN. An independent agency?

Mr. TIPTON. No, sir, we are a part of the U.S. Department of Commerce.

Mr. LUKEN. Is that all recommended in "America Burning"?

Mr. TIPTON. Our agency was recommended to be a part of the Department of Housing and Urban Development.

Mr. LUKEN. That is where it belongs, does it not? Speaking from your personal prejudices.

Mr. TIPTON. From my personal prejudices as former Executive Director of the National Commission, we felt at that time that fire prevention and control was really a local government issue, and that HUD had a closer relationship to local government than did Commerce.

Mr. LUKEN. I can understand your reasons for stating the conclusion and even the premise. You feel it is primarily a local government effort. Can we not start off with any investigation by following Thomas Jefferson's premise and Jerry Brown's premise that the government that governs least is best, and local government is better—we know all that.

We start off with those premises. Nobody wants to put the Federal Government into any business that it doesn't have to be in. The camel's nose should not be under the tent, and we can dispense with all those sometimes pious statements. We can also look at the burden of your testimony, at the burden of "America Burning," and we can come to the conclusion that fire prevention and fire codes—the whole state of fire prevention in our country is still in the Dark Ages, isn't it?

Mr. TIPTON. I would have to agree that much of what is the fire protection system in our country, because of the way it is handled, is—yes; that is correct.

Mr. LUKEN. That is the way I would like to approach this. I must admit I personally got into it under the impulse of a fire which killed 164 people in a restaurant and nightclub only 4 miles from downtown Cincinnati. As you and I have discussed this subject before, it is under the impulse of tragedies such as that, not only in the fire field, but in many fields, that people are reminded of what has to be done, and then they begin doing something about the subject.

I am not apologetic about having gotten into it on that basis, and I think that we should, if you will, capitalize on it. It is a tragedy that it has happened. We can't do anything about that. We had to capitalize on the fact that the attention of the public has been drawn to it, and if we recognize that one of the problems of fire prevention is complacency—inattention—"indifference" is the word that has been used. It was used in "America Burning," was it not?

Mr. TIPTON. Yes, sir.

Mr. LUKEN. "America Burning," for those of you who are not familiar with it, was the report of the National Commission on Fire Prevention and Control in 1972, out of which your agency was created; and it was meant to be a nationwide survey of the situation regarding fire prevention and firefighting in this country.

You would agree with the findings in H.R. 7684. You probably wrote them, didn't you?

Mr. TIPTON. No, sir.

Mr. LUKEN. You wrote them in "America Burning" and we lifted them.

Mr. TIPTON. That may be an indirect assistance; yes, sir.

Mr. LUKEN. You don't disagree with the findings, do you?

Mr. TIPTON. No, sir.

Mr. LUKEN. As a matter of fact, you have just stated many of the findings. One is indifference to lack of resources and inadequate attention to fire control problems in this Nation; that the environment in which Americans live and work presents unnecessary hazards of fire, and the fact that we have a higher incidence of loss of life per capita than other so-called civilized nations.

In an effort to get out of the Dark Ages, we ought to pay some attention to what we should be doing. Maybe H.R. 7684 isn't the answer, but at least it is going to focus some attention on it.

Mr. TIPTON. That is correct.

Mr. LUKEN. For those who want to come before this panel and say everything is jim-dandy and we don't want any improvements, I want to put them on notice that I don't think that is going to be the attitude of the subcommittee. You haven't reflected that attitude in your statement.

You say you are not supporting the bill because you believe authority for the study already exists in previous legislation. If you were to tell me that the study was ongoing and that we can have it in 3 or 4 months, then we could withdraw this legislation, but you can't tell me that, can you?

Mr. TIPTON. No, sir, I cannot. That doesn't mean we wouldn't like to conduct studies such as these, but we are a new agency and we haven't gotten to that place yet, but we certainly would consider it.

Mr. LUKEN. In other words, you are saying that in the existing legislation you have the authority for the study, but not the mandate, is that right?

Mr. TIPTON. Yes, sir, that is correct.

Mr. LUKEN. So you are telling us you are considering the matter?

Mr. TIPTON. Yes, sir.

Mr. LUKEN. But you don't want us to tell you what to do?

Mr. TIPTON. No, sir, I wouldn't say that to a Congressman.

Mr. LUKEN. I am trying to follow the logic of the situation. You say you have the authority and that is why you are not in favor of the bill. If the bill is for the purpose of mandating it, then you don't want us to tell you what to do?

Mr. TIPTON. I would be pleased to have you tell me what to do at any time. I don't mean to be facetious.

Mr. LUKEN. I didn't mean generally. I meant in this particular case you don't want us to tell you what to do.

Sometimes the Congress does leave these things to the discretion of the agency and I wouldn't fight that in some cases. We are not talking about general principles. I want to make sure where you are. There are others who will be testifying who are going to say that we shouldn't undertake such a study.

I want to make sure as far as possible where you are on the subject.

Mr. TIPTON. My personal feeling, as I stated in my testimony and stated to you previously, is that we have in many cases a fair set of codes. I am not saying there are not problems with the codes. There are some problems with the codes. But the problem much greater than the code is the enforcement of the codes, and I think that is a major issue in this country. As a former city manager at the local government level and Mr. Lucht, as a former State fire marshal, we have had a great deal of experience in code enforcement problems and we think that is a serious issue.

Mr. LUKE. This is law enforcement. What we are talking about is law enforcement as applied to crimes generally as opposed to crimes involving fire matters which would be arson, enforcement, and the like. The Federal laws with regard to law enforcement generally do provide Federal criminal laws, do they not?

Mr. TIPTON. Yes, sir.

Mr. LUKE. We have a Federal Bureau of Investigation to enforce it. The Federal Bureau of Investigation is of inestimable help in my experience to local governments, but we have no comparable situation in fire enforcement, do we?

Mr. TIPTON. That is correct.

Mr. LUKE. You are simply a research agent.

Mr. TIPTON. A research, education and training agency.

Mr. LUKE. I think it is fair to say when something happens, a major catastrophe or whatever, you are at the mercy of the local government in the sense that you have to be invited in. If the local government is efficient and invites you in, you might be able to operate effectively and if it does not you are not, is that right?

Mr. TIPTON. That is right.

Mr. LUKE. Should something happen in the line of a catastrophe and you do investigate it, what can you do about it except issue a press release?

Mr. TIPTON. We can learn from that investigation and through our education and training research abilities we can help to correct the problems that caused the fire.

Mr. LUKE. If you were part of HUD you might enlist the strong right arm of HUD in the matter.

Mr. TIPTON. That is correct.

Mr. LUKE. The Commerce Department doesn't have that same clout?

Mr. TIPTON. That is true.

Mr. LUKE. If you were given more authority as an enforcement agency, you would have more clout and more ability to investigate and to recommend.

Mr. TIPTON. That is right.

Mr. LUKE. Isn't it possible without going into the details, isn't it possible we could have some kind of Federal code which would be in some ways analogous to the general Federal Criminal Code, which

could give a Federal fire enforcement agency some limited powers which might be beneficial?

Mr. TIPTON. Yes; that is true.

Mr. LUKEN. Without detracting from the local government powers of fire enforcement and prevention?

Mr. TIPTON. I think that is basically true.

Mr. LUKEN. At least it is worth investigating, isn't it?

Mr. TIPTON. Yes, sir.

Mr. LUKEN. Nobody says the FBI is a national police force, which is impairing the city of Cincinnati police force's ability to carry out their duties, but it is an enforcement agency. They are not completely analogous.

What we are talking about in this bill is not adopting a Federal code, but undertaking a sincere study of the question and reporting back to the Congress.

Mr. TIPTON. Yes, sir.

Mr. LUKEN. To which I take it you have no objection?

Mr. TIPTON. That is correct. I am only concerned that we participate fully with all of the involved groups and that we show the kind of fair treatment to those groups who have worked for years to develop good codes in this country, diligently, and recognize the fact that enforcement is still a problem.

Mr. LUKEN. Let me ask you a couple of questions about specifics now.

You have heard the testimony about polyurethane here this morning with reference to the Flammable Fabrics Act—can you tell us what the Flammable Fabrics Act covers?

Mr. TIPTON. I really can't describe, because I am afraid my statement would be a gross generalization. I am sure others that follow me could speak to this. This is Dr. John Lyons of the Center for Fire Research.

STATEMENT OF JOHN W. LYONS, PH. D.

Dr. LYONS. As I understand the Flammable Fabrics Act, it covers all applications of textiles and specifically—you were discussing the textiles affixed to structures. I believe in general it does cover such textiles and I know for a fact there is indeed a mandatory standard under the Flammable Fabrics Act which covers fabric which is installed wall to wall, if that helps. There is no standard under CPSC's authority from that act that relates to textile products on walls per se.

Mr. LUKEN. Do you say it doesn't cover?

Dr. LYONS. I believe the Flammable Fabrics Act is very general in the application of textile products.

Mr. LUKEN. You say it applies, but there is no standard contained in this.

Dr. LYONS. That is correct, for wall covering, that is correct.

Mr. LUKEN. Is there a standard for furnishings such as things attached to the real estate?

Dr. LYONS. The upholstered covering, if it is considered a textile product or fabric, it would cover it. The scope of the act certainly would include that textile application.

Mr. LUKEN. We probably should be looking at obtaining the standard rather than questioning whether it applies.

Dr. LYONS. That is correct.

One other point. Urethane foam, as discussed here, or any other foam in general is not a textile product, and I think there might be some question about whether the covering over such foam as was in the jail cell was a textile product. It was, as I understand, a neoprene or PVC product. You would have to see if you could construe that to be a textile product.

Mr. LUKE. Mr. Tipton, there are several model building codes, is that right?

Mr. TIPTON. Yes, sir.

Mr. LUKE. Are the fire codes incorporated in the building codes?

Mr. TIPTON. They are separate from the building codes but fire protection requirements are obviously included in both.

Mr. LUKE. So they are overlapping, is that right?

Mr. TIPTON. In some cases they are overlapping, that is correct.

Mr. LUKE. What about sprinklers? Could you tell us something about the requirements for sprinkler systems with regard to these various codes? The model codes, that is.

Mr. TIPTON. We really can't talk about model codes. One of the dangers of this whole discussion is talking about building codes separate from fire codes. We really have to recognize that much fire protection is a part of the building code. Probably some 70 to 80 percent of the building code is for fire protection. Sprinklers are required in the model codes in many instances.

Mr. LUKE. In the fire codes or building codes?

Mr. TIPTON. In the building codes.

Mr. LUKE. But not in all instances?

Mr. TIPTON. Not in all instances. It depends upon the occupancy, that is correct.

Mr. LUKE. We do have model national building codes, is that right?

Mr. TIPTON. Yes, we have basically four model building codes.

Mr. LUKE. Is there a variation in the requirements for sprinklers in those codes?

Mr. TIPTON. Yes.

Mr. LUKE. What is that variation?

Mr. TIPTON. I am going to defer to Mr. Lucht if I get in too technical a position here.

Mr. LUKE. Do you want to refer that question to him?

Mr. TIPTON. It generally has to do with with—

Mr. LUKE. We are interested in the information and not the authorship.

Mr. TIPTON. Do you want to answer that question, Dave?

Mr. LUCHT. I think the four building codes all require sprinkler systems somewhere, in certain conditions. The conditions vary. For example, one building code may require sprinkler systems in a place of public assembly over 10,000 square feet in size. Another building code may require the same sprinkler system in a place of public assembly over 15,000 square feet in size so there are differences.

As far as the detail which triggers the requirement of sprinkler systems, not all codes are the same. I noticed this morning one common thread that seems to go through the model is, for example, a place like McCormack Place in Chicago that burned down 8 or 9 years ago. It was a place of public assembly, a large exhibition hall

loaded with the things you were referring to a few moments ago. It was a brandnew, modern building that burned completely down. The model codes reacted to that, and we now see in the models fairly good requirements for sprinkler systems in situations like that. There are consistencies, but none of the models are identical in sprinkler requirements.

Mr. LUKE. Could either of you give us your recommendations as to what requirements there should be in building codes and fire codes with regard to sprinklers?

Mr. TIPTON. I would like to make a general administration policy statement with respect to sprinklers and public occupancies. I made the statement after the Southgate fire and I still firmly believe it, that sprinkler systems should be in all buildings of public occupancy. We feel strongly that that should be a requirement. It isn't always required. We have the kind of situation in the Southgate fire where, looking at the codes, to the best of our knowledge today from what our investigation has shown to date, we believe that that building could not have complied with the 1955 National Building Code (AIA) without having sprinklers and without having firewalls.

Mr. LUKE. What is the 1955 building code?

Mr. TIPTON. The American Insurance Association's National Building Code.

Mr. LUKE. That is one of the four model codes?

Mr. TIPTON. Yes, sir.

Mr. LUKE. Could it have complied with any of the four model codes?

Mr. TIPTON. We haven't concluded our study in that area yet. I can't answer that question.

Mr. LUKE. Is the 1955 code that you are talking about one of tougher ones or one of the more lenient ones, or is it representative?

Mr. TIPTON. It would depend upon the situation. I would have to say it is representative.

Mr. LUKE. Is it a fair question?

Mr. TIPTON. It is a tough question. I would say it is representative.

Mr. LUKE. Let's go to smoke or fire detectors, particularly smoke detectors. I am getting the impression from my investigation that smoke detectors are something like polyurethane in mattresses and other things. It is a thing a lot of people know about but nobody is doing anything about it. What is your impression?

Mr. TIPTON. We have seen, just as a matter of market information, an increase in the marketing of smoke detectors from about 50,000 in 1971 annual sales to something over 1 million a month at this time, so people are buying them.

Mr. LUKE. That is still a drop in the bucket.

Mr. TIPTON. A great many homes—the great majority of homes don't have smoke detectors today, that is correct. We have a national public education program on now, as do other agencies. The National Fire Protection Association has been pushing smoke detectors. We are trying to get people to buy the detectors and put them in their homes.

Mr. LUKE. What is the cost? \$30?

Mr. TIPTON. It depends on whether it is a lead item. Anywhere from \$25 to \$50 for a good smoke detector.

Mr. LUKE. Which would work anywhere. Particularly it would be effective in a residential home, a residential dwelling.

Mr. TIPTON. Yes. And, of course, we are most vulnerable at night when we are asleep in bed.

Mr. LUKEN. Something like 80 percent of the deaths occur between 11 p.m., and 8 a.m.

Mr. TIPTON. I don't recall the number right now, but it is a very high number.

Mr. LUKEN. America Burning says so.

Mr. TIPTON. That keeps coming back to haunt me, but it has been a few years.

I would say anywhere from 60 to 80 percent. I can't say right now what is the current statistic.

Mr. LUKEN. Then we get back to the question of the rights of individuals. Whether the big, bad Federal Government should require people to save their lives.

Mr. TIPTON. That is right. Like seat belts.

Mr. LUKEN. The question before the House is, why is it that smoke detectors are not in the model codes? They are not, are they?

As I understand from the written testimony we have at the present time they are not required. Dr. Lyons, could you answer that?

Mr. TIPTON. I have a note here that some 21 States have now required smoke detectors in their statewide building code.

Mr. LUKEN. You don't know whether that is universal or in certain circumstances?

Mr. TIPTON. It is in new construction, I am sure, for residential. It is in new construction for residential.

Only Montgomery County, to my knowledge, here in Maryland, has a retroactive smoke detector law that requires all residences in Montgomery County have smoke detectors in a certain specified period of time.

Mr. LUKEN. Do any of the model codes require smoke detectors?

Mr. TIPTON. Some of them do.

Mr. LUKEN. But not all?

Mr. TIPTON. That is my best understanding, that is correct. Not all.

Mr. LUKEN. Mr. Tipton, we are talking to you as an acknowledged expert, and the head of the agency which is the fire protection agency of the country. You are evidently evincing a certain vagueness about these model codes. Does that suggest that the whole question of codes in this country is in chaos and a shambles?

Mr. TIPTON. No, sir, I don't think it suggests that. It suggests, first of all, that I am not an expert in those codes.

Mr. LUKEN. Where would we go to find one if you are not the expert? Who is the expert?

Mr. TIPTON. There are people here who will give testimony who are a part of the code organizations that developed these codes and are certainly experts.

Mr. LUKEN. They are experts on their individual codes.

Mr. TIPTON. And because they have now developed organizations who work together among the model codes they have some expertise on each other's codes too.

Mr. LUKEN. From what do these organizations spring?

Mr. TIPTON. From the code groups.

Mr. LUKEN. Where do the code groups spring from, interest groups?

Mr. TIPTON. They spring from interest groups.

Mr. LUKEN. From insurance companies?

Mr. TIPTON. Yes; from insurance companies, from manufacturers, from many people.

Mr. LUKEN. Any public interest groups?

Mr. TIPTON. In certain cases there are very representative public interest groups.

Mr. LUKEN. Like which one?

Mr. TIPTON. The National Fire Protection Association, for example, has always enjoyed the participation of Government agencies on their committees as well as others.

Mr. LUKEN. Is that whence they sprang, do you know?

Mr. TIPTON. Their history is that as an association—and I do not mean to speak for them—it is originally from the fire insurance industry, but their efforts today are quite wide.

Mr. LUKEN. But they sprang from the fire insurance industry?

Mr. TIPTON. Originally, as did some of our whole building code thinking.

Mr. LUKEN. So they tend to really exist at the sufferance of the fire insurance industry?

Mr. TIPTON. Well, I do not think that is true today. I think it was true at one time, but I do not think it is true today.

Mr. LUKEN. I think Mr. Jablonsky indicated that about 70 percent of the professionals in the field, in the fire field, are in the industry today.

Mr. TIPTON. If he is talking about fire protection engineers as a specific discipline, he may be right, but I would say there are many professionals in the fire protection industry that are not in the insurance industry, and there are some —

Mr. LUKEN. It is my impression in my State of Ohio, at least up until very recently, the only agency that basically enforced electrical codes was the one supported by the insurance industry; is that not right? What was it called?

Mr. LUCHT. There is a government agency in Ohio, the Department of Industrial Relations, which enforces the electrical code.

Mr. LUKEN. Department of Industrial Relations?

Mr. LUCHT. Yes.

Mr. LUKEN. What has that to do with dwellings?

Mr. LUCHT. That does not cover dwellings, you are correct.

Mr. LUKEN. Other than that—dwellings are a significant area, are they not?

Mr. LUCHT. That is right.

Mr. LUKEN. Would you agree with that?

Mr. LUCHT. Absolutely.

Mr. LUKEN. I suppose that at the Federal level we have OSHA, which has something to do with fire codes, too, but that is not what we are talking about. But was there not, or is there not, an organization which has a quasi-official function in the State of Ohio, which is owned by the insurance companies and sets forth the code—the electrical code?

Mr. LUCHT. I am just not sure which one you are referring to. I can think of several organizations that might fit into the category you are describing, but there is no government jurisdiction controlling residences, that is right.

Mr. LUKEN. I will not pursue it. There is no governmental unit?

Mr. LUCHT. That is correct.

Mr. LUKEN. How about fire alarms, can we touch on that for a moment?

Mr. TIPTON. Sure.

Mr. LUKEN. Is there anything on fire alarms in the model codes?

Mr. TIPTON. I would like Dave to talk to that.

Mr. LUCHT. Yes.

Mr. LUKEN. Is there?

Mr. LUCHT. Yes.

Mr. LUKEN. What is it?

Mr. LUCHT. Again, generally most of the model codes require manually activated fire alarm systems in most large public buildings. I think one notable exception in some cases at least is in places of public assembly. I did a little bit of personal research on that, and at least some of the model codes do not require manually activated fire alarm systems in places of public assembly.

I believe this is an issue that has been debated by many interest groups in many committees in many model code groups. I think that the fear is that the alarm system might cause panic, might cause the wrong thing to happen.

Mr. LUKEN. It might tell people to get the hell out of there.

Mr. LUCHT. What the answer to that issue is I do not know, but it is an issue in the model code groups, I do know.

Mr. LUKEN. It might cause panic; therefore, we do not have any alarm system because it might cause a sense of emergency.

Mr. LUCHT. I think that is the issue that causes alarm systems not to be in some of the model codes in places of public assembly. I am not saying whether it is right or wrong.

Mr. LUKEN. Public assembly? All right.

Mr. LUCHT. That is right.

Mr. LUKEN. I was talking to my district office, which is in the Federal building in Cincinnati, last week, and it turned out that they had evacuated the building, practically speaking, and some of the offices such as our office were unaware of it because the alarm system was not working, if there was one. We still have not found yet whether there is one. That is in a Federal building.

There was some kind of a small conflagration in the basement which did not turn out to be anything, but obviously, there was not much of an alarm system working in that Federal building. I suppose that is an indication that we do not have alarm systems generally, isn't it?

Mr. LUCHT. As I said, most of the model codes require alarm systems in most major public buildings. But the maintenance issue that I think you might be alluding to is another significant issue. I have been a fire inspector myself, and I have found many mechanical fire protection systems that do not work, I have found lighting systems that do not work, I have found fire doors that do not work; and if those systems do not work, the people are not protected.

I think that is another part of the system that Mr. Tipton was referring to.

Mr. LUKEN. OK. I just have a couple of more questions.

There are fireworks laws in certain States, are there not?

Mr. TIPTON. Yes.

Mr. LUKEN. Do you have an opinion on that? Should we have a fireworks law, prohibiting fireworks?

Mr. TIPTON. I believe that——

Mr. LUKEN. For general usage, of course.

Mr. TIPTON. I believe that the States should all adopt the National Fire Protection Association's fireworks law which outlaws fireworks outside of public demonstrations.

Mr. LUKEN. But they do not?

Mr. TIPTON. That is correct.

Mr. LUKEN. The people in my State can go to wherever it is, one of the Carolinas, wherever, and obtain their fireworks and bring them into the State. They are bootlegged when they get to Ohio, but they can still obtain them. So not only the people of that State are not protected, but the people of all States are somewhat exposed; is that not a reason maybe for a Federal fire code?

Mr. TIPTON. I believe enforcement is still the problem. Even if the law exists in Ohio and it exists in Kentucky and exists in all the States around Ohio, you still have to have enforcement. Firecrackers are going to be available, they are available in Mexico, for example, in my State of California it is a special problem, with the hot, dry chaparral that exists there.

You have a problem that you have an enforcement issue. People want to do something—it is like marihuana, if they want to do something they are going to get to it.

Mr. LUKEN. But it is easier to grow a field of marihuana than to just manufacture 2-inchers, right?

Mr. TIPTON. Yes.

Mr. LUKEN. If they have to go to Mexico to get the 2-inchers, we are not going to have too many, but if they are going to go just across the State line, then we are going to have a few more.

I understand only 28 States have the model fireworks law, right?

Mr. TIPTON. I am not able to say, but I am sure NFPA, when they testify later, can say, Yes, many of them do not, that is correct.

Mr. LUKEN. Do you think with regard to the life safety code, do you think there should be any variation for any particular reason between the codes of the various States on life safety? Can you think of any local situations that would make it any different in one State as opposed to another.

Mr. TIPTON. Well, the life safety code, if you are talking about the NFPA life safety code——

Mr. LUKEN. Yes, that is what I am talking about; it is in effect in 33 States. I am wondering whether the other 17 have a difference in terrain.

Mr. TIPTON. I would say I would see no reason why it should not be adopted uniformly throughout the United States.

Mr. LUKEN. Would you agree with that? I mean a high rise in Chicago is the same as it is in San Diego or in Butte, Mont., is it not?

Mr. LUCHT. From that standpoint that is correct; yes, fires are fires.

Mr. LUKEN. Well, if we are talking about brush fires, there might be a difference between New York and Wyoming, but we are talking a similarity between high rises in whatever State they are in, and I am wondering about the issue of whether we should leave it up to the States because there might be some desirability in adopting different kinds of codes. But I take it from your answer you do not see any.

Mr. TIPTON. My personal view is that that is a good life safety code and should be uniformly adopted. What we have done is allow the States to do something different and they could even adopt a more stringent code if they wished.

Mr. LUKEN. I will let that go.

Do counsel have any questions?

Mr. DARROW. I have just a few questions having to do with your resources, since you have made very clear from your testimony that your agency embraces a considerable spectrum of responsibility for the investigation of fires, as well as for the collection, dissemination of information.

What is your current budget right now?

Mr. TIPTON. Our current budget is \$12.1 million a year, which includes the Fire Research Center at NBS.

Mr. DARROW. Is that for fiscal 1977?

Mr. TIPTON. Yes.

Mr. DARROW. Does that include fiscal 1978?

Mr. TIPTON. No, that is \$13.8 million. That is our operating budget.

Mr. DARROW. Without wishing to put you in a particularly uncomfortable position, do you consider those resources adequate for the discharge of your current responsibilities, exclusive of the conduct of any study of a Federal fire code?

Mr. TIPTON. I could best answer that question by saying that the National Commission, of which I was executive director, recommended that the program in 1973 be funded at \$128 million a year.

Mr. DARROW. All right.

Mr. TIPTON. So we are at about 10 percent.

Mr. DARROW. The obvious question is, how much do you think the study would cost? We have been talking about a study that you think is contemplated by your enabling legislation.

Mr. TIPTON. We have estimated, and of course different staff members have different opinions, but we have estimated about half a million dollars to have a participative study.

Mr. DARROW. How many people would that include?

Mr. TIPTON. We would require about five people full time working with the Fire Research Center.

Mr. LUKEN. Would you yield for a moment?

Mr. DARROW. Sure.

Mr. LUKEN. Let's put that in perspective. Half a million dollars for the study. What is the cost? I think we have touched upon it. What is the estimated cost of fires, in property damage, and the cost of prevention, enforcement in this country today on an annual basis?

Mr. TIPTON. Somewhere around \$12 or \$13 billion a year is the loss figure in all categories.

Mr. LUKEN. That is the total of the property damage and the costs of firefighting and prevention?

Mr. TIPTON. Economic losses as well.

Mr. DARROW. Do you think that your current resources would be adequate to fund a one-half million-dollar study?

Mr. TIPTON. We would—

Mr. DARROW. Without significantly impairing your other functions?

Mr. TIPTON. No; they are not adequate.

Mr. DARROW. They are not adequate.

I do not have any further questions.

Mr. McLAUGHLIN. None, thank you.

Mr. LUKEN. I just wonder if you have an opinion on this, Mr. Tipton. I am quoting from a report with which you are familiar.

The building had no internal fire division walls, no smoke or fire detectors, no fire alarm system, and no automatic sprinkler system. This applies to a building which was a restaurant and a nightclub.

Can you say from that description whether such a building would conform to any of the model building codes?

Mr. TIPTON. Buildings like that, to the best of my knowledge, would not.

Mr. LUKEN. They would not conform to any of them?

Mr. TIPTON. To the best of my knowledge they would not.

Mr. LUKEN. Any of the modern ones?

Mr. TIPTON. As that building existed?

Mr. LUKEN. As described.

Mr. TIPTON. Yes.

Mr. LUKEN. We are asking a hypothetical question, of course.

Mr. TIPTON. Yes.

Mr. LUKEN. Counsel?

Ms. NORD. In your prepared testimony, Mr. Tipton, you state that the United States has the worst per capita fire loss record of any major industrialized nation in the world. Why is that true? Have other countries recognized fire prevention as a national problem and consequently enacted national building codes, or some sort of national fire safety policies?

Mr. TIPTON. It is a long answer. I will try to make it as brief as possible.

We have a cultural history in Europe under the Napoleonic Code where you were liable for burning your neighbor's property. That does not exist in this country. It was not very many years ago in Asia that if you had—

Mr. LUKEN. You mean we had a no-fault fire law, is that what it is?

Mr. TIPTON. We have a situation here where you are not liable if your neglect causes a fire in your house and it spreads to your neighbor's house.

Mr. LUKEN. I would like to come back to that. Go ahead.

Mr. TIPTON. So that tradition in Europe caused a part of that situation.

In Asia, it was not very many years ago that people were actually executed for allowing fire to occur and to spread to other properties. That is one cultural background in history.

On the other side of it, we are a very rich and affluent country. We have a great deal of both unsafe and combustible furnishings in the places where we live and where we work, and we are a very industrialized country. We do not always practice safety.

When you think of all of these things, then you can see that we would have a good justification for having so many fires; not justification, excuse me, a good reason for having so many fires.

Ms. NORD. But other either European or Asian countries, thinking perhaps of Japan, do not have national policies for fire prevention.

Mr. TIPTON. Well, most countries do have national policies, national codes; that is correct. Most countries do have national standards and they are enforced in many cases on a national basis.

Ms. NORD. Thank you.

Mr. LUKEN. I would just have one comment.

You have repeated what you said on television this morning and I think there is a necessary rejoinder to that: If we are subject to more fires because we have a more affluent society, more smokers, more rich tapestry, more combustibles, I think it is tragic that we have not applied some of those riches to the prevention and the fighting of fires.

Mr. TIPTON. I absolutely agree.

Mr. LUKEN. At least balance it out.

Mr. TIPTON. Yes.

Mr. LUKEN. Anything further? Thank you, Mr. Tipton.

Mr. TIPTON. Thank you.

Mr. LUCHT. Thank you.

Mr. LUKEN. I would give warning to all those who are here that I intend to go through without any significant break because we do have a time problem. So we are not going to count on a lunch hour. If there are any witnesses who would be inconvenienced, we will take that into consideration, but it is my hope we can go through without a break. In other words, take your breaks casually.

We have Dr. John Lyons, Director of the Center for Fire Research, National Bureau of Standards, and Dr. Merritt Birky, who will comprise a panel for the next segment of our program.

Dr. Lyons, Dr. Birky, we appreciate having you.

STATEMENT OF JOHN W. LYONS, PH. D., DIRECTOR, CENTER FOR FIRE RESEARCH, NATIONAL BUREAU OF STANDARDS, DEPARTMENT OF COMMERCE, ACCOMPANIED BY MERRITT M. BIRKY, PH. D., CHIEF, PROGRAM FOR TOXICOLOGY OF COMBUSTION PRODUCTS

Dr. LYONS. Thank you, Mr. Chairman.

Mr. LUKEN. We will put Dr. Lyons' statement in the record, there being no objection. You do not have one?

Dr. BIRKY. No.

Mr. LUKEN. That is fine. You may proceed in any fashion you wish, either or both of you. We will call upon Dr. Lyons first.

Dr. LYONS. Thank you, Mr. Chairman. With your permission, I will read at least portions of my statement.

Mr. LUKEN. Any way you wish. We will be glad to hear from you as you desire.

Dr. LYONS. Good day. I am pleased to have this opportunity to appear before this subcommittee to testify on H.R. 7684, the Fire Prevention Study Act of 1977. This bill would amend the Flammable Fabrics Act to require the Secretary of Commerce to study the necessity and feasibility of establishing Federal standards relating to fire prevention and control. The Administrator, National Fire Prevention and Control Administration (NFPCA), would conduct the study. The report of findings would be transmitted to the Congress by the Secretary within 1 year.

The NFPCA was established by the Federal Fire Prevention and Control Act of 1974. In the same act, the Fire Research Center was established in the National Bureau of Standards. The Center is

authorized to conduct a broad program of research on fire and on the effects of fire on its victims. Results of this research work are to be disseminated broadly; the Secretary of Commerce shall encourage the incorporation of results "in building codes, fire codes, and other relevant codes, test methods, fire service operations and training, and standards. The Secretary is authorized to encourage and assist in the development and adoption of uniform codes, test methods, and standards aimed at reducing fire losses and costs of fire protection." (Sec. 18, Public Law 93-498.) In addition to this language in the section establishing the Fire Research Center, section 12 of the act authorizes the Administrator, NFPCA, to review, evaluate, and suggest improvements in fire prevention codes, and building codes and regulations. H.R. 7684 would build upon these existing authorizations, would require a study of the feasibility of a Federal fire prevention and control code, and would require a report in 1 year.

I shall discuss the Fire Research Center's program ranging from fire investigations to development of proposed changes in standards and codes. In this review I shall highlight how the National Bureau of Standards attempts to work within the system of codes and standards as presently structured.

The program of research at the Fire Research Center is based on our analysis of fire losses and our concept of how to intervene to minimize these losses. In cooperation with the Fire Administration, we investigate major fires which promise to help us in program planning. We also review available data to arrive at a set of fire scenarios which we believe account for the majority of fire losses. The details of this approach are described in our fire research plan titled, "Reducing the Nation's Fire Losses. The Research Plan." With your permission, I shall submit a copy for the record.

Mr. LUKEN. Without objection, it will be admitted into the record. [The information referred to follows:]

EXECUTIVE SUMMARY

Preparation of this research plan was stimulated by the passage of the Federal Fire Prevention and Control Act of 1974. In this Act the Center for Fire Research was established at NBS with a charter in fire research substantially broader than NBS had held in earlier years. This plan analyzes fires in terms of common characteristics and shows how research may be applied to enhance the effectiveness of various intervention mechanisms. These are:

Ignition Control

Control of Fire Spread and Growth

Fire Detection and Suppression

Direct Measures for Escape, Refuge and Protection

There are two cases: a minimum effort beginning at about an average of \$10,000,000 a year and a somewhat more innovative and far reaching case at about \$18,000,000 a year. The smaller, or base case, is outlined in considerable detail for each of the five fiscal years—1978 through 1982. The larger case comprises the base case plus a series of initiatives which are presented individually. This case covers about ten fiscal years.

The cost of the base case is of the order of \$50,000,000 (five-year cumulative basis). The estimated impact is a reduction of losses of about 47% annually by 1995. This reduction will bring the United States level down merely to that of the next worst country, Canada, and leave much room for further improvement. These reductions are estimated on the assumption that NBS recommendations for standards and practices will be adopted by authorities having jurisdiction in about the same fashion as NBS has experienced in the past. The expanded case would increase these reductions further and offers at best the hope that most accidental fires could ultimately be controlled so as to avoid substantial losses.

A summary for one year of the proposed funding by intervention mechanisms is shown below for both scientific and engineering work. The funds include both directly appropriated dollars and projected support from other Federal agencies.

	<i>Fiscal year 1978 (thousands)</i>
Ignition control:	
Science (chemistry, physics, etc.)-----	\$1, 100
Engineering (products, buildings, systems)-----	800
Subtotal-----	<u>1, 900</u>
Spread control:	
Science (chemistry, physics, etc.)-----	1, 100
Engineering (products, buildings, systems)-----	1, 600
Subtotal-----	<u>2, 700</u>
Suppression:	
Science (chemistry, physics, etc.)-----	375
Engineering (products, buildings, systems)-----	1, 125
Subtotal-----	<u>1, 500</u>
Escape, refuge, and protection:	
Science (chemistry, physics, etc.)-----	1, 450
Engineering (products, buildings, systems)-----	850
Subtotal-----	<u>2, 300</u>
Total	<u>8, 400</u>

Dr. LYONS. I shall now discuss some findings from investigations of fires and study of statistics to show how these analyses help to focus our attention on problems.

A lengthy series of special autopsies conducted by the Maryland medical examiner and the applied physics lab of Johns Hopkins University under center sponsorship has clearly shown that about 80 percent of fatalities are caused by carbon monoxide poisoning either alone or in combination with excessive levels of alcohol in the victim's blood or with circulatory disease. Either condition renders the victim more susceptible to the effects of carbon monoxide.

Another 10 percent of victims die from the heat and flame of the fire. About 10 percent of fatalities are unexplained.

There have been many charges to the effect that toxic gases other than carbon monoxide are responsible for deaths and injuries when certain synthetic substances are burned; for example, it is alleged that lethal levels of hydrogen cyanide may form when certain nitrogen-containing polymers are burned. If there are such cases, they will be part of the unexplained group of about 10 percent of the fatalities. This is not to belittle concern over other toxic gases, but merely to place the problem in perspective.

Mr. LUKEN. Could we tarry there for a minute?

Dr. LYONS. Certainly.

Mr. LUKEN. How do you know they are part of the 10 percent? How do we know that we do not have in those statistics, people who have died, from carbon monoxide poisoning or from smoke inhalation—is smoke inhalation part of the 10 percent?

Dr. LYONS. No. Smoke inhalation is not a useful term. We are being more specific. All of these things I think we are about to discuss come under that type.

Mr. LUKEN. That is what the death certificates say of the 42?

Dr. LYONS. That is correct.

Mr. LUKEN. Do you not find that elsewhere smoke inhalation is listed as a cause?

Dr. LYONS. Most places; yes, sir.

Mr. LUKEN. You have not considered it in your statistics?

Dr. LYONS. No.

In the State of Maryland, in the study that I am discussing, we are being more specific than that. That is too broad.

Mr. LUKEN. How do they know without the blood tests?

Dr. LYONS. Elsewhere?

Mr. LUKEN. Anywhere.

Dr. LYONS. In Maryland we have been running blood tests.

Mr. LUKEN. On everybody?

Dr. LYONS. On all that the program can encompass. There is a law in Maryland that enables the autopsies to be made, requires that they be made in such a circumstance.

Mr. LUKEN. So this statistic is one that you feel is unique and reliable?

Dr. LYONS. I think this is very good, very solid; yes, sir.

Mr. LUKEN. Thank you.

Dr. LYONS. We recently applied techniques, developed through center programs, to blood samples from some of the victims of the jail fire in Columbia, Tenn. You may have seen press reports which indicated that urethane polymers were burned and that hydrogen cyanide was possibly the cause of death. Careful analysis of blood samples showed that lethal levels of carbon monoxide were in the victims' blood, but that cyanide levels, though present in some of the blood samples, were below lethal levels.

Mr. LUKEN. That is all of the cases, all of the victims?

Dr. LYONS. No.

Mr. LUKEN. No. All of the victims that were covered—I think it makes more sense to discuss these things as you cover them rather come back to them.

Dr. LYONS. Fine.

Mr. LUKEN. We have the crime laboratory reports and the cyanide went from .03 micrograms per millimeter to 1.3.

Dr. BIRKY. Our results gave—the highest was 1.83 micrograms per millimeter.

Mr. LUKEN. Is that nonlethal?

Dr. BIRKY. That is considered sublethal, to the best of my knowledge.

Mr. LUKEN. Is it dangerous to health?

Dr. BIRKY. Yes, sir, it certainly is. I should point out—

Mr. LUKEN. When I say that, I assume that 0.03 is not particularly dangerous to health.

Dr. BIRKY. Anything roughly 0.05 or below is considered background levels of cyanide in the blood and not significant.

Mr. LUKEN. But 1.83 would be sublethal—how would you characterize it?

Dr. BIRKY. I would consider that as toxic.

Mr. LUKEN. Maybe we want to discuss this in more detail when you finish. Did you intend to go into this in more detail?

Dr. BIRKY. I can now or later, it is up to you.

Mr. LUKEN. Why don't we do it now?

Dr. BIRKY. I was going to point out that the individual who had the highest cyanide level that we measured also had the highest carboxyhemoglobin level, which was almost 80 percent, which is well in the lethal range, no question about it.

Mr. LUKEN. I believe that the lethal range is generally considered 35 to 40 percent.

Dr. BIRKY. I would consider anything above 50 as lethal, yes.

Mr. LUKEN. Definitely lethal?

Dr. BIRKY. Definitely lethal. You could not escape from a fire if you had a 45 or 40 percent carboxyhemoglobin level.

Mr. LUKEN. You found then in those victims with high cyanide also high carbon monoxide?

Dr. BIRKY. That is correct.

Mr. LUKEN. Which means they were exposed to more smoke?

Dr. BIRKY. That means they certainly inhaled more toxic products, that is correct.

Mr. LUKEN. But would it also then lead you to believe that the two could work in conjunction so that the cyanide, a sublethal dose of cyanide would cause death in a lower carboxyhemoglobin content exposure?

In combination, would they work to cause a fatality quicker?

Dr. BIRKY. I would expect the two toxic products, carbon monoxide and hydrogen cyanide, to be additive. That is if you added those, you could get a fatality at a lower than normal CO level.

Mr. LUKEN. Synergistic, is that the word?

Dr. BIRKY. No; I would not add synergistic. That is more than additive.

Mr. LUKEN. That is his word, not mine.

I think you have answered that clearly.

Any other comment on that subject so we can complete it while we are on it?

Dr. BIRKY. No; I think that is all, thank you.

Mr. LUKEN. Thank you.

Dr. LYONS. Clearly the burning items produced both carbon monoxide and hydrogen cyanide, but the carbon monoxide dominated the situation. I think that is what we are saying, dominated the situation. When chlorine-containing polymers such as polyvinylchloride (PVC) are burned, a number of noxious gaseous combustion products are produced; for example, carbon monoxide, carbon dioxide, hydrochloric acid, and benzene. We have seen reports of disabling injuries and even fatalities from fires involving PVC.

The center is attempting to define the exact cause of these effects; at this time all we can say is that combustion products from PVC are more toxic than one would predict from knowledge of the amount of hydrochloric acid produced. Our work on the toxicology of combustion products will produce a test method for evaluating and screening materials.

There is considerable interest in such a test method by industry and by code officials. The method would be suitable for incorporation in the model codes, and it seems likely that it will be adopted in some form, rather quickly.

Careful study of the remains of a fire can tell how materials help or hinder the spread of fire, the success or failure of the building design in containing the fire or in diverting the products of combustion, and the efficacy of automatic detection, alarm, and suppression systems.

By interviewing survivors we can piece together the important events as the fire grew from stage to stage and the reactions of the occupants at each stage. We can sift this information for leads to corrective measures required in design of new structures, retrofit of existing structures, education of owners and staff, and the like. Needs for additional research become clear as the investigation proceeds.

Typically the center's research produces new test methods, proposed new standards, proposed code changes, and new recommended practices. Examples of new test methods are a new means of measuring the ease of ignition of building materials, a method for testing the toxicity of combustion products of burning materials (a preliminary draft of this method is being studied within center), a new means of testing the combustibility of floor coverings, and a technique for measuring the rate at which heat is given off from a burning substance as a function of the intensity of the fire exposure.

Since neither the center nor the NFPCA is authorized to issue standards, once we have a test method in hand we must find a mechanism for putting the method into a standard. We do this either through established consensus standards organizations or through a Federal agency which is required by law to issue mandatory standards in fulfillment of its mission.

The two most active voluntary consensus groups in the fire field are the American Society for Testing and Materials (ASTM) and the National Fire Protection Association (NFPA).

A recent example of a standard proposed by the center being adopted by one of these groups is NFPA's adoption of the NBS smoke density chamber as NFPA Standard 258; another is the current consideration by ASTM of the NBS flooring radiant panel test for evaluating the fire performance of floor covering.

These consensus standards, once published, often are incorporated by reference in the model codes and become mandatory legal requirements when the model codes are adopted by State or local governments.

Some Federal agencies have been required by law to issue standards which preempt the local codes. For example, the Department of Housing and Urban Development was required by law to issue a mandatory standard on mobile homes. The Center for Fire Research conducted research on mobile homes and provided HUD with the technical basis for its new standard.

The Consumer Product Safety Commission has a broad legislative mandate. The control of furnishings, especially home furnishings, has been outside the scope of the local building or fire codes. The homeowner is free to buy the number and type of furnishings he wishes. The mechanism for controlling fire safety must be at the point of sale.

A current example is the cigarette ignition of upholstered furniture. The smoldering fires produced by this scenario we estimate to be responsible for about 15 percent of all fire fatalities in this country.

Research by the Center has produced a test method and the CPSC is now considering how to use the method to effect control of the hazard. In this case the use of CPSC's mandatory authority seems the only feasible way to accomplish the task.

Each of the two methods for developing fire-related codes and standards just described—the voluntary consensus standard method and the preemptive Federal mandatory approach—have their advantages and disadvantages. Any thorough study of the necessity and feasibility of establishing Federal standards relating to fire prevention and control must assess the relative strengths and weaknesses of these and other methods. The proposed legislation would do this.

After this assessment it will be necessary to devise constructive alternatives for correcting the weaknesses that we uncover and reinforcing the strengths that are found.

We have some idea of what to expect. This is because the Center has considered it part of its responsibility to follow the activities of various code groups, to offer technical advice where possible, and to argue for code changes through whatever channels are available.

The Center participates to varying degrees in the deliberations of the four model building code groups; Center staff have been active on the NFPA Safety to Life Committee, and serve as full voting members of that committee. I believe that, even though we have these relationships with these key organizations, we must strive to improve them.

It should be possible to improve the quality of our communications and the speed with which new technology finds its way into our regulatory systems. If we are to achieve our goal of cutting fire losses by half by the end of the century, improvements in utilization of research results are absolutely necessary. Any study of our existing system should produce recommendations for facilitating the implementation of new technology, and I would hope they would be of such reasonableness and practicality that all concerned could join together in supporting their adoption.

In closing, let me discuss where fire safety engineering is heading and the role of standards and code groups in utilizing the technology we see developing.

First, we are for the first time developing a quantitative understanding of fire phenomena. In a few years, given basic information on materials and design, we shall be able to predict, to calculate, the most likely spread and growth patterns of a fire started in a given way. This means that decisions on whether to allow use of a particular material or design can be based on quantitative calculations rather than on intuition, or feel.

The local officials having jurisdiction and architects and engineers will be on much sounder ground in selecting from a list of alternative design options. The building codes will have to be adjusted to accommodate this new analytical tool and will need to become almost entirely performance oriented rather than prescriptive. Such changes begin with the model code groups.

Second, fire safety design is changing from an approach which focused on structural aspects and compartmentation of buildings to consideration of the building, its furnishings, the intended use of the building, and the most likely behavior of the occupants during a fire emergency together as a system.

For some structures such considerations produce emphasis on exits; for others—for example, hospitals—evacuation of patients may be impractical and protection of occupants in place becomes all important. Integration of alarm and communication systems with planned evacuation routes and refuge areas, automatic systems to remove combustion products away from people, and with selected use of automatic sprinklers at key locations may make more sense than controlling the furnishings in high rise apartment buildings.

The systematic analysis of all design options can produce a series of acceptable designs from which the architect and the building official can make selections. This approach is preferable to a rigid prescription of a particular combination of materials, design, and hardware. To enable officials and designers to make the choices, the level of fire safety required and achieved must be quantified.

The center has made considerable progress in developing a numerical rating scale for fire safety levels and is now field testing a technique for evaluation of hospitals and nursing homes. The results of systems analysis of building design do not fit easily into the present code structure. There must be a continuing, indeed an increasing, dialog between the research community and code officials if the fruits of new technology are to be used to benefit the public.

Thank you, Mr. Chairman. I will be happy to answer any questions you may have.

Mr. LUKEN. Doctor, Mr. Tipton suggested that whether we need H.R. 7684 or not is a question, but he approved the objective of the bill in accomplishing a thorough study. Do you have any comment on that?

Dr. LYONS. Yes, sir, I do.

My perception of the processes in which I am engaged is that I am directing my efforts at reducing fire losses, yet what I produce are reports and other research products. What is necessary for the implementation of that information is a process by which the research report is adopted by the intermediary organizations, put in place and enforced.

I am concerned that I have not found what I consider to be the best way to get my research results in place. That is as much my fault as anybody's. But I think that a study of ways to improve the way the research is used is necessary and should be done.

Mr. LUKEN. Thank you, Dr. Lyons. I think you have clearly stated your position on that point, and your statement has been rather complete.

Do you have any particular comment on Mr. Tipton's testimony? Are there any areas of variation in your testimony and his?

I am not asking you to adopt his testimony.

Dr. LYONS. No.

Mr. LUKEN. I would rather not go through the same extent of questioning. If you have any comments I ask you to make them.

Dr. LYONS. I support what Mr. Tipton has said. I feel there is undoubtedly a way to build upon what we have now and do those things better. It is certainly clear that the fire loss situation at present is unacceptable. There are lots of reasons for that. I feel we need to look at all possible ways to improve that situation and your proposed bill is certainly one of them.

Mr. LUKEN. Very well, thank you.

Any questions for Dr. Lyons?

We do have a panel.

Dr. Birky, we would be glad to hear from you at this time.

Dr. BIRKY. I think Dr. Lyons pretty well stated my thinking on the toxicity part. I could try to perhaps clarify a little bit the materials that we are studying from the Tennessee jail, if you are interested in that information.

Mr. LUKEN. Very much.

Dr. BIRKY. We identified two foams—

Mr. LUKEN. Maybe you should state your position and qualifications briefly for the record, please.

STATEMENT OF MERRITT M. BIRKY, PH. D.

Dr. BIRKY. My name is Merritt M. Birky. I am chief of the program for toxicology in the Center for Fire Research under Dr. Lyons' direction.

The materials that were sent to us from the Tennessee officials consisted of the two foams, a latex rubber or a styrene butadiene rubber material or foam, and that was covered with a nylon coated with neoprene, and the second set of materials which was used in the repair of that cell was a polyurethane flexible foam based on TDI. That was covered with a nylon fabric covered with polyvinylchloride.

Those are the four major materials involved in that fire.

One can, I think, state fairly well what the toxic contributions of those various materials are, at least to the best of our knowledge at this time.

The cyanide you reported in the blood measurements, has two potential sources, one being the repair of the polyurethane and the nylon fabric that burned. Both will produce some hydrogen cyanide.

The PVC will produce some hydrogen chloride.

All the materials will produce substantial amounts of carbon monoxide, depending on the burning conditions.

Mr. LUKEN. Do you believe that the polyurethane is a common problem? Or put it another way: Of those ingredients or materials that you found in the padding for the padded cell in the Tennessee fire, do you believe any of them constitute a common problem with regard to the toxic qualities when burned?

Dr. BIRKY. I think, as evidenced by the fatalities, certainly all of them presented a problem in terms of fire hazard.

Mr. LUKEN. Well, do you find that these materials are used generally?

Dr. BIRKY. The foam material such as polyurethanes are used extensively in upholstered furniture, et cetera.

Mr. LUKEN. Widely?

Dr. BIRKY. Yes, widely.

Mr. LUKEN. And in mattresses?

Dr. BIRKY. Yes; and in mattresses.

Mr. LUKEN. Do you believe that there was any particular combination of these materials that caused the problem here or would you single out one or the other?

Dr. BIRKY. Of those two foam materials, I would not single out any one or the other as being the worst.

Mr. LUKE. Do you know of any way that we could avoid such toxicity in mattresses or in upholstery?

Dr. BIRKY. Well—

Mr. LUKE. In other words, are there any alternative materials?

Dr. BIRKY. Do you want me to answer that?

I think there are alternatives and I would like to have Dr. Lyons answer that.

Dr. LYONS. If I may, Mr. Chairman, two comments:

One is, I think in the case of that jail fire and perhaps in many such instances, it is not only that the products can and do produce toxic products, but the speed with which these are produced.

Our perception of the fire in the jail in Columbia, Tennessee, is that it was fundamentally a problem of rapid development; it went from a safe situation to a very hazardous situation in probably a matter of seconds.

In the growth, it turns out it was the toxic gases that killed the victims. In other cases there may be heat that could be produced quickly. I think that is a characteristic of the behavior of many low-density foam products.

We are talking here mostly about urethane, I make no brief for urethane one way or the other, but there is a family of materials, most of them synthetic polymers, which have the same rapid fire growth characteristics, and it is because they are low density, with a large surface area exposed.

Mr. LUKE. The question is alternatives.

Dr. LYONS. The question is alternatives.

Mr. LUKE. In other words, if we outlaw them, are we going to outlaw upholstery?

Dr. LYONS. I think what this forces you to do if you follow that line of reasoning is that you will eventually decide there must be other ways in addition to controlling materials. There are certain to be some situations where we will have to have a quick alarm so we can get out. The design of the structure is another thing.

Mr. LUKE. Respectfully, Dr. Lyons, I don't think you are answering the question. Do you know of any substitute materials which would not have the same or similar toxic qualities when burned?

Dr. LYONS. Yes, sir, I do.

Mr. LUKE. Such as?

Dr. LYONS. Congressman Dodd, I think, included in the record earlier today a summary statement of a study we have done on mattresses for use in prisons and other restricted institutions. Let me just say we looked at them in a series of tests. These were full scale tests in a room simulating in that case I think a hospital room—it could just as well have been a jail cell—and we ignited these mattresses with a wastebasket full of paper trash and we measured the rate of temperature buildup, the rate of toxic gas buildup and the rate of smoke buildup. We also noted when the room was fully involved with fire, known as the flashover point.

We looked at mattresses with cotton batting, those with neoprene foam, those with urethane cores and latex rubber cores. These were covered in different ways. The ticking was varied. The fire involved a

heap of bedding on top so it was a realistic simulation of what one might expect. We evaluated these various mattresses in terms of these parameters which relate to hazards to life and we found that the mattress with the cotton batting did not develop to flashover, did not develop what we considered to be hazardous levels of smoke or hazardous levels of toxic gas, so that mattress which was a conventionally treated mattress—that is, treated with a fire retardant—I think meets your requirement.

Mr. LUKEN. Would it have the same qualities with regard to fire retarding, as the others? You say it was treated?

Dr. LYONS. It was treated so that as far as I know, Mr. Congressman—I would have to go back and double check—it would pass any existing test such as the cigarette ignition test. The other mattresses didn't pass all the criteria. We can go from best to worst.

Mr. LUKEN. So it is modern design that causes the problem?

Dr. LYONS. That is correct.

Mr. LUKEN. If we went back to old-fashioned cotton, it might be safer?

Dr. LYONS. In this sense, that is certainly correct.

Mr. McLAUGHLIN. Following up on the Chairman's questions regarding your open flame tests on mattresses, do your test results cast doubt upon the validity of the cigarette ignition standard presently in effect?

Dr. LYONS. The cigarette ignition test on mattresses and the proposed ones for upholstered furniture which are almost identical, is a test method addressing the largest single category of losses from that item. If you look at the statistics, you find cigarette ignition leading to a smoldering fire in the night killing by carbon monoxide, usually without any heat sometimes except right in the mattress. That seems to be a major cause of fire by all available statistical evaluations.

The test was imposed to be sure that mattresses could not reach the marketplace that would sustain smoldering if a cigarette was dropped on them. The test was not designed to treat the other type of problem, which is the flame-ignition such as from the wastebasket. Imposing that kind of test needs to be rejustified based on the usual analysis of what is in the statistics, what are the costs and so forth. We are working on that problem, but it is a separate problem. I would never recommend withdrawing the cigarette ignition requirement because an item can pass flaming ignitions and still smolder and vice versa. They have to be addressed separately.

Mr. McLAUGHLIN. Earlier you acknowledged that the Center for Fire Research may not issue its own standards, but must rely largely on their adoption by one of the model code organizations. With what frequency and what reliability are Center reports and recommendations adopted by the model code organizations?

Dr. LYONS. Typically they go in a two-step way. They first are adopted by consensus standards groups. That is, the model code group generally in deliberations will say, "We ought to have a test for flaming surfaces and we will incorporate by reference the consensus standards for that."

I submit the right question is, with what frequency are our work products adopted by the standards group? The answer is "Very slowly."

Mr. DARROW. You said that the recommendations are adopted slowly by the model code organizations. Why is that?

Dr. LYONS. I think they are pluralistic groups and every one has his say and there are tradeoffs that have to be made to advance this proposal through the organization. I am not sure whether you call it due process or not, but it is that process of deliberation and debate which is necessarily slower than it would be in another technique.

That process is also subject to abuse. That is, people can directly delay it.

Mr. DARROW. Have there ever been examples that you can recall where recommendations that are meritorious have not been adopted by one of the model code organizations and incorporated into one of their model standards?

Dr. LYONS. I guess the answer to that is "No." If we had made a recommendation directly to a model code group—we generally don't do that; we generally go to the consensus standards group. I take it back. I am reminded that very recently one of our recommendations which was indeed the radiant panel flooring test, which I referred to in my testimony and which we think is the best way to evaluate flooring in institutions, for example, was voted down by one of the model code groups in June.

Mr. LUKEN. We have a report from the NFPCA with regard to recent fires in a restaurant and nightclub where there were approximately 4,500 people in a one-floor building. I can't give you the density. They found the building had no internal fire division walls, no smoke or fire detectors, no fire alarm system, and no automatic sprinkler system; is that sufficient information upon which to express an opinion as to whether such a building would qualify under any of the model codes?

Dr. LYONS. With this information in that report on total area, I think it is sufficient; the answer is, it would not.

Mr. LUKEN. It would not be up to the code?

Dr. LYONS. Yes.

Mr. LUKEN. I have nothing further.

We will take a short break now. We will take a 15-minute break for this vote. We will resume at 1:25.

[Brief recess.]

Mr. LUKEN. We will resume this session of the Consumer Protection and Finance Committee with the appearance of Mr. Martin Grimes.

STATEMENTS OF MARTIN E. GRIMES, ASSISTANT VICE PRESIDENT FOR GOVERNMENT AFFAIRS, NATIONAL FIRE PROTECTION ASSOCIATION; JOHN A. SHARRY, ASSISTANT DIRECTOR OF ENGINEERING; RICHARD E. STEVENS, ASSISTANT VICE PRESIDENT; AND JACK C. SANDERS, MEMBER OF STANDARDS COUNCIL

Mr. GRIMES. I have with me today Richard Stevens, who is the assistant vice president for standards for the National Fire Protection Association; Mr. Jack Sanders, who is the Oklahoma State fire marshal, who also serves on the Standards Council of NFPA, and Mr. John Sharry, who is the assistant director of engineering, and also the life safety code specialist of NFPA.

Mr. LUKEN. We have a written submission with attachments which will, without objection, be admitted into the record, and you may proceed in any manner you see fit.

Mr. GRIMES. I thought rather than read it word for word I would go through it ad lib and bring out some of the salient points.

I think in view of the discussion this morning—

Mr. LUKEN. You may feel free to comment on the discussion we have already had.

Mr. GRIMES. In view of the discussion about what are the model code groups, we ought to explain what the National Fire Protection Association really is. It is a nonprofit technical and educational membership organization founded in 1896. We have a membership of over 32,000 people drawn from the many disciplines involved and concerned about fire protection.

We are not a trade or industry association and no one group or interest is dominant in the association. The only common denominator in the membership is a concern about fire safety. Our members include fire service personnel, fire marshals, electrical inspectors, city managers, architects, engineers, educators, health care facility operators, and similar groups from commerce, from industry, from insurance, and Federal Government.

I will clarify that we are not an insurance organization. The origins of NFPA may well have been in the insurance industry in 1896 when there was a common need for some standardization of sprinkler systems and a need for standards to eliminate the different threadings, the different pipes, and so on.

The insurance companies were vitally concerned at the time and brought together a group of people and that is what started NFPA, but we have long since lost any vestige of being a part of the insurance industry.

Mr. LUKEN. Would you say that is a legitimate question that we should address though Mr. Jablonsky will follow you today. He is going to tell us that 70 percent of all safety professionals in this country work for insurance companies.

Mr. GRIMES. I am sure Mr. Jablonsky could clarify that. There are safety engineers and fire protection engineers. They are not exclusively the only people involved in fire protection. The fire marshal, the fire service, and many others, architects and engineers working in fire safety generally still become part of the, as I mentioned, many disciplines involved, and NFPA is made up of all those disciplines. We have the fire marshals and the electrical inspectors and other people in the association.

These safety people would be part of NFPA. I can give you the exact balance of insurance interests in NFPA. I have it here in this booklet.

They make up 11 percent of our 32,000 membership; insurance people. That is a fairly small percentage, I would think.

Mr. LUKEN. Are you suggesting that the insurance companies are not a dominant force in fire protection and fire enforcement?

Mr. GRIMES. No, sir, I am suggesting they are a dominant force and they have a very great interest and need to be involved in fire protection. What I am saying is they are not a dominant or controlling factor in our particular association. There are a lot of other interests involved in it.

Mr. LUKEN. In the field they do loom very large.

Mr. GRIMES. Yes; there is a considerable involvement and interest by the insurance industry naturally because fire insurance is a major part of the risk they cover and it is very important to them.

I do not think that they dominate fire protection and particularly they don't dominate the enforcement aspects that perhaps is the basis of the discussion that evolved here this morning. That is a personal opinion.

I think Mr. Jablonsky may be better qualified to speak to that.

It has been said in the past that the insurance rating systems have somewhat controlled the fire protection service, such as the fire departments. This still prevails to some extent. The insurance industry sets the rates for an individual community based on an assessment of the fire protection afforded to that community and naturally, in setting the rates for a city or a town at a certain level on the basis of the protection that that city or town is providing, then naturally one could assume that they do dictate somewhat the safety provisions provided in that city or town.

Mr. LUKEN. They have had a decided influence on the codes, like the electrical codes, because they decide in many cases what is in the code.

Mr. GRIMES. That is correct, for their special risks they might do that but also there are city electrical inspectors and State electrical inspectors and other interests which also do their part in working on the codes they follow.

Mr. LUKEN. Sometimes they are Johnny-come-latelys in the field.

Mr. GRIMES. Sometimes they are but I have been in fire protection for 34 years in the enforcement aspect of it and I have never been dictated to by the insurance industry.

Mr. LUKEN. You may proceed then.

Mr. GRIMES. One of the principal functions of NFPA is the development of more than 200 consensus codes and standards related to fire protection. They range from the life safety code through the national electrical code, the national fuel gas codes and flammable liquids standards, sprinkler and similar equipment standards, to those used for fire apparatus, firefighter safety, and professional qualifications.

Over 2,000 persons drawn from the many interest groups affected serve voluntarily on 150 balanced committees formulating the standards; after an extensive legislative process by the association, the resulting standards are widely used both in State, local and Federal regulatory functions and also for voluntary self-protection by industry and Federal Government.

The standards and codes are available singly or collectively in the 16 volume national fire codes.

Many of the NFPA codes and standards are written in regulatory terms and are capable of direct use as regulations. Before they are adopted for regulation purposes by Federal, State or local government, there must be enabling legislation or rulemaking action to adopt them. They are usually adopted by reference or transcription; in some cases they are used as prima facie evidence of compliance with laws and ordinances. Many industries and the insurance community use NFPA standards for their own self-protection and similar purposes. The Federal Government uses NFPA standards for fire protection of

almost all of its properties and facilities. It should be understood that, while some users adopt each and every one of the many NFPA standards, many use only those they consider appropriate to their needs.

In effect, NFPA develops standards which are then available for selective use for regulatory purposes by governmental agencies at all levels, for private self-protection, and for incorporation in model codes of a more general application. In that case the standard for installing sprinklers may be used by one of the model building codes as a requirement for the premises where sprinklers are prescribed in their codes. In other words, they might say there will be premises which must conform to the sprinkler standards. They elect to choose that NFPA standard.

It will be realized that, in producing standards that are subject to such selectivity on the part of the user, and which are used as regulations or for self-protection, it is essential to ensure validity and credibility. The standards-making system must be open, procedurally fair to all, must include representation on the widest basis, must provide for public review and comment, and must provide appeal mechanisms at various stages. The NFPA system incorporates all these safeguards.

Our system is detailed in appendix A. Mr. Stevens will explain it in detail and answer any questions you may have on the NFPA standards system.

It is highly significant that the widespread use of NFPA standards, at all levels of government and by industry, commerce, and other private groups has continued for many years and has increased considerably in recent years. Such usage reflects the high level of confidence and credibility both in the manner in which our standards are developed, and the effectiveness of the standards in providing protection.

Mr. Sanders will testify on the way State and local governments adopt and use the standards and the advantages of having nationally developed consensus standards available for their use.

NFPA employs the consensus method in standards development. This means that general agreement of a substantial majority of all concerned and affected interests is behind each and every standard delivered to the public. The public interest is further assured through the participation of Federal, State and local officials.

There is wide public notice given of all steps in the development of an NFPA standard and ample opportunity for review and comment. In addition, because NFPA standards are used extensively for fire protection of Federal properties, as well as for regulation by Federal agencies, notice of NFPA standards-making action appear in the Federal Register.

NFPA standards are dynamic. That is, they are continuously reviewed and revised as technology changes and as new evidence of a need for change appears.

Mr. LUKEN. You are a private organization, of course?

Mr. GRIMES. Yes, sir.

Mr. LUKEN. What other private organizations go into the Federal Register?

Mr. GRIMES. I couldn't tell you, sir. I know of none. Our standards are being extensively used by GSA and it is GSA that sponsors their appearance in the Federal Register.

Mr. LUKEN. Such as, for example?

Mr. GRIMES. They give announcements of when our standards are coming up for action. In other words, if a standard is to be revised—

Mr. LUKEN. Can you give us some examples of particular standards that you have published recently?

Mr. GRIMES. Let's take the—take the life safety code. It is very pertinent to this hearing. If this standard is due to be acted upon in a particular year—and our cycle, which Mr. Stevens will explain—over a period of almost 2 years—the notice that action is to be taken will appear in the Federal Register and the availability of the standard for review and comment will be—

Mr. LUKEN. Was that published in the Federal Register?

Mr. GRIMES. I am sure this was, sir, in 1976.

Mr. LUKEN. The life safety code?

Mr. GRIMES. Notice of the life safety code being acted upon. Not the actual code itself. Obviously we don't go through the rulemaking process in its entirety. All it is is notice that some action is to be taken on this standard which would be put in the Federal Register and then where copies of the proposed action can be obtained, and they are kept at the Federal Register and are available at our offices and elsewhere. Mr. Stevens can clarify that in more detail in a moment.

Mr. LUKEN. We will wait for that.

Mr. GRIMES. As I say, the standards are dynamic and every standard must be revised or readopted within 5 years, and most of the standards get acted upon within 3 years. They are not on the books for a long time without some action.

Two years ago NFPA extended its service to users of its codes and standards by instituting a training program on the life safety code which has proved so valuable to inspection and enforcing officials that it has been established on a permanent basis and is now being expanded to cover other NFPA codes and standards.

The mere existence of codes and standards does not insure safety. They must be adopted, enforced, and there must be a willingness to comply with the standards. These are the basic components of a safety system. The record of NFPA standards and indeed most safety standards and codes has been extremely good, provided all the components of the safety system have been in place. It is, however, a complex system that cannot be judged on any one part out of context with the whole.

Good codes are useless unless adopted; adoption is useless unless enforced; enforcement can fail if public apathy or resentment is such that compliance occurs only when enforcers are present, or if officials are subject to political or commercial pressures to be lenient.

Similarly, no code or standard can be complete enough to provide total immunity from danger unless human behavior is complete enough to insure that no act or omission will occur to negate provided safety measures. Human weakness is uncontrollable by regulation alone. Unfortunately, human error is, in various ways, the prime contributor to fire loss. Such error can be on the part of the public,

the public official, the manufacturer, the builder, the designer, the researcher, the codewriters, and even the elected body.

We are convinced, however, that the codes and standards component of the safety system is not the primary weakness that contributes to the multiple life losses that occasionally occur and the record will confirm this conviction.

Mr. SHARRY is available to deal specifically with the Life Safety Code, NFPA No. 101.

H.R. 7684: We would be remiss if we did not indicate to the subcommittee our initial reactions to H.R. 7684. We do so now in a summarized form. Before the record closes, however, we expect to submit a more detailed statement and analysis reflecting the opinions of our diversified membership; all of whom are deeply concerned about the toll of life that fire takes in this country not just occasionally, but every day of every week.

Mr. LUKEN. The record will be held open for your submission of a more detailed analysis.

Mr. GRIMES. Over 20 persons die in fires every day, 150 every week. This is why our members have been working for years to provide better fire protection for their fellow human beings. Most of the effort to provide public fire protection in the past has been made at local and State government levels. Despite some failures and occasional disasters, life losses have remained constant for several years and escalation of life loss has not occurred although there has been a major increase in the number of fires. Federal involvement, other than in protecting its own properties and personnel, is of comparative recent origin.

The fact remains, however, that those of us who have been involved directly with fire protection over decades know only too well that in obtaining public support for public fire protection, a major life loss in one incident is the catalyst which often changes the indifference into concern. Unfortunately, the concern does not last. By that I mean when you have a major disaster people do get concerned, but our experience is that although the concerns sometimes results in some immediate remedial action it doesn't often last and it dies. However important it is to protect the public, it sometimes diminishes.

That being the case, we cannot argue against any steps taken to reduce fire life losses, including further studies. We do, however, suggest that ways to avoid such disasters as Columbia, Tenn., and Southgate, Ky., are already available and that the writing of new fire codes by Federal Government and direct Federal enforcement is not the answer.

That does not mean that Federal involvement in other forms is not necessary. Indeed, when it comes to regulating dangerous products which are used in interstate commerce and when considerable research and development in the field of fire protection is needed, the Federal Government has vital roles to play. These roles have already been accepted and must be continued and accelerated with vigor; and, in the case of research, the results should be supplied to the codes and standards groups on a timely basis.

Mr. LUKEN. How about the use of those dangerous products in the furnishings? Let's say a restaurant caters to interstate trade. Do we have an interest in that?

Mr. GRIMES. That is what I said, sir. You do indeed.

Mr. LUKEN. If they are in furnishings attached to the real estate, then we don't control them.

Mr. GRIMES. I was saying there is a need for such control in that direction. I think it is just as important to have flammability standards for products which are sold, whether they be sold in wholesale furniture to the restaurant trade or whether they are offered over the counter to the public in a department store. After all, the manufacturing is basically from the same source.

Mr. LUKEN. If they are put into the real estate, then we have no control over it. The Consumer Products Safety Commission has no control over it. It would have to be in some kind of a fire code.

Mr. GRIMES. Oh, yes. As far as the use of the material is concerned in the premises, if you are talking about the difference between being attached to the wall and not on the wall—if it is attached to the wall it is part of the interior finish.

Mr. LUKEN. Then the Federal can't control it except through a Federal code.

Mr. GRIMES. Exactly, yes.

Mr. LUKEN. It would be a Federal fire code?

Mr. GRIMES. Only as far as the classification and the rating of those materials is concerned, they have to be done at some central point.

Mr. LUKEN. The only way we are going to get to this is to have some kind overall study so we will know how to approach it, but you are saying we shouldn't have it?

Mr. GRIMES. I say we don't argue with the study. We said only one thing. We don't think that the Federal fire code—writing of new Federal fire codes by the Federal Government and direct Federal enforcement, meaning for the public aspect, is necessary. We recognize there is a need for Federal involvement in identifying hazardous materials, classifying them, and having them identified in such a way that the inspecting officer can recognize what he is dealing with.

Mr. LUKEN. You think the study may be beneficial, but there are certain results of it which you may not be for?

Mr. GRIMES. I will be perfectly candid. In the fire codes and building codes, there are adequate provisions to protect the public, but there are some needs to improve that at Federal level, and there are some needs at the local level and particularly the enforcement level which definitely need some attention. I have a couple of recommendations on that.

Mr. LUKEN. Thank you.

Mr. GRIMES. We feel there is no reason to rewrite the Life Safety Code, or anything like that. Or for the Federal Government to rewrite it.

Mr. LUKEN. I suspect not, but there is a need to make it universal.

Mr. GRIMES. That is what this code is available for.

Mr. LUKEN. But it hasn't made it universal.

Mr. GRIMES. I am afraid we don't enforce; we just provide, sir.

Mr. LUKEN. But we might.

Mr. GRIMES. It is your prerogative.

Mr. LUKEN. We are here to talk about it.

Mr. GRIMES. I am being perfectly frank with you on this, too, sir. We are not in this with any vested interest. Most of us are fire-protection people. The members are interested in public safety. That is why they join our association and why they take part in the activities.

Mr. LUKEN. We appreciate that, and we appreciate getting their input.

Mr. GRIMES. I could give you three possible recommendations as a preliminary, but we will submit something more. It is, of course, action the Federal Government can take to help the State and local government officials in their difficult task.

First, we think they can assist in educating, convincing both the elected officials and the public at large that premises to which the public resort must be constructed and maintained in a fire safe condition; and that it is in the public interest to give fire officials authority to fully enforce fire safety rules, without interference and without pressures to impose or accept lower standards.

We make this recommendation advisedly, as we know that the local official is often not fully supported in his attempts to maintain reasonable standards. We feel that such lack of support is not only the part of elected officials, but also the public at large.

In fact, in most of the inspectors' experience, they do feel resentment when they close a place down because it is overcrowded. Local fire officials come under attack for doing that sort of thing. I have been through it personally myself. You become a target for the public who get thrown out of the building because it is overcrowded; then you become the target the next day of some of the elected officials and also the business community who are inconvenienced. So the local official has a very difficult job stepping on a lot of toes and needs some support and backing.

I think the nucleus of an effective public fire protection service already exists in most States and communities. What is lacking, however, are the resources to do the job properly. Almost every State fire marshal's office and city fire prevention bureau is understaffed and is faced with organizational weaknesses. In many cases, there is lack of authority or there are conflicting authorities with other governmental agencies between departmental and State levels and city levels.

Well-organized State and local fire prevention and enforcement bureaus, given adequate staff and authority, could effectively insure reasonable levels of public protection.

If Federal Government intervention in public fire protection is felt necessary, then let it be to assist and supplement, rather than to preempt.

The Federal Government should facilitate, through grants to the code-writing organizations, the large-scale training of fire prevention officials in the use and application of codes and standards.

The logistics of fire code enforcement is such that a large number of inspectors are required; for example, a place of assembly, such as the Beverly Hills. If that is regularly used premises, the fire inspector or person responsible for the fire prevention code should visit those premises at least once during the week, preferably during the show so he can observe whether the emergency lights are on, the other things are in place. And probably the next week he should visit in the

morning when the place is not being used so he can check the emergency lighting, check or defects, whether an alarm system or whatever might be provided. Once a week. There are a lot of places of public assembly in this country, and it is a big job if you want to do it. Otherwise, the codes are meaningless if you don't follow them up.

Mr. LUKEN. Do you know where that is done?

Mr. GRIMES. I suspect some of the cities and some of the states do try to do that. I am sure New York City makes it a weekly visit to all the places or major places of assembly; that is, the larger ones. I couldn't give you categorically where it is and isn't done. There are some 25,000 jurisdictions which have fire responsibility in this country. But we do know something about the number of inspectors available at state level.

Mr. LUKEN. You think it is practical at least in the population centers?

Mr. GRIMES. I am sure it is practical; it is even in the less densely populated areas. It would be a hardship for a small community to provide the staff. In those cases, and communities, the State should be carrying out such action.

Mr. LUKEN. Isn't that a major problem?

Mr. GRIMES. In what respect, sir?

Mr. LUKEN. That in the smaller communities——

Mr. GRIMES. Yes.

Mr. LUKEN. It really is incumbent upon the State if we are going to have effective inspection?

Mr. GRIMES. I think so. One of the suggestions I am coming to here is that there is a ready source for such personnel in the public fire departments. If you give them the proper training and guidance, the fire service can assume this role and should assume this role in many areas for the routine inspection.

Mr. LUKEN. But a one-man fire department or volunteer fire department would take a lot of training.

Mr. GRIMES. Exactly. In a lot of cases it is obviously going to be a State responsibility.

Mr. LUKEN. And I didn't say anything about volunteer fire departments.

Mr. GRIMES. I didn't think so. But I am quite prepared to do so as to volunteer firemen. Quite frankly it is impossible to expect a volunteer to come on and train to be a firefighter and at the same time carry out inspections of public buildings and accept the responsibilities that implies. I think that would be asking too much of our volunteer firemen, although in some areas there have been such attempts to do this.

Mr. LUKEN. I can testify to that, legitimate attempts to do it; yes.

Mr. GRIMES. Then there is the reaction you get from a large industry who happens to be in a small area and this does occur, they don't want the local fireman coming along to inspect their plant. Their own plant people are more knowledgeable. It is absolutely true. Plant safety people often know more about the safety of that plant than the local volunteer firemen. But the State level could provide inspection in those areas, I think.

Mr. LUKEN. In those cases, the State-OSHA is actually in control.

Mr. GRIMES. In the plants, yes, sure. But bear in mind that before OSHA came along, a lot of local authorities did inspect these plants.

Mr. LUKEN. I mean the State version of OSHA.

Mr. GRIMES. Yes.

Mr. LUKEN. Industrial safety department or whatever.

Mr. GRIMES. Yes. But I want to stress a point here about fire safety.

Mr. LUKEN. Isn't that where the gap is, then, with regard to the large industries that are in the small towns, where there may not be the facilities and resources for inspection, that gap is made up by the State which has the industrial safety department?

Mr. GRIMES. Yes.

Mr. LUKEN. With regard to the assembly halls or restaurants, things of that sort, where there may be a large number, there is a complete gap.

Mr. GRIMES. It depends on the State law. In some cases the State authority has the authority to inspect that sort of premises. Mr. Sanders could address that in more detail in a moment.

Mr. LUKEN. How many of the States are really geared to inspect?

Mr. GRIMES. I think there is a shortage of staff and trained personnel at the State level.

Mr. LUKEN. Which is woeful.

Mr. GRIMES. I agree. This point is terribly important. It is one thing to talk about a code and an inspector. You can hand this book to any of your gentlemen here but you don't become an instant expert in applying that code overnight. You can't go around a building and say this, this, and this.

Mr. LUKEN. Well, he did [pointing].

Mr. GRIMES. All I can say is I hope I don't have to resort to the building. And I hope that he checked things like fire doors which are open on this stairway, and the sprinkler system, I notice there is no sprinkler system here.

What I am saying is to be a fire inspector requires extensive training. He has to know about building construction, about the dynamics of fire. He has to know how fire behaves in a building, what it will do, what the effect of smoke will be. In other words, he has to be able to use a certain amount of judgment in the application of a standard, and this is one of the weaknesses of perhaps OSHA, that their inspectors are not thoroughly trained in fire protection, some of them.

They are using the book, go by the book. Quite often the major points are being missed. This is why I have great fears of a Federal fire inspector force. I think it is far better that the State be given the drive and impetus to provide it and the larger cities to do it. I think they can use the fire departments where they are full-time fire departments. And in the areas where they are volunteer and in less densely populated areas, the States should undertake to enforce fire codes.

There are several other points which we will bring in the written testimony, sir, because we intend to analyze the bill thoroughly and let you have our full comments on that.

Just one thing before I stop talking and pass over to the team here.

There is a letter attached to this testimony we have submitted for the record from the State fire marshal of California. I would suggest at some time that it would be worth reading that letter and digesting the contents.

I might add we contacted a large percentage of the State fire marshals in this country before we started putting together our response to the bill. We have feedback from a large number of them. Some of those letters will be attached to our selected submission.

Mr. LUKEN. I did read his letter and I thought there was some confusion, but I must admit that the colloquy this morning is straightening a lot of that out.

With reference to whether or not we are proposing a Federal code, of course, the bill doesn't propose a Federal code but simply that we should seriously investigate and obviously I have in mind that I think the witnesses here today have in mind that such an investigation may propose a whole loaf, half a loaf, a quarter of a loaf or none. But the investigation will be beneficial to everybody concerned because it will bring everybody together and try to get that consensus which you have indicated you are striving, as far as the codes are concerned, for more attention for a stronger enforcement; the whole atmosphere will be improved.

I notice in that one paragraph he says:

In regard to regulatory action, Federal preemption obviously has a place. I believe Washington has a rightful and necessary role in controlling those products which cannot be effectively governed by either State or local jurisdictions and which have some effect on interstate commerce. When fire protection becomes entangled with interstate commerce—as in the case of flammability standards for clothing, for fabrics, for upholstery, for furnishings, for fireworks and explosives—then I think there is a definite need for Federal preemption. As an example, flammability standards for children's sleepwear present unreasonable demands on a State-by-State basis. Yet Federal standards provide not only safety for the nation's children, but do so in a way that the sleepwear industry can meet with no great difficulty.

I am not sure that last statement is so accurate.

But anyway:

In addition, Federal restrictions on firecrackers have been of great benefit to local communities in ceasing the interstate traffic in these dangerous items.

And I would submit that these Federal restrictions on firecrackers which attempt to regulate the interstate transportation are of little benefit if a neighboring State actually sells the firecrackers and fireworks indiscriminately, because there is just no way you are going to police the borders of States. So I think that is a good statement but I would quarrel with at least that part of it.

Mr. GRIMES. We have maintained—we produced the model fireworks law referred to this morning. We feel that this law should be used in every State rather than the routine by CPSC to regulate the amount of explosives in firecrackers.

Mr. LUKEN. You think that should be voluntary with the States?

Mr. GRIMES. You are asking me a question whether I think the State is the authority to impose this? And I guess in terms of governmentally, yes, it should be the State decision. There are so many things that the Federal Government could impose and assume responsibility for. I think our staff and I can speak for our entire membership and probably the Fire Marshals Association, which is a section of our association, would probably say if the model law was adopted in every State, we would wholeheartedly support it.

Mr. Sanders is a fire marshal. He may be able to confirm that. If the Federal Government applied it as a Federal regulation throughout the country, I think they would wholeheartedly support that.

Mr. LUKEN. Of course, we could only do that if we passed a law which said that the States must adopt such a law and failing that, a Federal law would then go into place.

Mr. GRIMES. Yes.

Mr. LUKEN. And that is where you will find the objection.

Mr. GRIMES. Yes; and that is where you will find the objections, with anything in this direction in fire protection. You are going to run into the opposition of intruding on States' rights, home rule, everything else.

I would like to make one comment before I shut up and I will shut up.

Some here talked of codes and fire standards and losses in other countries. One of the things we have found, NFPA standards are very much used in other countries. Canada uses them extensively and parts of Asia use them. Some of the European countries also.

One of the comments we get when we have international meetings, from those countries where they have national laws and national controls, they wish they had standards like this, developed under this system, rather than the edicts written in the back room of a Federal agency by one or two people who think that is the way to go. And a lot of envy has been expressed.

In fact even in one commission report in the United Kingdom they recommended that the British Government look into the possibility of this route of developing the standards. That country is fairly heavy in stringent national fire regulation. So there are some advantages perceived from the other side of it by those who already have national controls about the way our standards have been developed. They don't say they would be used in exactly the same way by voluntary adoption, but with consensus as a way of developing a level of standards.

Mr. Sanders, I think, would like to talk about the State level involvement in this.

[Testimony resumes on p. 97.]

[Mr. Grimes' prepared statement and attachments follow:]

STATEMENT OF MARTIN E. GRIMES, ASSISTANT VICE PRESIDENT FOR GOVERNMENT AFFAIRS, NATIONAL FIRE PROTECTION ASSOCIATION

Mr. Chairman, we understand that the primary purpose of this first hearing on Bill H.R. 7684 is for you to ascertain how Building and Fire Codes are developed, adopted, and used. To serve that purpose NFPA has brought to you, a team of four persons who are intimately concerned with the development, adoption, and use of the NFPA Fire Codes and Standards. With me today are: Richard Stevens, Assistant Vice President—Standards, NFPA; John Sharry, Assistant Director, Engineering—Life Safety Code Specialist, NFPA; and Jack Sanders, the State Fire Marshal for Oklahoma who also is a member of the NFPA Standards Council, the body responsible for overseeing the NFPA standards development system. They will provide you with information on the various aspects of NFPA Fire Codes and Standards.

I would first like to make a brief statement on the Fire Codes and to follow this by a further, but brief statement on Bill H.R. 7684 which is of vital concern to the Membership of NFPA who are very close to the fire problems that prompted introduction of this bill.

NFPA FIRE CODES AND STANDARDS

The National Fire Protection Association is a non-profit, technical and educational membership organization, founded in 1896.

Our Membership of over 32,000 is drawn from the many disciplines involved in, and concerned about, the national fire problem. We are not a trade or industry association. No one group or interest is dominant. The only common denominator in our Membership is a concern about fire safety. Our Members include fire service personnel, fire marshals, electrical inspectors and city managers; architects, engineers and educators; health care facility operators and similar groups from commerce, industry, insurance, and the Federal government.

One of the principal functions of NFPA is the development of more than 200 consensus Codes and Standards related to fire protection. They range from the Life Safety Code through the National Electrical Code, the National Fuel Gas Codes and flammable liquids standards, sprinkler and similar equipment standards, to those used for fire apparatus, fire fighter safety, and professional qualifications.

Over 2,000 persons drawn from the many interest groups affected, serve voluntarily on 150 balanced committees formulating the standards; after an extensive legislative process by the Association, the resulting standards are widely used both in state, and federal regulatory functions and also for voluntary self-protection by industry and Federal government.

The Standards and Codes are available singly, or collectively, in the 16 volume: "National Fire Codes".

Many of the NFPA Codes and Standards are written in regulatory terms and are capable of direct-use as regulations. Before they are adopted for regulation purposes by federal, state, or local government, there must be enabling legislation or rule-making action to adopt them. They are usually adopted by reference or transcription; in some cases, they are used as "prima facie" evidence of compliance with laws and ordinances. Many industries and the insurance community use NFPA standards for their own self-protection and similar purposes. The Federal government uses NFPA standards for fire protection of almost all of its properties and facilities. It should be understood that, while some users adopt each and every one of the many NFPA standards, many use only those they consider appropriate to their needs.

In effect, NFPA develops standards which are then available for selective use for regulatory purposes by governmental agencies at all levels, for private self-protection, and for incorporation in model codes of a more general application.

It will be realized that, in producing standards that are subject to such selectivity on the part of the user, and which are used as regulations or for self-protection, it is essential to ensure validity and credibility. The standards-making system must be open, procedurally fair to all, must include representation on the widest basis, must provide for public review and comment, and must provide appeal mechanisms at various stages. The NFPA system incorporates all these safeguards.

Our system is detailed in Appendix "A". (Mr. Stevens will explain it in detail and answer any questions you may have on the NFPA standards system.)

It is highly significant that the widespread use of NFPA standards, at all levels of government and by industry, commerce, and other private groups has continued for many years and has increased considerably in recent years. Such usage reflects the high level of confidence and credibility both in the manner in which our standards are developed, and the effectiveness of the standards in providing protection.

(Mr. Sanders will testify on the way state and local governments adopt and use the standards and the advantages of having nationally developed consensus standards available for their use.)

NFPA employs the consensus method in standards development. This means that general agreement of a substantial majority of all concerned and affected interests is behind each and every standard delivered to the public. The public interest is further assured through the participation of federal, state, and local officials.

There is wide public notice given of all steps in the development of an NFPA standard and ample opportunity for review and comment. In addition, because NFPA standards are used extensively for fire protection of federal properties, as well as for regulation by Federal agencies, notice of NFPA standards-making action appears in the Federal Register.

NFPA standards are dynamic. That is, they are continuously reviewed and revised as technology changes and as new evidence of a need for change appears. Every standard must be either revised or re-adopted within five years; actually, most are revised after three years.

Two years ago, NFPA extended its service to users of its Codes and Standards by instituting a training program on the Life Safety Code which has proved so valuable to inspection and enforcing officials, that it has been established on a permanent basis and is now being expanded to cover other NFPA Codes and Standards.

The mere existence of Codes and Standards does not ensure safety. They must be adopted, enforced, and there must be a willingness to comply with the standards. These are the basic components of a safety system. The record of NFPA standards and indeed most safety Standards and Codes, has been extremely good, provided all the components of the safety system have been in place. It is, however, a complex system that cannot be judged on any one part out of context with the whole.

Good codes are useless unless adopted; adoption is useless unless enforced; enforcement can fail if public apathy or resentment is such that compliance occurs only when enforcers are present, or if officials are subject to political or commercial pressures to be lenient.

Similarly, no Code or Standard can be complete enough to provide total immunity from danger unless human behavior is complete enough to ensure that no act or omission will occur to negate provided safety measures. Human weakness is uncontrollable by regulation alone. Unfortunately, human error is, in various ways, the prime contributor to fire loss. Such error can be on the part of the public, the public official, the manufacturer, the builder, the researcher, the code-writers, and even the elected body.

We are convinced however, that the Codes and Standards component of the safety system is not the primary weakness that contributes to the multiple life losses that occasionally occur and the record will confirm this conviction.

[Mr. Sharry is available to deal specifically with the Life Safety Code, NFPA No. 101.]

H.R. 7684

We would be remiss if we did not indicate to the Subcommittee our initial reactions to Bill H.R. 7684. We do so now in a summarized form. Before the record closes, however, we expect to submit a more detailed statement and analysis reflecting the opinions of our diversified membership; all of whom are deeply concerned about the toll of life that fire takes in this country, not just occasionally, but every day of every week.

Over 20 persons die in fires every day, 150 every week. This is why our members have been working for years to provide better fire protection for their fellow human beings. Most of the effort to provide public fire protection, in the past, has been made at local and state government levels. Despite some failures and occasional disasters, life-losses have remained constant for several years and escalation of life-loss has not occurred although there has been a major increase in the number of fires. Federal involvement, other than in protecting its own properties and personnel, is of comparative recent origin.

The fact remains, however, that those of us who have been involved directly with fire protection over decades, know only too well that in obtaining public support for public fire protection, a major life-loss in one incident is the catalyst which often changes the indifference into concern. Unfortunately, the concern does not last.

That being the case, we cannot argue against any steps taken to reduce fire life-losses, including further studies. We do, however, suggest that ways to avoid such disasters as Columbia, Tennessee and Southgate, Kentucky are already available and that the writing of new Fire Codes by Federal government and direct Federal enforcement is not the answer.

That does not mean that Federal involvement in other forms is not necessary. Indeed, when it comes to regulating dangerous products which are used in interstate commerce and when considerable research and development in the field of fire protection is needed, the Federal government has vital roles to play. These roles have already been accepted and must be continued and accelerated with vigor; and, in the case of research, the results should be supplied to the Codes and Standards groups on a timely basis.

There are other courses of action that the Federal government can take to help state and local government officials in their difficult task of ensuring fire safety for the public. We list these actions now, briefly, and will expand on them in our further written submission.

The Federal government should:

1. Assist in educating and convincing both elected officials and the public at large that premises to which the public resort must be constructed and maintained in a fire-safe condition; and that it is in the public interest to give fire officials authority to fully enforce fire safety rules, without interference and without pressures to impose or accept lower standards.

We make this recommendation advisedly, as we know that the local official is often not fully supported in his attempts to maintain reasonable standards. We feel that such lack of support is not only on the part of elected officials, but also the public at large.

2. Provide grants-in-aid for the effective planning, management, and implementation of Codes enforcement by local authorities to a reasonable level of public safety; and to ensure that adequate numbers of trained personnel are available.

The nucleus of an effective public fire protection service already exists in most states and communities. What is lacking, however, are the resources to do the job properly. Almost every State Fire Marshal's office and City Fire Prevention Bureau is understaffed and is faced with organizational weaknesses. In many cases, there is lack of authority or there are conflicting authorities with other governmental agencies.

Well organized state and local fire prevention and enforcement bureaus, given adequate staff authority, could effectively ensure reasonable levels of public protection.

If Federal government intervention in public fire protection is felt necessary, then let it be to assist and supplement, rather than to preempt.

3. The Federal government should facilitate, through grants to the code writing organizations, the large scale training of fire prevention officials in the use and application of Codes and Standards.

The logistics of fire code enforcement is such that a large number of inspectors are required, for example, a place of assembly, regularly used, should be inspected weekly, or at the least, monthly. Frequency of inspection of other classes of occupancy vary but most require not less than quarterly inspection. This requires a large force of trained personnel.

It is insufficient to give a person the code book and let him loose. He needs training, highly specialized training. There is an urgent need both for more inspectors and more training.

There is a ready source for such personnel, that is the public fire services. Given the proper training and guidance, the fire service can assume, in many areas, a major role in public fire prevention and code enforcement. It is already doing this in some communities but not on the scale being recommended today.

There are several other points that arise on which we will comment for the record, later. Mr. Chairman, we have touched on the question of both existing Codes and Standards and on the Bill H.R. 7684. If there are any questions, our team will be pleased to answer them.

Attached to the written statement is a letter (Appendix "C") received relative to H.R. 7684, from one State Fire Marshal. I would strongly recommend you read this letter before coming to any conclusions about Federal intervention in state and local government fire protection.

PART II. TECHNICAL COMMITTEES

REGULATIONS GOVERNING TECHNICAL COMMITTEES*

(Adopted by the NFPA Board of Directors on February 5, 1974; Amended December 7, 1974, June 24, 1975, December 5, 1975 and June 22, 1976)

SECTION 10. AUTHORITY OF THE NFPA BOARD OF DIRECTORS AND THE STANDARDS COUNCIL

11. *General.*—In accordance with Article 5 of the Articles of Organization and Article 5.1 of the Bylaws, the Board of Directors of the National Fire Protection Association has general charge of the affairs of the Association and the Board (or the Officers of the Association subject to the approval of the Board) authorizes and appoints committees as occasion may require (see Article 7.2 of the Bylaws).

*These Regulations are supplemented by the Rules of Procedure for the National Electrical Code Committee as authorized by the NFPA Board of Directors.

The Board of Directors is responsible for the establishment, appointment and administration of the Technical Committees. To assist the Board in carrying out this responsibility, the Board appoints a Standards Council (hereinafter referred to as the Council) which reports to the Board of Directors in accordance with the Organization and Function of the Standards Council.

12. Publication of and Appeals from Standards Council Actions.—All actions of the Standards Council on Technical Committee matters shall be reported to the Association in a publication issued to the membership. Appeals from actions of the Council on Technical Committee matters shall be filed with the Assistant Vice President—Standards within thirty days following such publication.

13. Appeals to Board of Directors.—Those desiring to appeal to the Board of Directors concerning Standards Council action on Technical Committee matters shall file written communications with the President at least thirty days prior to the Board of Directors meeting at which action is to be requested, or prior to any limiting date as established by the Board of Directors and bulletined to the membership.

SECTION 20. ESTABLISHMENT OF TECHNICAL COMMITTEES

NOTE.—The word Association as used in the following text refers to the National Fire Protection Association.

21. General.—Any person, organization, or existing Technical Committee may request the Council to establish a Technical Committee to handle any problem of proper concern to the Association.

Following receipt of such a request, the Assistant Vice President—Standards shall:

(a) submit for publication by the Association a notice of receipt of the request and a solicitation of information on resources on the subject matter, those interested in participating on the Technical committee, if established, and other organizations actively involved with the subject, and

(b) submit the request for Technical Committee, the information resulting from the published notice and any other pertinent information to the Standards Council with a request for a recommendation on the establishment of the Technical Committee.

22. Establishment of Committee.—Following approval of the establishment of a Technical Committee by the Standards Council, the Assistant Vice President—Standards shall appoint a Staff Liaison who shall:

(a) prepare a recommended scope for the Technical Committee,

(b) prepare a suggested list of interests to be represented on the Committee,

(c) suggest a proposed Chairman for the Committee, and

(d) amass all available resource material for Committee consideration at its first meeting.

The material thus far prepared, with the exception of the resource material, shall be submitted to the Standards Council for approval, and if approved, the Staff Liaison shall prepare a suggested roster of personnel for the Committee which is subject to Council approval. The roster of committee personnel, including the identification of the Committee Chairman, and the committee scope, as approved by the Standards Council, shall be published by the Association.

23. Scope of Committees.—The scope of a Technical Committee shall state the primary charge to that Committee on specific subjects and such scope statement shall be subject to continuing Council review to eliminate any conflicts or overlapping of responsibility between Technical Committees. If an existing Technical Committee wishes to change its scope, it shall submit its proposals to the Council for approval.

24. Life of Committees.—Each Technical Committee shall other fashion by action of the Council.

25. Committee Responsibility.—Each standard code, recommended practice, manual, guide, or other publication issued by the Association as a result of Technical Committee activity shall be under the continuing jurisdiction of an appropriate Committee. This responsibility may be transferred from one Committee to another by action of the Council. It shall be the responsibility of each Technical Committee to review periodically the documents for which it is responsible to assure that they are kept current (see Section 90).

26. Staff Liaison.—The Assistant Vice President—Standards shall appoint a Staff Liaison to each Technical Committee who, in addition to performing the functions stated in 22 for new Committee projects shall:

(a) serve in advisory and guiding capacity to each assigned Technical Committee including the Committee's compliance with these Regulations.

(b) on instruction and guidance from the applicable Technical Committee prepare text for new documents and amendments to an existing document.

(c) coordinate the text of documents for which the assigned Committees are responsible with the text of other documents to avoid insofar as practicable conflicts and duplication.

(d) be responsible for the editorial treatment of Technical Committee documents to assure compliance with the NFPA Manual of Style,

(e) attend meetings of his/her Technical Committees and their subcommittees, when possible,

(f) keep the applicable officer(s) of each Technical Committee assigned, informed concerning changes in committee personnel, availability of meeting dates and places, and the like,

(g) perform such other functions as may be stated in these Regulations or assigned by the Assistant Vice President—Standards,

(h) prepare each Technical Committee Report for publication and prepare Committee Documentation on comments received, if any, for publication, and

(i) prepare any comments received on a Committee Report in a form suitable for committee consideration.

SECTION 30. COMMITTEE MEMBERS AND OFFICERS

31. Appointment of Chairman, Members, and Their Tenure.—The Chairman and members of each Technical Committee (including Sectional Committees) shall be appointed by the Standards Council. All such Committee appointments are subject to annual review and reappointment and those members who consistently fail to attend meetings, neglect to return ballots, or otherwise exhibit lack of interest, knowledge or responsibility shall not be reappointed.

When a committee member changes employment, the continuity of the committee appointment shall be reviewed. This shall be done by submitting a new application for membership to the Assistant Vice President—Standards. The new business interest and affiliation of the applicant and his or her classification shall be considered by the Council when reviewing the new request for membership.

32. Other Officers.—A Chairman may appoint from among the membership of the Committee, other officers to serve the Committee, except that a person not a member of the Committee may be appointed Secretary thereof without vote. The Chairman may delegate to such other officers such duties as may serve the purposes of the Committee as consistent with these Regulations. Association Staff personnel shall not be assigned as officers of a Technical Committee except as authorized by the Standards Council (see 38).

33. Composition of Committees and Qualifications of Members.—Appointments to and continued service on an Association Technical Committee shall be based on:

(a) the knowledge and competence of each person in the work of the Committee to which that person is nominated or on which the person serves,

(b) the ability of each person to participate actively in the work of the Committee,

(c) the concept of securing balanced representation among all the interests substantially concerned with the objectives of the Committee, and

(d) maintaining each Technical Committee within the limits of manageable working groups.

If any individual or organization has applied for and has been denied membership on a Committee, the individual or organization may, within a sixty-day period after notification, file an appeal with the Standards Council for purposes of reconsideration.

34. Classification of Voting Members.—A person meeting the qualifications outlined in 33 may be appointed by the Council to membership on a Technical Committee in one of the following classifications:

(a) An Organization Representative appointed as a representative of a qualified international, national, or regional organization who has the authority to speak for his/her organization in the particular field of Committee activity,

NOTE 1.—This type of membership is a preferred method to secure representation of interested groups.

NOTE 2.—The word "organization" as used in 34(a) has the same meaning as the phrase "organization member" does in Article 3.3 of the NFPA Bylaws.

(b) At Representative of an NFPA Section or Technical Committee designated by a Section or Committee to represent it on a Committee, or

(c) A personal Member of a Committee may be any person regardless of association, business, or service connection, especially qualified to serve. Such members shall be appointed on the basis of their *personal* qualifications, although, for

purposes of Committee balance, their business interests and affiliations shall be considered.

35. Alternates.—An organization, an NFPA Section or a Technical Committee may nominate an alternate (or alternates) as its representative (or representatives) in cases of demonstrated need. Each such appointment is subject to the qualifications specified in 33. Personal members shall not be privileged to have alternates.

36. Restricted Voting Members.—Upon recommendation of the Chairman of a Technical Committee, the Standards Council may appoint an individual having an interest in only a portion of the scope of the work of a Committee with voting privileges restricted to that portion of the scope.

37. Nonvoting Members.—A person meeting the requirements of 33 may be appointed to a Technical Committee as a nonvoting member if the Council feels that such an appointment serves a useful purpose. Nonvoting members may serve a Committee in an advisory, corresponding, or liaison capacity, or as Committee Secretary, as provided in 32.

38. NFPA Staff.—With the approval of the Standards Council an Association Staff member may be appointed to a Technical Committee to serve as a nonvoting Secretary.

39. Association Membership.—Membership in the National Fire Protection Association or any of its Sections shall not be a condition of appointment to a Technical Committee of the Association.

NOTE.—Individuals engaged in the Committee service will find NFPA membership helpful in connection with their Committee responsibilities.

SECTION 40. COMMITTEE ORGANIZATION

41. General.—Except as otherwise provided in these Regulations, Robert's Rules of Order shall govern the transaction of business at Committee meetings.

42. Sectional Committees.—The Standards Council may create or authorize the establishment of Sectional Committee(s) to deal with a specialized subject(s) within the scope of a Technical Committee project. Members of such a Sectional Committee, its scope, and the appointment of a Chairman shall be subject to approval of the Standards Council as specified in Section 30 of these Regulations.

NOTE.—A Sectional Committee is distinguished from a Subcommittee (see 43) in that it has a continuing responsibility as described in its scope, can be created only by action of the Standards Council and may be discharged only by action of the Council. A Subcommittee, on the other hand, may be established and discharged by a Technical Committee to handle a specific assignment on a "one-time" (as opposed to a "continuing") basis.

A Sectional Committee shall operate under the direction of a parent Technical Committee, which may also be a Correlating Committee. In either case, any report prepared by a Sectional Committee for submittal to the Association for action shall meet the requirements of 62.

The Technical Committee shall direct the activities of the Sectional Committees, which have primary responsibility for the development and revision of documents assigned to them. The Technical Committee shall act in an administrative and judicial capacity to establish that no conflicts exist and that satisfactory correlation is achieved among the recommendations of the Sectional Committees. Each report of a Sectional Committee shall be reviewed by and a two-thirds affirmative vote secured from the Technical Committee before the report is submitted to the Association. In cases where the Technical Committee finds reason to object to a report, it shall refer the report back to the appropriate Sectional Committee with explanation as to its reasons for so doing but shall not, itself, modify the report.

43. Subcommittees.—A Technical Committee or Sectional Committee may create Subcommittee(s) to help carry out its work. Appointments may be made by the Chairman. Personnel serving on a Subcommittee may be members of the Technical Committee or Sectional Committee, but the Subcommittee may also include representatives of cooperating organizations or qualified specialists from outside the membership of the Committee or Sectional Committee. The Chairman of each Subcommittee shall be a member, alternate member, or nonvoting member of the Committee or Sectional Committee. Each Subcommittee shall report only to the Committee or Sectional Committee, and shall not release any report prior to action except as the Committee or Sectional Committee may specifically direct for the purpose of securing comments and criticisms prior to any official action (see also Section 140 of these Regulations).

NOTE.—When a Technical Committee reports to the Association and its report includes work done by a Subcommittee, the names of those serving on the Subcommittee should be recorded. See 78 on voting by Subcommittee members.

SECTION 50. ACTIVITIES OF TECHNICAL COMMITTEES

51. *Scope of Work.*—The scope of the work of each Technical Committee shall be:

(a) in accordance with the action of the Standards Council in creating such Committee (see 23).

(b) in accordance with any instructions subsequently issued by the Standards Council, and

(c) consonant with the objectives of the Association (see Article 2 of the Articles of Organization and Article 2.1 of the Bylaws).

52. *Activity Within Scope.*—Each Technical Committee may prepare:

(a) proposed codes, standards, recommended practices, manuals, or guides (hereinafter referred to as documents), and

(b) amendments to existing documents.

53. *Document Content.*—Each Technical Committee shall, as far as practicable, prepare documents in terms of required performance, avoiding specifications of materials, devices or methods so phrased as to preclude obtaining the desired results by other means. It shall also, as far as possible, base its recommendations on fire experience, research data, engineering fundamentals or such other information as may be available to it.

54. *Intercommittee Coordination.*—Any Committee dealing with a subject that falls within the primary charge of another Technical Committee (see 23) shall coordinate its activities with the Committee having primary jurisdiction and shall avoid conflicts and minimize duplication. Questions of jurisdiction between two or more Technical Committees shall be subject to adjudication by the Standards Council.

55. *Special Intercommittee Coordination on "Hazardous Areas".*—Each Technical Committee responsible for standards on hazardous or potentially hazardous solids, liquids or gases is charged with the responsibility for drafting recommendations on the character and extent of the hazardous areas where such materials are handled and/or stored. Where doing so will affect an Association Standard under the jurisdiction of another Technical Committee, the Technical Committee dealing with hazardous or potentially hazardous materials shall correlate its recommendations with and seek concurrence of the other affected Committee.

NOTE.—The procedure to be used may vary with each situation and may include reaching agreement through correspondence or, when needed, through joint meetings of the Committees concerned. Arrangements for joint meetings should be made through the Assistant Vice President-Standards.

If a satisfactory solution to any differences cannot be found, the problem shall be referred to the Standards Council.

56. *Scheduling of Committee Reports.*—Each Technical Committee shall submit to the Assistant Vice President—Standards for approval by the Standards Council a time schedule for the submission of a committee report involving amendments to each of the documents for which it is responsible.

57. *Coordination Required on Suggested Laws or Ordinances.*—A Technical Committee shall not submit a report in the form of Suggested Law or Ordinance except with the concurrence of the Standards Council.

58. *Reference to Other Standards.*—When a reference is made in a Technical Committee report to a standard prepared by any organization, such a reference shall contain the sponsor, title, date, or edition, and, preferably, the specific parts of the standard to which reference is made. Committees shall include such references only after review of such standards, satisfying themselves that the references are adequate and appropriate.

59. *Association Staff Liaison.*—Each Committee Chairman shall keep the designated Staff Liaison fully informed on the work of his/her Committee and any Subcommittees he/she may appoint, a coordinate meeting dates with the Staff Liaison, and supply the Staff Liaison with copies of all Committee and Subcommittee documents (e.g. agendas, minutes, ballots, reports, and correspondence).

SECTION 60. PROCESSING OF REPORTS BY COMMITTEES

61. *Processing Committee Reports.*—A report prepared by a Technical Committee and consisting of a new document or amendments to an existing document (code, standard, recommended practice, manual or guide) shall be offered for official adoption at an Annual Meeting or Fall Meeting of the Association. If a

Committee deems it essential and the Standards Council approves, the Committee may submit its report for tentative adoption. Approval for such proposed action shall be on the basis that the document, if tentatively adopted by the Association, shall not remain tentative for more than two years.

A document shall not be amended more than once annually.

62. *Submittal of Reports for Association Action.*—Each Technical Committee shall submit any report (together with the results of a letter ballot) requiring Association action to the Assistant Vice President—Standards of the Association not later than the date established by the Assistant Vice President—Standards annually. Any report received after that date shall be held for consideration by the Association at the meeting following the one for which the closing date was established.

NOTE.—Annually the Association will publish a calendar of events for the processing of committee reports for the ensuing year. Because the calendar sets publication dates that provide minimum printing schedules, the dates for receipt of committee reports and documentation will be rigidly applied.

Each report shall be in a form suitable for publication as prescribed by the Association. Each report shall have been submitted to letter ballot of the Committee (see Section 70). At least two-thirds of the members eligible to vote shall have voted in the affirmative on each report presented. The results of the ballot including the reasons for negative votes shall be transmitted to each Committee member.

63. *Publication of Reports.*—The Association shall print each Committee report for distribution upon request to interested NFPA members and others prior to the Association meeting at which action is being requested. Notice of the availability of Technical Committee Reports shall be published in *Fire News* and other appropriate media.

Each compilation of published Committee reports shall contain a notice of a comment closing date which shall provide for a comment period of approximately 60 days.

64. *Comments on Committee Reports.*—Each recipient of the Technical Committee Reports may propose amendments to the reports or portions of them within the comment period established. Such proposed amendments shall be confined to those items under consideration for action. Proposals received after the closing date shall not be considered by the Technical Committee for the current report under consideration.

Each proposal for amendment shall be submitted to the Assistant Vice President—Standards and each proposal shall include:

(a) Identification of the document and paragraph of the document to which the proposal is directed, and

(b) A statement of the problem, and

(c) Proposed text of recommendation, and

(d) Substantiation for the recommendation.

A technical committee shall not be required to consider a proposal which does not include all of the required information listed in 64(a) through 64(d).

65. *Committee Amendments.*—Amendments (including additions) to a committee report originating within the committee responsible for the report shall be confined to amendments resulting from comments on the report and for the correction of errors.

66. *No Comment Received.*—A technical Committee Report on which no proposal for amendment is received shall be submitted to the next meeting of the Association for action.

67. *Disposition of Comments.*—A comment proposing amendment of a Technical Committee Report shall be considered by the affected Technical Committee at a duly called meeting unless the Chairman determines that the proposal is of such a character that it can be handled by correspondence. This Committee shall document its action on each proposal in a form suitable for publication.

The calendar of events published by the Association will indicate the time constraints on the Committee for finalization of its report. Each Committee shall establish the date for this meeting so as to process all the comments received and comply with the Association timetable.

When a committee makes a substantial change in its report as a result of consideration of public comments it shall withdraw the report or portion of the report that has been substantially changed and process the withdrawn material through a new standards cycle.

68. *Committee Action on Disposition of Comments.*—When a Technical Committee has completed the preparation of its documentation on comments received,

the documentation shall be submitted to letter ballot of the committee (see Section 70). Requirements for balloting shall be the same as the Committee report (see 62).

69. Publication of Committee Documentation.—The Association shall publish the committee's documentation on each comment proposing an amendment to a Committee Report and the results of the Committee ballot on the documentation for distribution to interested members and others prior to the Association meeting at which action is to be taken. Notice of the availability of Committee Documentation including a request closing date shall be published in *Fire News* and other appropriate media.

Committee Documentation with the Committee ballot shall be received by the Assistant Vice President—Standards as established by the published calendar of the Association. Any documentation received after the closing date shall be held for subsequent consideration of the Association at its next meeting.

SECTION 70. VOTING PROCEDURES—TECHNICAL COMMITTEE MEMBERS

71. Voting Privileges.—Each individual selected in accordance with the provisions outlined in 31 through 34, including the Chairman, shall have one vote in the affairs of the Technical Committee on which the member serves including an individual appointed by the Standards Council as a representative of more than one Organization. (See 36 for "restricted voting member" privileges.) The votes of Alternates shall be counted only when their Principals do not exercise their voting privileges.

72. Voting by Proxy.—Voting by proxy shall not be permitted.

73. Voting at Meetings Subject to Ballot Confirmation.—Formal votes of Committee members shall be secured by letter ballot. Voting in Committee meetings is normally a convenient way to transact business efficiently under Robert's Rules of Order, but only the results of formal letter ballots shall be used to determine the official position of the Committee.

74. Form of Committee Vote.—As specified in 62, at least two-thirds of the members eligible to vote shall have voted in favor of the report as a whole. In calculating the two-thirds majority, those who have expressed in writing valid reasons for not having voted and those who after a second request fail to return their ballots shall be omitted from the calculations. In all cases an affirmative vote of at least a simple majority of such total membership is required.

NOTE.—Members who do not return ballots shall be separately reported to the Assistant Vice President—Standards by the Committee Chairman with comment as to the eligibility of the members for continued service on the Committee.

A statement in the following form shall accompany every Committee report:

This report has been submitted to letter ballot of the Committee which consists of . . . voting members, of whom . . . have voted affirmatively, . . . negatively, . . . requested to be recorded as not voting, and . . . have not returned ballots. . . . has (have) voted negatively. . . . has (have) asked to be recorded as not voting. . . . has (have) not returned ballot(s).

75. How Votes Are Secured.—The vote of Committee members and alternates shall be secured by the Chairman's sending to each member and alternate a copy of the document in question together with a ballot form. A period of not more than thirty days shall be required to complete such balloting except when additional time is specifically requested by the Committee and approved by the Assistant Vice President—Standards prior to the action.

76. How Members May Vote.—Each member voting on a Technical Committee Report shall record his or her opinion as "affirmative," "negative," or "not voting" on the ballot required in 75 within the time limit specified on the ballot. A Committee member voting "negatively" or recorded as "not voting" shall include a statement of reasons with the letter ballot.

If a Committee report contains recommendations on more than one document the report shall be divided into parts, each part dealing with a separate document, and a separate ballot shall be taken on each part.

77. Committee Member Commentary.—Committee members have the right to present commentary either individually or jointly by following the procedures outlined in 64 of the Regulations.

78. Voting by Subcommittees.—Subcommittees established under the provisions of 43 shall vote on proposals prepared by them in general conformance with the applicable provisions of this Section. However, only the personnel of the sponsoring Committee or Sectional Committee or both shall letter ballot on the report when it is being processed for consideration by the Association.

SECTION 80. PROCESSING OF REPORTS AT ASSOCIATION MEETINGS

81. Who May Vote at Association Meetings.—Voting on Technical Committee Reports at Association Meetings shall be limited to Organization Members through their accredited representatives present, and to the Members present, in accordance with the privileges specified in Article 3 of the Bylaws. Voting by proxy shall not be permitted.

NOTE.—Accredited representatives are those whose names have been recorded with the President by the Organization they represent before the meeting (see Article 4.3 of the Bylaws). Honorary Members have the privileges of Members.

82. Authority of an Association Meeting.—In respect to reports of Technical Committees, the Association Meeting may take the following actions:

(a) adopt a report as published or as modified by the Technical Committee to effect editorial improvements or correction of errors [see 84(a)],

(b) adopt a report as amended in accordance with the provisions of 83(a) contingent upon subsequent approval by the required number of members of the Technical Committee concerned as specified in 74 [see 83(e) and 84(b)], or

(c) return a report to the responsible Technical Committee for further study [see 84(c) and (d)].

83. Amendments at an Association Meeting.—(a) An amendment to a Technical Committee Report may be presented at a Meeting of the Association only by one who has previously proposed in writing the same amendment to the Technical Committee during the comment period specified in 64.

(b) Before proposing an amendment, the proposer shall state his or her name and affiliation.

(c) The proposer shall refer to the specific item published in the Technical Committee Documentation.

(d) Suggestions for editorial improvement, if any, shall be given to the Chairman of the Technical Committee concerned for his or her consideration prior to the presentation of the Committee Report.

(e) An amendment adopted at a meeting of the Association shall be submitted to letter ballot of the responsible Technical Committee and the ballot shall be completed within 30 days following the first business day after adjournment of the Association Meeting. If the amendment is approved by the Committee as provided in 74, the amendment shall stand, and the provisions of 84(b) shall apply.

If the amendment is not approved by the Committee, the portion of the report modified by the amendment shall be automatically referred back to the Committee and the remainder of the report shall stand as adopted by the Association unless it is determined by the Committee that the resulting document would be unsuitable, in which case the entire portion of the report pertaining to that document shall be referred back to the Committee for further consideration.

84. Disposition of Reports.—(a) A technical Committee report that is adopted by the Association Meeting shall become official as of the date of the action taken by the Meeting.

(b) A Technical Committee report that is adopted as amended becomes official on the day that the ballot specified in 83(e) indicates that the Committee approves the amendment.

If the amendment is rejected by the Committee, the date of such action becomes the effective date unless the Committee determines the resulting document to be unsuitable. In making this determination the Committee should recognize that any existing text to which the amended portion of its report pertains shall prevail.

(c) When a Technical Committee report is not adopted any existing text to which the rejected report pertains shall prevail subject to action at some subsequent Association Meeting.

(d) When a Technical Committee report is not adopted, the Technical Committee may act on the comments received at the meeting in accordance with 67, 68 and 69 and request action on its amended report at the next meeting of the Association.

NOTE.—This procedure permits a Committee to resubmit without a second publication in the Technical Committee Reports.

SECTION 90. RECONFIRMATION OF EXISTING STANDARDS

91. Periodic (five-year) Policy.—A Technical Committee document which has been approved by the Association and which has been so approved for 5 years without amendment shall be recommended for reconfirmation or withdrawal by

the Technical Committee responsible for it except where an extension of time has been requested of and approved by the Standards Council.

92. Procedures.—The applicable procedures outlined in Sections 60 and 70 of these Regulations shall be followed except that the document to be reconfirmed or withdrawn need not be published in the Technical Committee Reports. Any individual interested may secure from the Association's Executive Office a free copy of the existing text to permit review and comment.

93. Comments Received.—When a Report proposing reconfirmation of a document receives public comment with which the committee agrees and which would result in a substantive change in the document, the committee shall withdraw its Report, consider the comments and prepare an amended document for processing through the next available entire standards making cycle.

SECTION 100. TENTATIVE INTERIM AMENDMENTS

101. Authorization.—An Interim Amendment to any existing standard, code, recommended practice, manual, or guide may be issued by a Technical Committee if all the following conditions prevail:

(a) the Interim Amendment is of an emergency nature requiring prompt action, and

(b) at least three-quarters of the members of the Technical Committee are in favor of the Interim Amendment, and

(c) the Interim Amendment has been reviewed and approved for release by the Standards Council, and

(d) in the release of the Interim Amendment, its Tentative character is clearly indicated.

102. Publication of Interim Amendments.—The Association shall publish in one of its publications sent to all members notice of the issuance of each Interim Amendment, shall issue a news release to the applicable and interested technical journals, and shall also include in any subsequent distribution of the document to which the Interim Amendment applies the text of the Interim Amendment in a manner judged most feasible to accomplish the desired objectives.

103. Effective Period of Interim Amendments.—It shall be the obligation of the Technical Committee concerned to process any Interim Amendments through normal Technical Committee procedures (see Sections 60 and 70) at the next Meeting of the Association, to which the Committee is scheduled to report.

104. Exception.—When the Board of Directors authorizes other procedures for the release of Interim Amendments, the provisions of this Section shall not apply.

NOTE.—See, for instance, the Rules of Procedure for the National Electrical Code Committee.

SECTION 110. OFFICIAL INTERPRETATIONS

111. General.—Each Technical Committee and each Sectional Committee shall adopt the following Official Interpretation Procedure for the purpose of providing official explanations of the meaning or intent of any specific provision or provisions of any document under its jurisdiction.

NOTE.—This Official Interpretation Procedure does not prevent any Committee Chairman or member of any Committee from commenting on the meaning or intent of any provision of any such document, provided that the comment is clearly identified as not being an Official Interpretation of the Committee or the Association.

112. Nature of Official Interpretations.—Two general forms of Official Interpretations shall be recognized:

(a) those making an interpretation of the literal text, and

(b) those making an Interpretation of the intent of the Committee when the particular text was adopted.

113. Editions to Be Interpreted.—A Technical Committee shall render official interpretations on the text of the latest officially adopted document and any text of earlier editions which is identical to the text in the latest document. A committee may render to the requester an official interpretation on text of an outdated document which has been revised in or deleted from later editions. It should, if possible, inform the requester why the text was revised or deleted.

114. Procedures for Requesting Official Interpretations.—A request for an Official Interpretation shall be directed to the Chairman of the Committee concerned, at the National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210, supplying five identical copies of a statement in which shall appear specific references to a single problem and identifying the portion of the

document (article, section, paragraph, etc.) of which the interpretation is requested. Such a request shall be on the business stationery of the requester and shall be duly signed. A request involving an actual field situation shall so state and all parties involved shall be named.

115. Handling of Requests for Official Interpretations.—A request for an Official Interpretation may be processed exactly the way it has been submitted, or it may be rephrased to clarify the intent. A committee may refuse to consider a request if it is found not to be in proper form or not consistent with 112 and 113. The request or the rephrased version of it and any pertinent background information shall be sent to the requester and all parties named in the request for comment. A deadline for the receipt of comments shall be established.

116. Establishment of Interpretations Subcommittee.—If accepted for consideration, each request shall then be submitted to letter ballot of an Interpretations Subcommittee made up of five or more members or alternates of the Committee having primary jurisdiction of the document covering the subject under consideration selected by the Chairman or the Assistant Vice President—Standards if the Chairman is not available. No member or alternate shall be eligible for appointment to an Interpretations Subcommittee if he or she is directly involved in the particular case prompting the request for the Interpretation. The Interpretations Subcommittee should include committee members or alternates representing the same interest categories as the requester and the other parties involved. The personnel of Interpretation Subcommittees may be varied for each request.

117. Voting on Interpretations.—In any case where there is more than one negative vote in the Interpretations Subcommittee, the request for Interpretation shall be referred to the Committee. Under these conditions, adoption of an Official Interpretation requires approval by a majority vote of that Committee as tallied in accordance with 74. Where the necessary majority vote is not received, the item shall be placed on the docket for regular processing by the Committee for subsequent possible action. If the required vote is secured from the Interpretations Subcommittee or from the Committee, the requester shall be informed and the Interpretation shall be published by the Association in one of its publications sent to all members and announced in an Association news release to other media. Interpretations of text of an outdated document which has been revised in or deleted from later editions shall not be published by the Association but shall be sent to the requester and all parties named in the request.

118. Action Following Issuance of Official Interpretations.—Any Committee that issues an Official Interpretation shall review the item on which the Interpretation has been issued to determine whether any change may be desired to the text of the document on which the Interpretation has been rendered. If such a change is indicated, the Committee shall process such change in conformance with procedures set forth in Sections 60 and 70.

119. Time Limit on Official Interpretations.—Any Official Interpretation issued shall apply to the Edition of the document for which the Interpretation is made and to any other Edition of the document if the text is identical to the text of the edition to which the Official Interpretation was rendered.

SECTION 120. CALLING COMMITTEE MEETINGS

121. Establishing Committee Meeting Places and Dates.—Committee Chairmen shall call meetings of Technical Committees (including Sectional Committees and Subcommittees) at such times as may be necessary and convenient for the transaction of Committee business. Technical Committees (including Section Committees) should meet at least once each year, except that in the absence of business requiring Committee action, meetings may be omitted.

NOTE.—All Committee members should be requested at least once annually to express their feelings as to the need for review of any matter within the scope of the Committee's interests.

122. Committee Notices.—A Chairman shall issue a call for a meeting and distribute an appropriate Agenda at least 14 days in advance of the date for which the meeting is called, or at such a time interval prior to the meeting as the membership of the Technical Committee (including Sectional Committees and Subcommittees) may earlier agree. Prior to issuing a call for such a meeting, the Chairman shall consult with the Assistant Vice President—Standards (see 59) to be appraised of other Technical Committee meetings or other scheduled events which may affect attendance at the proposed meeting.

NOTE.—The Association normally provides in each calendar year facilities where Committees may meet in a single location on specific dates so that Committee

members serving on more than one Committee can conveniently fulfill their obligations at minimum inconvenience and cost. Committee Chairmen are requested to schedule meetings during these periods where feasible.

123. Notifying the Assistant Vice President—Standards.—Notices of Committee meetings shall be sent in advance to the Assistant Vice President—Standards (see 59).

SECTION 130. ATTENDANCE AT COMMITTEE MEETINGS

131. Attendance Restricted.—Attendance at NFPA Technical Committee meetings shall be limited to Committee members, their alternates (see 133), their representatives (see 134), officers of the Association, members of the NFPA Standards Council, delegates representing other NFPA Technical Committees considering related subjects, NFPA Staff personnel, and guests invited by vote of the Committee or by the Chairman upon authorization of the Committee. Committees may, if desired, hold open meetings or hearings to which the public may be invited.

NOTE.—Special arrangements normally will be necessary in such an event and all such public meetings or hearings shall be cleared with the Assistant Vice President—Standards.

133. Attendance of Alternates.—Alternates appointed under the provisions of 35 shall have the privilege of attending meetings. An alternate shall have the same rights and privileges as the principal when the principal is absent. When the principal and the alternate are both present, an alternate may have the privilege of the floor only with the consent of the Chairman of the Committee. (See also 71 and 75.)

134. Attendance of Representatives of Members.—If a member of a Technical Committee (or the Alternate) cannot attend, a qualified representative may be sent to express the views of the absent member at a meeting of that Technical Committee. The representative may not vote.

NOTE.—For the purposes of these Regulations, a distinction is made between an "alternate" and a "representative." For voting requirements, see 75.

SECTION 140. RELEASE OF COMMITTEE REPORTS AND COMMITTEE MINUTES

141. Publication of Committee Reports Restricted.—Technical Committees shall not issue reports or release codes, standards, recommended practices, manuals or guides developed by the Committee except as herein provided:

(a) During the development of such material the distribution shall be limited to: (1) the members of the responsible Committee; (2) the Assistant Vice President—Standards; (3) the membership of cooperating Association Committees; (4) members of working Subcommittees; and (5) others whom the Technical Committee specifically desires to receive such drafts, except when the Committee, by majority vote, authorizes distribution of drafts to secure comment and assistance with specific warnings as to their status as Committee working papers. (See also 43.)

(b) When the reports are judged to be in form for Association action, they shall be submitted to the Assistant Vice President—Standards in accordance with 62. Committees shall not issue material for publication through any other channel except in cases where the Technical Committee is sponsored jointly with another Association (see 151).

142. Copyrights.—Copyrights on each code, standard, recommended practice, manual or guide, or other publication produced by an Association Technical Committee are reserved to the National Fire Protection Association.

NOTE.—Copyrighting is for the purpose of preventing misuse of Committee material, to control the distribution of obsolete material, and to assure that partial extracts are not improperly used. The Association Executive Office shall be responsible for authorizing reproduction of copyrighted Association Technical Committee documents in the interests of furthering the objectives of the Association and its Technical Committees.

143. Minutes of Committees Meetings.—Minutes of each Technical Committee Meeting shall be recorded and issued without undue delay by the Committee Chairman, the Committee Secretary, or a duly appointed individual acting at the direction of the Chairman or Secretary. No other minutes shall be authorized and verbatim, transcriptions of Technical Committee meetings made by tape recorders, stenotype machines, or other means shall not be permitted unless authorized by the Chairman. Distribution of minutes shall be restricted in the same manner as required for reports in 141(a).

144. Distribution of Reports and Minutes.—Technical Committees shall file with the Assistant Vice President—Standards at least one copy of all drafts, minutes, and other material distributed to their members. Providing copies of drafts, minutes and other material to the Staff Liaison shall be considered as tantamount to filing with the Assistant Vice President—Standards.

SECTION 150. SUPPLEMENTARY REGULATIONS

151. Joint Projects.—Technical Committees organized as joint projects with other associations or organizations or which also operate as Committees of the American National Standards Institute should conform to the procedures established by such other groups insofar as such conformance is not in conflict with these Regulations or the Bylaws of the Association.

152. Submittal of Standards by other Organizations to NFPA.—Other organizations sometimes submit a standard or other publication of their own creation which covers or includes fire prevention or fire protection considerations for technical evaluation by the Association. The Assistant Vice President—Standards shall submit such documents to the Association Technical Committee having primary interest for its review and comment where, in the opinion of the Assistant Vice President—Standards of the Association, such action is appropriate. Committee members shall be requested to express an evaluation of the technical content of such standard for the guidance of the Assistant Vice President—Standards in processing the request. Nontechnical comments shall not be considered in determining the Association's position on the standard.

In cases where the Assistant Vice President—Standards determines that the Association does not have a Technical Committee qualified to make the desired technical review, he is authorized to advise the submitter that the Association is not in a position to express an opinion on the submittal, or he may request guidance from the Standards Council.

153. Supplementary Regulations.—A Technical Committee may adopt supplementary regulations governing its various activities, provided that such supplementary regulations are consistent with the Bylaws of the Association and with these Regulations. Amendments to the Bylaws of the Association or to these Regulations shall automatically supersede any such supplementary regulations which may be in conflict therewith.

SECTION 160. TERMS

161.—The following terms commonly found in the Association technical reports shall have the following meanings:

NOTE.—Where these terms are used or defined in the body of the text of a standard, code, recommended practice, manual or guide, they shall be consistent with the intent of these meanings but these "definitions" may be altered to fit the individual needs of the publication.

(a) **Approved:** means "acceptable to the authority having jurisdiction,"

NOTE.—The National Fire Protection Association does not approve, inspect or certify any installations, procedures, equipment or materials nor does it approve or evaluate testing laboratories.

In determining the acceptability of installations or procedures, equipment or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure or use. The authority having jurisdiction may also refer to the listings or labeling practices of nationally recognized testing laboratories, inspection agencies, or other organizations concerned with product evaluations which are in a position to determine compliance with appropriate standards for the current production of listed items, and the satisfactory performance of such equipment or materials in actual usage.

(b) **Authority having jurisdiction:** The "authority having jurisdiction" is the organization, office, or individual responsible for "approving" equipment, an installation, or a procedure.

NOTE.—The phrase "authority having jurisdiction" is used in NFPA standards in a broad manner since jurisdictions and "approval" agencies vary as do their responsibilities. Where public safety is primary, the "authority having jurisdiction" may be a federal, state, local, or other regional department or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor department, health department, building official, electrical inspector, or others having statutory authority. For insurance purposes, an insurance inspection department, rating

bureau, or other insurance company representative may be the "authority having jurisdiction." In many circumstances the property owner or his delegated agent assumes the role of the "authority having jurisdiction"; at government installations, the commanding officer or departmental official may be the "authority having jurisdiction."

(c) Code or Standard: a document containing only mandatory provisions using the word "shall" to indicate requirements. Explanatory material may be included only in the form of "fine print notes," in footnotes, or in an Appendix.

NOTE.—Formerly a standard was a document which contained mandatory and advisory provisions.

(d) Labeled: Equipment or materials to which has been attached a label, symbol or other identifying mark of nationally recognized testing laboratory, inspection agency, or other organization concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials and by whose labeling is indicated compliance with nationally recognized standards or tests to determine suitable usage in a specified manner.

(e) Listed: Equipment or materials included in a list published by a nationally recognized testing laboratory, inspection agency, or other organization concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

NOTE.—The means for identifying listed equipment may vary for each testing laboratory, inspection agency or other organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

(f) Manual or Guide: a document which is informative in nature and does not contain requirements or recommendations.

(g) Official: a document prepared by a Technical Committee of the Association which has been presented to and adopted by the Association as an NFPA code, standard, recommended practice, manual or guide.

(h) Recommended Practice: a document containing only advisory provisions (using the word "should" to indicate recommendations) in the body of the text.

(i) Shall: is intended to indicate requirements.

(j) Should: is intended to indicate recommendations or that which is advised but not required.

INDEX

NFPA REGULATIONS GOVERNING TECHNICAL COMMITTEES

REFERENCES ARE TO PARAGRAPH AND SECTION NUMBERS

	Section
Activities of Technical Committees	50
Coordination	54, 55, 57
Documents, content of	53
Documents, type of	52, 161
Meetings (<i>see Committee Meetings</i>)	
Scope of Work	23, 51
Scheduling	56
Amendment of Committee Reports	64, 83
Appeals to Board of Directors	13
Association Meetings, authority of	82
Association Membership	39
Board of Directors (NFPA), authority of	10
Classification of Committee Members	34
Comments on Committee Reports	64, 67, 68, 69, 93
Committee Amendments	65
Committee Documentation	
Comments on Committee Reports	64
Disposition of Comments	67, 68
Publication of Documentation	69
Committee Meetings:	
Attendance at	130
Calling of	120
Notices for	122, 123
Minutes of	143, 144

	Section
Committee Members-----	30
Alternates-----	35
Appointment of-----	31
Association Membership-----	39
Balance of-----	33
Classification of-----	34
NFPA Committee Representative-----	34
NFPA Section Representative-----	34
Nonvoting-----	37
Officers-----	31, 32, 38
Organization Representative-----	34
Personal Members-----	34
Qualifications for-----	33
Restricted Voting-----	36
Committee Officers:	
Appointment of-----	31, 32, 38
Duties of-----	32, 121, 122, 143, 144
Committee Organization-----	40
Committee Responsibility-----	25
Contents of Committee Documents-----	53
Copyrights-----	142
Definitions (terms)-----	160
Disposition of Committee Reports-----	84
Distribution of Committee's Work (<i>see Release of</i>).-----	
Documentation (<i>see Committee Documentation</i>).-----	
Documents:	
Contents of-----	53
Scope & Type of-----	52, 160
Establishment of Technical Committees-----	22
Intercommittee Coordination-----	54, 55
Joint Projects-----	151
Laws & Ordinances-----	57
Life of Committees-----	24
Meetings (<i>see Association Meetings, Committee Meetings</i>).-----	
Official Interpretations-----	110
Editions to Be Interpreted-----	113
Handling of Requests-----	115
Interpretations Subcommittee-----	116
Issuance of-----	117
Nature of-----	112
Procedures for Requesting an-----	114
Time Limit-----	119
Voting-----	117
Organization of Committees-----	40
Organization Representatives-----	34
Personal Members-----	34
Processing Committee Reports-----	60, 80
Association Action-----	82
Association Meetings-----	81, 82
Ballot of Committee-----	62
Comments on-----	64
Committee Documentation-----	69
Disposition of Comments-----	67, 68
No Comments on-----	66
Publication of Documentation-----	69
Publication of Reports-----	63
Submittal of Reports-----	62
Publication of:	
Committee Documentation-----	69
Committee Reports-----	63
Establishment of a Committee-----	22
Interim Amendments-----	102
Official Interpretations-----	117
Request for Technical Committee-----	21
Standards Council Action-----	12

Public comments (<i>see Committee Documentation</i>).....	Section
Reconfirmation of Existing Standards.....	90
References to Other Standards.....	58
Release of Committee's Work.....	140
Copyrights.....	142
Documentation.....	69, 141
Minutes.....	143
Reports.....	141
Scope of (Committee's) Work.....	51
Sectional Committees.....	42
Staff Liaison:	
Appointment of.....	22
Duties of.....	22, 26, 38
Standards Council, Authority of.....	11
(<i>See also Organization and Function of the Standards Council, immediately following this section.</i>)	
Subcommittees.....	43
Submittal of:	
Committee Reports.....	62
Standards by Other Organizations.....	152
Supplementary Regulations.....	150
Tentative Interim Amendments.....	100
Authorization for.....	101
Effective Period of.....	103
Publication of.....	102
Terms (Definitions).....	160
Voting Procedures:	
Amendments at Association Meetings.....	83
Association Meetings.....	81
Ballots (Letter).....	62, 68, 70, 83
Committee Member Commentary.....	77
Disposition of Reports.....	84
Official Interpretations.....	117
Proxy, voting by.....	72, 81
Sectional Committees.....	42
Subcommittees.....	78
Technical Committee Members.....	70
Tentative Interim Amendments.....	101

ORGANIZATION AND FUNCTION OF THE STANDARDS COUNCIL

ADOPTED BY THE NFPA BOARD OF DIRECTORS ON FEBRUARY 5, 1974

1. To provide for the administration of the Association's standards development activities and in accordance with the Bylaws, there shall be appointed by the Board of Directors a Standards Council.

2. The Council shall be responsible for applying the Regulations Governing Technical Committees to the establishment, appointment and administration of Technical Committees of the Association. The Council shall perform those duties association. The Council shall perform those duties assigned by these Regulations and such other duties as may be assigned to it by the Board of Directors.

3. The Council shall consist of nine persons including a chairman, appointed by the Board of Directors, five of whom shall concurrently be Directors of the Association and four of whom shall be members active in or otherwise familiar with the technical and standards development functions of the Association.

4. Members of the Council shall be appointed for two-year terms except that at the first establishment of the Council two of those persons appointed from the Membership at large shall be appointed for a three-year term. Members of the Council may be reappointed but no person shall serve more than six consecutive years thereon.

5. The council shall report to the Board of Directors annually and at such other times as the Board of Directors may require.

6. The Council is authorized to establish time schedules for the preparation and submittal of Technical Committee documents.

PROCEDURES FOR HEARINGS BY THE STANDARDS COUNCIL

Anyone may request a hearing with the Standards Council on matters within the purview of the authority of the Council, as determined by the Council or the Chairman of the Council.

Also, in the course of performing its functions or due to assignments made to it by the Board of Directors, the Council may wish to hold hearings as an aid to its decision making. In such cases the following procedures shall be followed:

1. The Council shall invite those it wishes to attend the hearing and with adequate advance notice so as to reasonably expect affirmative response to its request.
2. In cases where a hearing is requested, the Council shall establish the number of attendees permitted who, in addition to the requestor, shall attend the hearing, and shall satisfy itself of the ability of the attendees to contribute to the discussion.
3. The Council shall establish a time limit for presentation in advance of the hearing.
4. The Council may require an attendee to submit a prepared statement in advance of the hearing and the distribution of the statement shall be at the discretion of the Council.
5. Opportunity for rebuttal shall be provided, within time limits, if such rebuttal is requested.
6. After hearing the attendees the Council may request such additional evidence as it deems necessary for its deliberations and may establish a time limit for receipt of that evidence.
7. Following the hearing, the Council shall adjourn to executive session at which time it may formulate its decision or postpone its decision pending further evidence. The attendee shall be notified promptly of the action of the Council.
8. The Council will maintain a record of the hearing which may be made available to the attendees, on request and at a nominal charge.
9. When, by reason of time or other circumstances, it is not practical for the Council as a whole to act on items 1, 2, 3 and 4 of these procedures, the Chairman of the Council, in concert with such other members of the Council as he may select, and with the Secretary, may make the decisions required by those items.

THE LIFE SAFETY CODE NFPA No. 101

The Life Safety Code had its origin in the work of R. H. Newbern, who gave a report on Exit Drills in Factories, Schools, Department Stores and Theaters to the 1911 annual meeting of the N.F.P.A. The report was published as a pamphlet in 1912.

The Committee on Safety to Life was appointed in 1913. This committee studied notable fires involving the loss of life, and analyzed the causes of this loss of life. The Committee published the pamphlet "Outside Stairs for Fire Exits" in 1916, and "Safeguarding Factory Workers from Fire" in 1918. These pamphlets were widely circulated and put into quite general use.

In 1921, the Committee was enlarged, and began integrating previous publications into a more comprehensive guide known as the Building Exits Code. This Code was published by the NFPA in 1927.

In 1963 the Safety to Life Committee was restructured to include broader representation from all interested parties. Its members have a wide ranging knowledge of fire and the special problems associated with various categories of buildings.

Under this new structure, the committee produced a completely revised 1966 edition of the code, and the code's name was changed to the Life Safety Code. The Code was placed on a three year revision cycle, the most recent edition being 1976.

Code development and revision is the responsibility of the Safety to Life committee. Because of the vast scope of the Code, the Committee on Safety to Life has established eleven standing subcommittees which are responsible for various portions of the Code. These standing subcommittees are made up of personnel who have special knowledge and interest in the particular portion of the Code for which they are responsible. The standing subcommittees are: Administration; Means of Egress; Fire Protection Features; Interior Finish, Furnishings and Decorations; Communication and Extinguishing Systems; Assembly and Educational Occupancies; Health Care Occupancies; Penal Occupancies; Residential Occupancies; Mercantile and Business Occupancies; and Industrial, Storage, and Miscellaneous Occupancies.

The Life Safety Code has been adopted by Federal, State, and local government. At the federal level it is used by the Department of Health, Education and Welfare to evaluate safety in Health Care Occupancies. At the state level, 25 states have adopted the Life Safety Code as law for use in all occupancies, while 43 states have adopted it as law for health care occupancies. Many local governments also use the Life Safety Code.

The Code is designed to provide a reasonable degree of public safety from fire and other like emergencies. The Code covers construction, protection, and occupancy features to minimize danger to life from fire, smoke, fumes, or panic before buildings are evacuated. An important feature of the Life Safety Code is that in general, it applies to both new and existing construction.

Included in the Code are chapters that cover the following topics:

- Administration
- Fundamental Requirements
- Definitions
- Classification of Occupancy
- Means of Egress
- Features of Fire Protection
- Building Service Equipment
- Places of Assembly
- Educational Occupancies
- Health Care and Penal Occupancies
- Residential Occupancies
- Mercantile Occupancies
- Business Occupancies
- Industrial Occupancies
- Storage Occupancies
- Occupancies in Unusual Structures
- Operating Features

The Life Safety Code references other NFPA Codes and Standards where these are required to provide an integrated approach to life safety for the occupants of a building. These reference Codes and Standards are thus considered part of the Code requirements.

The NFPA and the Committee on Safety to Life feel that the Life Safety Code provides reasonable means of protecting building occupants from the effects of fire.

STATE OF CALIFORNIA,
AGRICULTURE AND SERVICES AGENCY,
Sacramento, Calif., July 13, 1977.

NATIONAL FIRE PROTECTION ASSOCIATION, Boston, Mass.

Attention Martin E. Grimes Assistant Vice President, Government Affairs.

DEAR MR. GRIMES: In reaction to Congressman Luken's bill, H.R. 7684, I believe there are some points that must be made regarding the whole concept of federal standards relating to fire prevention and control. The area of public safety encompasses both law enforcement and fire protection. Within the structure of the law enforcement element is the Federal Bureau of Investigation, which represents the highest "police force" in the nation. Its duties and responsibilities, however, rest primarily with enforcement relating to federal crimes. State and local jurisdictions still exercise their prerogatives relative to local crime. I believe the same thing should apply to fire protection. While government has a responsibility to protect one person from the irrational or irresponsible acts of another, and to provide for its citizens a reasonably safe environment, there is the question of which level of government has this responsibility. It is my contention that every level of government holds it to some degree, but the ultimate and final decisions must be with the local community.

Although the single large loss fire incident focuses dramatic attention on the need for safety, it is not this type of loss which comprises the vast majority of deaths from fire. The majority can still be attributed to incidents in one- and two-family dwellings, which occur by the thousands in this country daily. The question really comes down to two major points— (1) whether present laws and regulations are adequate to cover both the kinds of losses that occurred in Kentucky, and those that are occurring each and every day throughout our country; and (2) whether federal preemption or federal intervention is required to moderate these losses.

Looking to the first point, I believe that the laws and regulations in most areas of the country today are probably adequate. What is inadequate, however, is effective enforcement. We must improve enforcement capabilities with well

trained, qualified persons who not only know the law, but are capable of interpreting and applying it in a reasonable manner. In making these judgments, they must take into account all the diverse effects their decisions will have on the occupancies being inspected. This approach, coupled with a concentrated educational effort to convince all facets of our society of the reasonableness of adequate fire safety precautions, is a must. There is a need to overcome the inability of jurisdictions to enforce the law and the unwillingness on the part of those affected to comply. The greatest thrust, it seems to me, should be toward convincing the public of the reasonableness of the law so that we might get more voluntary compliance.

The State of California, under a grant by the National Fire Prevention and Control Administration, has only recently completed a five-year master plan for fire education and training. The purpose of this plan, its stated objective, is "to develop in all of the citizens of California the fire protection and safety skills and knowledge *each* must have in order to ensure that our fire prevention and control system functions as effectively as possible." The plan is for every citizen and it calls for a re-examination of public attitudes, life styles, and many deep-seated social values. It is my understanding that the NFPCA will disseminate this plan as part of a model for nationwide use (an appropriate role for the federal government).

In regard to regulatory action, federal preemption obviously has a place. I believe Washington has a rightful and necessary role in controlling those products which cannot be effectively governed by either state or local jurisdictions and which have some effect on interstate commerce. When fire protection becomes entangled with interstate commerce—as in the case of flammability standards for clothing, for fabrics, for upholstery, for furnishings, for fireworks and explosives—then I think there is a definite need for federal preemption. As an example, flammability standards for children's sleepwear present unreasonable demands on a state-by-state basis. Yet federal standards provide not only safety for the nation's children, but do so in a way that the sleepwear industry can meet with no great difficulty. In addition, federal restrictions on firecrackers have been of great benefit to local communities in ceasing the interstate traffic in these dangerous items. But beyond areas like these, I believe that state and local communities can best handle problems for themselves.

In California, the State Fire Marshal has developed minimum standards for places of public assemblage for the entire state that I feel are more than adequate. In fact, they generally exceed those of other states. Our fire safety standards for health care facilities parallel or exceed those adopted by the federal government (e.g., NFPA 101 Life Safety Code) as do our standards in places of employment (CAL/OSHA). But sweeping federal involvement in fire safety standards would not allow local and state recognition of unique problems, such as weather, terrain, earthquake potential, etc. In addition, such involvement may not recognize the outstanding abilities of local fire departments or local fire safety programs.

Further, in contrast to the national records, California suffers a life loss from fires which equates to less than one-half of the national figures. If the federal government were to establish minimum standards to upgrade other areas of the country which have lesser requirements at this time, such action might tend to downgrade California's standards. Whether or not it is proper or legally correct, minimum standards established by a high level of government inevitably have a way of becoming maximum standards.

Fire protection is ultimately a responsibility or a matter of local control. The federal government, and even state governments, can best assist this local effort by increasing the availability of resources, by affecting new innovations, by presenting for local use the kinds of techniques that are effective in other areas of the country. The National Fire Prevention and Control Administration has taken the first steps in this by the development of the Master Plan concept for local communities, by its continuing work in the National Fire Academy, and by its sponsorship of model programs as mentioned earlier.

By making an adequate assessment of where our losses occur and who is responsible for them, we will be able in the future to develop meaningful and effective programs to increase the awareness and sensitivity on the part of all of our citizens, to give them the knowledge of what to do in times of fire, and lastly, to ensure that they behave correctly when a fire occurs. Until we, as a society, assume this direct citizen responsibility for fire defense, we can expect to continue to pay more than we can afford for our community fire losses.

Sincerely,

PHILIP C. FAVRO,
State Fire Marshal.

Mr. LUKE. Proceed in any order you wish.

STATEMENT OF JACK C. SANDERS

Mr. SANDERS. I do have a prepared statement. I will stick pretty close to it.

Mr. LUKE. Would you identify yourself for the record?

Mr. SANDERS. Jack C. Sanders, State fire marshal for the State of Oklahoma.

There may be some duplication in my paper as to what Mr. Grimes said with regard to the letter from the California fire marshal, but the papers were developed independently for the express purpose of expressing ourselves as individuals. So if we say the same thing, then that is the way we feel.

Oklahoma, like many other States, has adopted into law a variety of NFPA fire codes dealing in a wide range of fire safety problems that we have identified in our State. The most important codes, of course, are those regulating the areas where people live, work, play, dine, worship, or otherwise assemble.

The consensus codes of NFPA are developed by balanced committees of experts in their respective fields coming together on a voluntary basis and in the common interest of fire safety. This system has been turning out fire codes of proven quality for over 50 years.

Oklahoma has been using the NFPA fire codes as State law for 12 years and the codes have served us well. They have withstood the test of legal challenge and the prestige and integrity of NFPA has served to lend credibility to our fire safety laws.

The fire marshals of America are encouraged that Congress is interested in the fire problem. We are encouraged by this hearing and grateful for the opportunity to express our views on the fire problems in America.

I believe the Federal Government has a major role in reducing our fire losses and I only hope the Federal resources will be channeled in the most effective direction. To be specific, I offer the following suggestions for the benefit of this hearing.

I do not believe the Federal Government should develop and enforce a national fire code.

I do believe:

1. The Federal Government should continue and accelerate the programs to control those products involved in interstate commerce, such as the flammability standards for clothing, furniture, fabrics, fireworks, explosives—continue research projects at the National Bureau of Standards.

2. The Federal Government should finance and promote public fire safety education—code enforcement is made more difficult because the public in general has little or no appreciation for what the particular fire code can do for their personal safety. A vigorous public education program on fire safety by the Federal Government has great potential for assisting our fire loss reduction effort.

3. Training of local fire code enforcement personnel—America is desperately short of technically trained code enforcement people. We have concentrated our efforts in training fire suppression personnel, and frankly, the training programs for code enforcement have been

too long in coming. We see some improvement in this situation, and here is an area where the Federal Government can strike a resounding blow for fire safety by assisting our local training programs.

The Federal Government has the mechanism for providing these supporting programs:

1. The National Bureau of Standards for testing, and fire research.
2. The National Fire Prevention and Control Administration for the delivery of public education—training programs for code enforcement personnel.

We respectfully request that you give those of us who have spent the majority of our lives in the fire safety field, credit for knowing something about the fire problem and also something about possible solutions.

We ask that you not develop "tunnel vision" as a result of the occasional catastrophic fire loss; as devastating and shocking as they may be, it is the unrelenting, uncontrolled fires that happen every hour of every day that are claiming 12,000 lives a year—not to mention the thousands that are scarred and maimed for life. In looking for solutions to reducing our fire losses, let us look at the full picture, and not just concentrate on the spectacular or catastrophic incident.

A national fire code developed by the Federal Government and imposed on the Nation by Federal enforcement officers would be totally unacceptable to the public, and in my opinion, it would be ill advised for Congress to pursue this course of action.

Code development in America is far ahead of enforcement capability. The fire loss problem cannot be attributed to the lack of codes or to the quality of the codes. The problem lies directly on our reluctance or our inability to vigorously apply the codes.

What is needed to get results is local code enforcement personnel in sufficient numbers, trained to apply these documents, and local government officials who can appreciate the consequences of not properly applying the codes.

MR. LUKEN. Sir, if we had had, say, in the last 10 years a Federal fire code that required smoke detection devices in all dwellings, regardless of the enforcement, don't you think that would have saved lives?

MR. SANDERS. I think it quite likely would have saved lives. My particular agency, in my State, at the last session of the State legislature, proposed a bill requiring smoke detectors in all new residential occupancies. But I will also respect the right of my State legislature to reject that bill. It was against my wishes and against my better judgment, but nevertheless, that is their prerogative. I will be back.

MR. LUKEN. What was against your wishes?

MR. SANDERS. Rejecting their bill.

MR. LUKEN. They rejected it?

MR. SANDERS. Yes, sir. So my answer to your question is certainly I felt very strongly that we needed this kind of a law; I still feel that way. But I also respect the right of the legislature to make the law.

MR. LUKEN. But in view of all the questions that you have heard, do you agree it would be a good idea to make a thorough study of just what the Federal involvement should be?

MR. SANDERS. Mr. Chairman, as I stated—

MR. LUKEN. Or do you feel so strongly that you don't want to even consider it?

Mr. SANDERS. No, sir; I am delighted to be here, I appreciate being here, and I am delighted to see your interest in this. I think something good will come out of it. I commend you for conducting this study and would support you in any way that I possibly could.

Mr. LUKEN. Thank you. Do you have any questions?

Mr. DARROW. Yes; we have a couple of questions. We would like to draw on the expertise of some of the other NFPA representatives here today. These questions are addressed generally to the panel, but to be referred to the appropriate person, Mr. Sharry or Mr. Stevens.

Could you please describe for our benefit the relationship between the model building codes and the life safety code?

Mr. STEVENS. Of course, the model building codes—and there are four of them, basically—

Mr. DARROW. Right.

Mr. STEVENS. Three of them are written by organizations of building officials, and one of them is written by the American Insurance Association. There is no direct relationship between them and the Life Safety Code per se because the Life Safety Code is written by an NFPA technical committee and goes through NFPA procedures for standards making.

Now, there have been over the last 30 years studies made of the differences between the model codes and the Life Safety Code, and recommendations made to all the involved organizations for improving the uniformity between the codes and all of this sort of thing. But in the final analysis, of course, in our case the decision lies with the association when it acts on the recommendations of the committee.

If the committee agrees with the recommendation that comes out of the organization that looks for uniformity, then it goes forward to the association. They may or may not agree.

Mr. DARROW. Let me rephrase the question briefly. It is not that you are not being responsive but that I did not make myself clear.

We have heard people this morning explain to us that the life safety code bears some resemblance to a model building code in some of its requirements, evidently applying to things such as internal design. It mandates or establishes certain practices and standards that bear a close resemblance to their counterparts in the life safety code.

Does that mean that States adopt the life safety code as a supplement to, or substitution for, model building codes? There is a relationship here that we would like to talk about.

Mr. STEVENS. I would say if a State adopts one of the national model codes and the life safety code one would supplement or complement the other, depending on how you want to put it and how the law is written with the State. There could be differences between them again, depending on how the law is written. Generally they say that the more stringent one shall apply if there are differences.

Mr. DARROW. Are there significant differences between the requirements of the life safety code with respect to construction standards and internal design and all or any one of the four model building codes?

Mr. STEVENS. The life safety code does not have any construction standards per se. The design is only governed by exit design, means of egress, for example—

Mr. DARROW. Right.

Mr. STEVENS. And that kind of thing. The life safety code deals with anything that relates to life safety. We do not deal with anything—

Mr. DARROW. Let me be more specific.

Do the requirements with respect to exits and egress in the life safety code differ in any material fashion from provisions in any one or all of the model building codes?

Mr. STEVENS. I would not say in material fashion, but in minutia, yes, as the life safety code might say that the maximum height of a riser and stair cannot be more than 8 inches and the building code would say 9 inches.

Mr. DARROW. If I were a Governor of a State which has adopted a model building code, what argument would there be for me to adopt the life safety code in addition?

Mr. STEVENS. The life safety code goes beyond the model building code, in that it gets into operating features, employee training, this sort of thing that the building codes do not.

Do you want to speak to other things that the life safety code gets into?

Mr. SHARRY. The orientation of the life safety code is just that, for the protection of persons in buildings.

Mr. DARROW. Right.

Mr. SHARRY. Any one of the model building codes is dealing with many, many things, dealing with the structural requirements so it will not fall down, those kinds of things. Life safety code is strictly oriented to protecting the people in the building, providing them a safe path of travel to areas of safety or outside.

Mr. DARROW. Is the life safety code in its adoption by the State retroactive in its effect?

Mr. SHARRY. The life safety code does have applications to both new and existing facilities; that is correct.

Mr. STEVENS. It is the only code that does.

Mr. DARROW. Has it been your experience that the life safety code, where it has been adopted, like Kentucky, has been successfully applied retroactively?

Mr. SHARRY. I know where it has been successfully applied; I know of instances where it has been. I cannot say in every case where it has been made into State law that it has been.

Mr. DARROW. The only reason I ask is that your association has extensive contacts with your members and with fire marshals throughout the Nation, and probably no one in this country has more access to expertise, to provide some feedback whether or not in those instances where the life safety code has been adopted it is effectively or adequately enforced with respect to preexisting buildings.

Mr. STEVENS. Maybe a good example of that is the fact that in 1971 Congress passed a bill which mandated this code for all Federal facilities receiving medicare and medicaid. Now that meant that HEW had to go back to all existing facilities, and they have done just that and enforced it, because there is a whole chapter on existing health care facilities.

Mr. LUKEN. HEW has the inspector to do the job?

Mr. STEVENS. They relegate it to States—

Mr. SANDERS. In most cases they do follow up service but do not do the inspecting themselves.

Mr. LUKEN. The State does?

Mr. SANDERS. No; HEW does not.

Mr. LUKEN. HEW does not, but does the State do it at HEW's request?

Mr. SANDERS. That is right.

Mr. LUKEN. Are the inspections actually made?

Mr. SANDERS. The inspections are actually made by contract with the various State agencies, State fire marshal agencies, and in many cases State health departments have employed people to do it where fire marshal agencies were not capable.

Mr. LUKEN. And a nursing home which has medicare and medicaid patients has that protection, and the nursing home in a State that doesn't have this code in effect does not have it?

Mr. SANDERS. This code is in effect in any State and every State that is part of the medicaid-medicare program.

Mr. LUKEN. Precisely. But in the 17 States or whatever it is that do not have this life safety code, where the patients are not medicare and medicaid, they don't necessarily have that protection.

Mr. SANDERS. That is correct.

Mr. LUKEN. These are the kinds of problems we want to take a good look at.

Mr. GRIMES. Unless the State has adopted a law that applies it to them, which some of the States have done.

Mr. LUKEN. They may have another code which is close to being equivalent—but may not be, as well.

Mr. GRIMES. Whereas this may be applied in medicare and medicaid premises under the law of the Federal law, a State may adopt it for other premises if they so license them any other way.

Mr. DARROW. I have one other question, Mr. Sharry. Would you briefly describe the life safety code requirements concerning sprinkler systems in public assembly halls?

Mr. SHARRY. I am not sure it can be done briefly. Essentially places of public assembly in general do not require sprinklers under the life safety code. The life safety code does specify certain construction requirements for the protection of the occupants in certain classes, which classes of places of assembly are determined by the number of people that are allowed. Within that parameter, we say that if you follow the life safety code under those conditions, sprinklers are not required. However, should you vary from that, meaning should you put places of assembly at a higher floor, lower floor, or in other fashion varying from the strict requirements, then automatic sprinklers are required as a compensating item.

Mr. DARROW. Without straining your expertise, or going into excessive detail, could you describe some of the conditions that exempt a building from the requirement?

Mr. SHARRY. Yes; if it were a completely fire-resistive building you could have a place of assembly in any place or location in that building aside from a subterranean floor and automatic sprinklers would not be required.

Mr. DARROW. You will have to excuse my ignorance; I am a layman on this subject, but does a fully fire-resistant building mean that if we dump gasoline on the floor and lit it, it won't burn?

Mr. SHARRY. It implies the type where major structural components of the building will not burn, in fact, are noncombustible

and have been protected in some fashion against fire failure for a certain number of hours.

Mr. DARROW. Are rugs considered to be a major structural component?

Mr. SHARRY. No.

Mr. DARROW. What about ceiling tile?

Mr. SHARRY. Not necessarily; no.

Mr. DARROW. What about certain kinds of wall finishes?

Mr. SHARRY. No; but those are all dealt with in other places in the code, which do put requirements on those items.

Mr. DARROW. So in the absence of a building being fully fire resistive as defined by the code, what are some of the other requirements? What are some of the other conditions that would exempt you from—

Mr. SHARRY. I could read you the list:

In buildings of heavy timber protected noncombustible, protected ordinary and protected wide-frame construction, a class A, B, or C place of assembly shall be permitted at the level of exit discharge.

Meaning if you were to have a place of assembly of 300 or more and you wanted to put it on floor 2 or in the basement, the only way would be to provide automatic sprinklers. What we are doing here is allowing you to put people in a building at ground level where they could easily make their way out of the building, and we feel it is reasonably safe for those persons. In any other location than that, we would suggest as a compensating feature automatic sprinklers. The same holds true for class C, and noncombustible construction.

Mr. DARROW. Square footage requirements differ between classes of assembly?

Mr. SHARRY. Not square footage requirements; no.

Mr. DARROW. The number of people.

Mr. STEVENS. If you took the first story and closed up the windows, you have to sprinkler.

Mr. DARROW. A windowless building under the life safety code has to be sprinklered?

Mr. SHARRY. If it has occupancy of 100 or more.

Mr. SANDERS. Please do not misconstrue the fact a lot of things are being omitted here that are not required. You understand that.

Mr. DARROW. I am not trying to oversimplify but trying to get some clear notion of exactly what the conditions are.

Mr. STEVENS. You have a fire-resistant building and you want to put an assembly occupancy on the 33d floor, but the interior finishing requirements, ceiling tile, or whatever, do not meet the requirements of the code, you have two choices. You can tear out the interior finish and replace it or sprinkle it, provided the interior finish that is there doesn't have a flame-spreading rating over 200. You can go one class higher with interior finish if you sprinkle it. It is kind of an alternate give-and-take situation.

Mr. DARROW. I have no further questions.

Mr. LUKEN. Thank you very much for your presentations. They have been most helpful to the committee. We will be in recess 5 minutes while we vote.

[Brief recess.]

Mr. LUKEN. This session will resume then.

Mr. Bruce Trant, of the Council of American Building Officials, and Mr. John L. Jablonsky, assistant vice-president for engineering and safety, American Insurance Association. We have Mr. Jablonsky's statement, and, without objection, it will be included in the record.

And we have Mr. Trant's statement, and, without objection, that will be included in the record.

Either one of you may proceed now as you wish.

STATEMENTS OF BRUCE S. TRANT, EXECUTIVE DIRECTOR, COUNCIL OF AMERICAN BUILDING OFFICIALS, AND JOHN L. JABLONSKY, ASSISTANT VICE PRESIDENT, ENGINEERING & SAFETY, AMERICAN INSURANCE ASSOCIATION

Mr. TRANT. Thank you. I believe I would like to cover most of the statement in the presentation.

Mr. LUKEN. You may proceed in any manner you wish. Since we are getting close to the time when I have to catch a plane, I would like to leave in about half an hour, so if you would be guided accordingly I can get home this weekend.

Mr. TRANT. I won't hold you long.

Mr. Chairman, and members of the subcommittee, I want to thank you for allowing me to testify on this Fire Prevention Study Act of 1977.

I am Bruce S. Trant, executive director of the Council of American Building Officials. The Council of American Building Officials is a federation of the three major model code organizations; Building Officials and Code Administrators, International (BOCA), International Conference of Building Officials (ICBO) and Southern Building Code Congress, International (SBCC).

The model code organizations, whose members are State and local governments, for the past half century have developed and maintained model codes for buildings and more recently fire prevention codes. These are minimum acceptable standards which are kept current by an amendment process which is open to anyone who wishes to participate. These codes are available for use in all parts of the country and are adopted by cities, counties, towns and States to protect health, safety, and welfare. Twenty States have adopted codes, most using one of the model codes, and have made them mandatory for all jurisdictions. Other States have made them apply only to areas that do not now have codes in effect, with voluntary acceptance in other jurisdictions.

We agree with the first finding that fire takes a huge toll each year; we don't believe that there is indifference toward fire prevention and control. There is certainly no indifference on the part of the local and State officials or on the agencies that have testified here today; lack of resources, we agree, on the part of both the ultimate consumer and local and State governments. Greater Federal involvement may be necessary to provide adequate resources; however, we suggest that these resources would be better expended on an awareness program and education of the public to make them alert to the true hazards of fire and the necessity for installing early warning and protective devices.

We do not oppose a study relating to fire prevention and control standards provided a totally objective approach is taken and the opportunity is provided to the model code organizations and other regulatory agencies to reflect their views and to provide input into the study. Those involved in the promulgation and enforcement of codes and standards can provide information and guidance.

We do object to the provisions established in this bill that list the requirements by which the study would be made. Many of the provisions are already covered in the National Fire Prevention and Control Act (Public Law 93-498). The National Fire Data System established by NFPCA should readily provide information on the extent that fires have been caused by interior finish. The administrator of NFPCA now has the authority to review State and local codes and suggest improvements. The act does not establish a time frame for completion of the review, but requires an annual report of the progress.

The provision to determine whether it is necessary and feasible for the Federal Government to establish and administer a Federal fire prevention and control code should end with that statement and the remainder of the section deleted. This would have the effect of requesting an objective study.

Very little can be written in a code that is now already available in existing codes promulgated by the private sector. Duplication of existing codes and regulations by the Federal Government would produce an expense to the taxpayers that is now borne by private enterprise. The development and maintenance process used by the model code groups involves those who use and enforce the codes; their knowledge and expertise in these matters would be difficult to obtain elsewhere. It would be almost impossible to have this input from the grassroots level in the establishment and administration of a Federal Government code. The requirements of the Secretary of Commerce in carrying out the study appear to have a preconceived conclusion; that it will be necessary and feasible to establish a Federal code. Since there are requirements to determine the manner in which the code should be established and administered and the type of buildings, facilities, and other structures which would be subject to the provisions of this code; we oppose these provisions as a part of this bill.

Mr. LUKEN. Could you be a little specific about that? How does the bill determine the manner in which the code should be established and administered? If it does, I will be glad to take those provisions out. It wasn't my intention in drafting the bill.

Mr. TRANT. Well, on item b(3), it says:

Determine whether it is necessary and feasible for the Federal Government to establish and administer a Federal fire prevention control code and determine the manner in which any such code should be established and administered.

Mr. LUKEN. That is what the study would investigate. But this bill would only authorize the study.

Mr. TRANT. I say we are not opposed to a study.

Mr. LUKEN. That is all the bill does.

Mr. TRANT. But there are certain things in the latter part of these provisions that appear to us that they are directing certain conclusions be drawn.

Mr. LUKEN. Well, I am not sure I understand it.

Determine whether it is necessary and feasible for the Federal Government to establish and administer a Federal fire prevention control code and determine the manner in which any such code should be established and administered.

It is the intention that all of that should modify "necessary and feasible." It is not intended that this passage of this bill, if it were passed, would determine the manner in which any such code should be established and administered. Are you differing with the language, or are you opposed to any bill which sets up a study?

Mr. TRANT. No; I am not opposed to the study. I said that. I believe you were out of the room at the time I made that part of the statement. We do not oppose the study. But there are provisions in here that we think—for instance, 5(a) says:

Whether the provision of any such Federal fire prevention code should require other structural changes or alterations in existing buildings in order to achieve compliance with the provisions of the code.

Mr. LUKEN. Again, you are only reading the (a) part, but the 5 part says "study whether the provision of any such Federal fire prevention control" should require any structural changes, and so on.

Mr. TRANT. All right; but if you studied whether it was feasible and necessary to have a code and that answer came back negative, then the establishment and administration of that code would be an unnecessary part of the study.

Mr. LUKEN. If the answer comes back negative, and the Congress follows the answer, then there would be no change in existing law; right?

Mr. TRANT. Yes. But what the bill, as I read it and understand it, and I probably am not real good at reading bills sometimes——

Mr. LUKEN. You are just as good as we are, and we are certainly capable of making mistakes, but if we have the same intention, let's try to agree on it rather than have a difference of words.

The only intent of the bill is to set up a study, and I think we all know pretty much what that would be, I think. At least the preceding witnesses, I think, agree that we can just take a look at the whole situation with regard to codes and what the Federal involvement should be: As I say, whether it should be a full loaf, half a loaf, or quarter of a loaf, or none would be determined by the study. There could be all kinds of variations, including maybe some we haven't thought of. I think that is the point—that there may be some involvement, such as there is in the Flammable Fabrics Act and other areas, that might be generally approved by almost everyone, even those who are violently opposed to any Federal intrusion at all.

Incidentally, we will hold the record open, and if you would like to submit suggestions, either in the form of a bill, or just suggestions as to the language of a study you would approve, we would be glad to take a look at it.

Mr. TRANT. All right.

To require the provisions listed in an initial study would be extremely costly and have limited cost-effectiveness. Some of the retroactive requirements suggested could result in astronomical cost to building owners, consumers, and local and State governments. If there are people in the Federal Government who have more knowledge and expertise than those that are now involved in the system—why aren't

they now participating if government is to live up to its charge of serving those who are governed.

This bill would produce a further intrusion of the Federal Government into private enterprise, as well as usurping duties that have been the responsibility of local and State governments.

We urge that H.R. 7684 as now proposed not be enacted. Thank you.
[Mr. Trant's prepared statement follows:]

STATEMENT OF BRUCE S. TRANT, EXECUTIVE DIRECTOR, COUNCIL OF AMERICAN BUILDING OFFICIALS

Mr. Chairman and members of the subcommittee: I am Bruce S. Trant, Executive Director of the Council of American Building Officials, which is a federation of the three major model code organizations; Building Officials and Code Administrators, International (BOCA), International Conference of Building Officials (ICBO) and Southern Building Code Congress, International (SBCC).

I want to thank the committee for permitting me to testify on the Fire Prevention Study Act of 1977.

The model code organizations, whose members are state and local governments, for the past half century have developed and maintained model codes for buildings and more recently fire prevention codes. These are minimum acceptable standards which are kept current by an amendment process which is open to anyone who wishes to participate. These codes are available for use in all parts of the country and are adopted by cities, counties, towns and states to protect health, safety and welfare. Twenty states have adopted codes, most using one of the model codes, and have made them mandatory for all jurisdictions. Other states have made them apply only to areas that do not now have codes in effect, with voluntary acceptance in other jurisdictions.

We agree with the first finding that fire takes a huge toll each year; we don't believe that there is indifference toward fire prevention and control. There is certainly no indifference on the part of the local and state officials or the National Fire Protection Control Administration, or the National Bureau of Standards; lack of resources, we agree, on the part of both the ultimate consumer and local and state governments. Greater federal involvement may be necessary to provide adequate resources; however, we suggest that these resources would be better expended on an awareness program and education of the public to make them alert to the true hazards of fire and the necessity for installing early warning and protective devices.

We do not oppose a study relating to fire prevention and control standards provided a totally objective approach is taken and the opportunity is provided to the model code organizations and other regulatory agencies to reflect their views and to provide input into the study. Those involved in the promulgation and enforcement of codes and standards can provide information and guidance.

We do object to the provisions established in this Bill that list the requirements by which the study would be made. Many of the provisions are already covered in the National Fire Prevention and Control Act (PL 93-498). The National Fire Data System established by NFPCA should readily provide information on the extent that fires have been caused by interior finish. This uniform reporting system so ably set up by NFPCA is reportedly beginning to produce accurate and useful data. The administrator of NFPCA now has the authority to review state and local codes and suggest improvements. The Act does not establish a time frame for completion of the review, but requires an annual report of the progress.

The provision to determine whether it is necessary and feasible for the federal government to establish and administer a federal fire prevention and control code should end with that statement and the remainder of the section deleted. This would have the effect of requesting an objective study.

Very little can be written in a code that is not already available in existing codes promulgated by the private sector. Duplication of existing codes and regulations by the federal government would produce an expense to the taxpayers that is now borne by private enterprise. The development and maintenance process used by the model code groups involves those who use and enforce the codes; their knowledge and expertise in these matters would be difficult to obtain elsewhere. It would be almost impossible to have this input from the grass roots level in the establishment and administration of a federal government code. The requirements of the Secretary of Commerce in carrying out the study appear to

have a preconceived conclusion; that it will be necessary and feasible to establish a federal code. Since there are requirements to determine the manner in which the code should be established and administered and the type of buildings, facilities and other structures which would be subject to the provisions of this code; we oppose these provisions as a part of this Bill. If a study proves a code is necessary and feasible then criteria could be established; however, to establish and require the provisions of this Bill dilutes the main thought of the Bill to consider whether it is necessary and feasible to establish a federal code. To require the provisions listed in an initial study would be extremely costly and one which would have limited cost effectiveness. Some of the retroactive requirements suggested could result in astronomical cost to building owners, consumers, and local and state governments. If there are people in the federal government who have more knowledge and expertise than those that are now involved in the system—why aren't they now participating if government is to live up to its charge of serving those who are governed.

This Bill would produce a further intrusion of the federal government into private enterprise, as well as usurping duties that have been the responsibility of local and state governments. As we have said, most of the provisions in the Bill are already covered in the National Fire Prevention and Control Act. Funding for administering these provisions and an enlargement of the educational program started at the Fire Academy to include programs on a national level to reach the general public on the true hazards of fire and of fire prevention methods and devices available may result in a reduction in loss of lives and property from fires.

We are very interested in reducing injuries and loss of life and property from fire but do not feel that this Bill is the proper mechanism.

We urge that H.R. 7684 as now proposed not be enacted.

Mr. ECKHARDT [presiding]. Mr. Jablonsky, will you give your testimony, then we will have questions for both you and Mr. Trant.

STATEMENT OF JOHN L. JABLONSKY

Mr. JABLONSKY. Mr. Chairman, and members of the committee I will read my prepared statement, but several comments were made today, and I think I can clarify them in my statement, so I will stop at those points.

My name is John L. Jablonsky, assistant vice president, engineering and safety service, of the American Insurance Association. Subscribers to our engineering and safety service number over 200 insurance companies that write property and casualty insurance. These companies are vitally interested in preventing the loss of life and property through disastrous fires. We consider it a distinct privilege to appear before you today to present the views of our association.

Insurance companies have long been leaders in the fire prevention and protection field. It is conservatively estimated that insurance companies employ over 8,500 engineers in the field of fire protection and safety, and that we spend over \$200 million annually in providing total loss control services to industry and the general public. In fact, 70 percent of all safety professionals in this country work for insurance companies. That is one point that was brought up this morning, and I would like to clarify it a bit. That is not 70 percent of fire protection people, but 70 percent of fire protection and safety people. The insurance industry is no longer a fragmented industry where you have just fire people or just safety people or just industrial hygienists. We have, for a number of years now, incorporated our efforts toward a total loss control system, and we hire loss control people with many backgrounds, and so that 70-percent figure covers the entire scope.

The technical staffs of our engineering and safety service and our subscriber companies cover a multiple of disciplines, including civil engineering, mechanical engineering, chemical engineering, safety en-

gineering, and fire protection engineering. Our engineering and safety service works closely with subscriber companies in support of their fire safety efforts and in developing technical materials to accomplish this end.

The 11,500 lives and the over \$4 billion in property lost annually to the thousands of destructive fires in the United States should be unacceptable to all of us. But the loss would have undoubtedly been greater over the years without the constant efforts of the insurance industry in curbing this wanton waste of human effort.

The beginning of organized insurance fire control activities took place on July 18, 1866, when the National Board of Fire Underwriters was created. This organization for the next 100 years was destined to become a leader in the battle against fire. The efforts of this organization were soon focused on fire prevention. In 1873, the president of the national board observed that "with the exception of New York, no large city had laws on the books that even remotely provided for the erection of buildings that would resist fire and even in New York the building law was administered feebly." He proposed that the National Board of Fire Underwriters take on the job of pressing for laws that would help prevent fire.

After disastrous conflagrations in New York, Seattle, and Spokane, Wash., and Lynn and Boston, Mass., in 1889 the national board hired experts to examine the conditions and requirements of fire departments throughout the country. This was the beginning of a municipal survey service, which still exists under the insurance services office, whereby all aspects of public fire protection, including fire department, water supply, and fire safety control, are evaluated. A few years later, the national board approached President Benjamin Harrison and Congress, to the end that fire prevention might be made a matter of national concern by means of a Federal Government investigation of fire causes, building construction, and regulation of special hazards.

At about this time, a technical conference was held with a committee of architects, builders, and fire protection engineers. From this came the "National Building Code" of the National Board of Fire Underwriters, the first model building code in the Nation. This code, as periodically revised, is still used by more than 1,800 communities throughout the country.

Meanwhile, a group of insurance underwriters formulated "Standard Electrical Rules" which was the forerunner of the widely used "National Electrical Code" to govern the safety of all electrical installations.

A one-room testing laboratory set up by midwestern insurance underwriters to test electrical installations in 1893 grew into Underwriters Laboratories, Inc., which now operates as an independent scientific test facility with over 2,000 engineers and technicians.

Realizing the need for a broad-based organization to develop standards in fire prevention, a group of technical men from the insurance industry formed the National Fire Protection Association. This was the beginning of "NFPA," an internationally recognized standards producing organization.

With these basic beginnings, the services of the insurance industry spread widely to serve the entire Nation in the form of fire prevention campaigns, development of codes and standards, printing of technical booklets, arson investigation, preparation of fire service training

material, and consultation with governmental agencies to name only a few. Fire rating bureaus across the Nation, each staffed by qualified engineering personnel, contributed to the overall fire effort. The American Insurance Association's recommended "Fire Prevention Code" was first published in 1930 and has since been adopted by more than 3,800 municipalities and 7 States.

In 1965, the American Insurance Association was formed by combining the engineering talents of the National Board of Fire Underwriters and the Association of Casualty and Surety Companies, resulting in a broad program of multiline engineering service dedicated to the prevention of life and property loss.

As was mentioned, the American Insurance Association promulgates the National Building Code and a Fire Prevention Code. A brief review of the procedures followed in the development of these codes is in order, as they differ from those used by most other model codes.

Amendments or revisions to the National Building Code are made whenever it is determined that provisions of a major section need changing. A draft of the complete revised section is prepared and sent to interested parties, including professional and trade associations, governmental officials, and a committee of the American Institute of Architects, for review and comment. After comments are received, they are evaluated by members of our staff. Depending on the nature of the comments, we may refer them to a Fire Protection Committee or to the Building Construction Committee of our Advisory Engineering Council, or discuss it with a representative of the committee that has developed a related nationally recognized standard. When the revised provisions of the section are finalized, copies are made and notices sent to municipal and State officials, informing them that a revised section or a complete revised code is available. In addition, a news release is sent to publishers of architectural, structural, and other technical magazines.

We accept proposed changes from anyone. We especially encourage enforcing officials to submit their suggestions. When we receive a proposal from the manufacturer of a product, we encourage submittal through their trade association.

Building regulations encompass three major fields: safety to life, structural soundness, and fire protection features of buildings. The provisions of the National Building Code concerning safety to life are in general conformance with the Life Safety Code published by the National Fire Protection Association. For those provisions concerned with a structurally safe building, there are the nationally recognized design standards, such as ANSI A58.1, "Building Code Requirements for Minimum Design Loads in Buildings and Other Structures," and standards of nationally recognized associations, such as the American Institute of Steel Construction, which can be used or adopted by reference. Provisions for fire protection are developed through correspondence and conferences with fire protection engineers from within and from outside of the insurance industry, and also after study of nationally recognized standards of the National Fire Protection Association. We also are in constant contact with code-enforcing officials and offices of the fire service for assistance.

For the preparation of other provisions in a balanced building code, we utilize standards of the American National Standards Institute, American Society for Testing and Materials, National Forest Products Association, American Concrete Institute, and others.

Development of the Fire Prevention Code follows a generally similar procedure except that considerable reliance is placed upon standards of the National Fire Protection Association.

For more than a decade we have participated in hearings and discussions concerning the desirability of a single nationwide building code or, indeed, a Federal building code.

We don't believe that it is very likely that a single nationwide building code will be developed, at least in the near future. Fairly good code uniformity on matters concerning structural design, electrical installations, habitability, plumbing, and similar items is quite possible, and in many cases is already standardized. But when the subjects of fire and life safety are discussed, it is rare when two individuals or organizations will completely agree; there are bound to be differences of opinion—probably because fire protection and life safety, unlike structural design, cannot be calculated by some formula or specifically determined by some test. Fire protection and related life safety, in this sense, are more "art" than "science." Until our technical knowledge of fire and life safety is strengthened, it will be virtually impossible to reach the uniformity necessary to develop a nationwide code.

Mr. LUKEN. Could I interrupt at this point?

Mr. ECKHARDT. Yes, Mr. Luken.

Mr. LUKEN. It seems in that last paragraph you have described what this bill is all about. Namely, you have described the variations, the divergences in the codes, and the problems that exist in studying the necessity of a standardized code, the problems of enforcement and definition.

Wouldn't a study really be helpful in furthering our knowledge in these areas, or are you saying that the existing agencies, existing sources of information and institutions, are the only ones who can be effective in this area?

Mr. JABLONSKY. I think the mechanism is already in place to do what you mentioned. The National Fire Prevention and Control Administration, as one of its charges, has the problem of getting more test data, getting more tests for us. Dr. Lyons, of the National Bureau of Standards, who was here this morning—

Mr. LUKEN. He testified today that he doesn't have the money to do that now.

Mr. JABLONSKY. Well, we have been requesting of the Federal Government for a number of years now to develop these programs. The need for these programs in this new testing and research, I think, is well established, and we don't feel another study to establish that at this time is necessary. Possibly we are jumping the gun. We would rather see the ball get rolling than to study whether or not we need the ball game.

Mr. ECKHARDT. Mr. Luken, will you yield for a moment at this point?

Mr. LUKEN. Yes, I yield.

Mr. ECKHARDT. They don't have any regulatory authority, do they?

Mr. JABLONSKY. The Fire Prevention and Control Administration?

Mr. ECKHARDT. Yes.

Mr. JABLONSKY. No. What we are looking for from them is more information.

Mr. ECKHARDT. Do they consider the question of the desirability of certain Federal authority in this area, or do they just look into the technical questions involving fire control?

Mr. JABLONSKY. To my knowledge, they are looking into the technical questions, the educational questions of training these people, the support of the various fire-related organizations, but nothing on the enforcement end of it.

Mr. ECKHARDT. When you suggest that we should not have a study because it would duplicate the functions of the NFPCA, it would only duplicate their functions with respect to the examination of the technical aspects of fire prevention. There would be no other duplication of function such as in studying whether or not there should be a Federal development of minimum standards for equipment, for buildings, et cetera.

I suppose you might reply, then, that we in Congress ought to consider that question. But should we consider it before we have reliable information on the technical problems that relate to possible Federal control?

Mr. JABLONSKY. Well, I think our position on that—and it comes in later in my testimony—is that we are not opposed to a study. Certainly anything that would further the knowledge and the control we have over fire would be just what everybody wants.

Mr. ECKHARDT. Isn't that all this bill does?

Mr. JABLONSKY. Our position is that this has been done so many times, rather than do it again, let's proceed.

Mr. ECKHARDT. But haven't the studies examined the technical questions, and not the governmental questions; the policy questions of whether or not there may be such concern with respect to certain types of dangers that the Federal Government ought to set some type of minimum standards. For instance, some of the cases that concern Mr. Luken very much are situations where dangers right across the State line may greatly endanger the population within his State. Yet, neither his State nor his municipality has any control over that which lies outside of their jurisdiction.

Or cases like that of the *Amoco Virginia*, a ship which caught fire in the Houston ship channel in the early 1960's. Clearly there was large involvement of interstate commerce in the case. It was actually on navigable waters. The question was whether the fire department of the city of Pasadena, or the fire department of the city of Houston, or the Houston Port Authority with its fire boats, should be responsible for combating the fire? And what should be the standards applied?

The result of the fire was a very tragic incident in which a fireman of the city of Houston, who was completely untrained with respect to working under conditions where foamite was being used, slipped into the hold of the ship and was killed in the inferno in the hold. Situations like this, it seems to me, raise very serious questions regarding the necessity for Federal involvement because of the interstate aspects. I would not think any existing agency is looking into the question of policy with respect to standards in this type of situation.

Mr. JABLONSKY. It was our understanding that was part of the charge to the National Fire Prevention and Control Administration and that this would be in their programs in the coming year.

Mr. LUKEN. If the chairman would yield, I would like to bring the chairman up to date on the testimony.

Mr. Tipton, head of the Fire Prevention and Control Administration, testified this morning that though they had a general injunction in that act to conduct studies, that they had no present plan to conduct such a study and, under questioning, indicated that they did not have the resources to carry out the kind of study which would be necessary to complete the full purview of this situation as described by the chairman and as we have been discussing before.

They have the naked authority but not the mandate to do it; not the mandate for the resources. And I would say from what we have heard today, that if we believe that this bill is well devised, that we need something of this kind, some legislation of this kind, to give them both the mandate and possibly the resources, which, as has been indicated, would be no more than \$500,000, whereas the property damage and total cost of fires in this country is about \$12 billion per year.

Mr. ECKHARDT. Mr. Jablonsky, would you object to giving them such mandate and such resources?

Mr. JABLONSKY. No, definitely not.

Mr. ECKHARDT. How about you, Mr. Trant?

Mr. TRANT. No.

Mr. ECKHARDT. So if this bill were amended to authorize the NFPCA to conduct the study, would you not object to it?

Mr. JABLONSKY. I think that Agency has so much background in this, especially since its hearings back in 1971 and 1972, that much of the work is done and they have some place to start.

Mr. LUKEN. It is contemplated this agency would carry it out. This Agency is part of the Commerce Department.

Mr. ECKHARDT. What is it, then, that you suggest we modify in this bill other than a specific reference to the National Fire Prevention and Control Administration?

Mr. JABLONSKY. Our suggestion was that concerning this bill, as we read it, that the effort be directed more toward improving the qualifications of the inspector and improving the enforcement rather than directed to starting at ground zero and going through another study of the need for Federal involvement, which was done by the Douglas Commission back in 1967 and the Fire Prevention and Control Commission back in 1972. Possibly we misunderstood that fact. What we saw it as was another study starting at zero to get the same information that has already been gathered numerous times before with the conclusion, as I point out later in my testimony, that a single Federal code wasn't the answer.

You mentioned the Houston ship channel and problems such as that. This is part of the overall scope of the fire problem and would not be solved specifically by a code, and we agree that studies of this type should be going on at all times.

Mr. LUKEN. If you would yield at this point. When the first couple of witnesses testified this morning, there seemed to be agreement that with regard to approaching the fire problem in this country, we are really in the dark ages or just coming out, that our loss of life is unacceptable, our total property damage is unacceptable, and that we are not applying the resources of this country collectively where it should be to save lives and to eliminate property damage.

Now, in referring to developments up to now, in 1972, the report which is entitled "America Burning," was prepared by the National Commission on Fire Prevention and Control, which I understand Mr. Tipton is involved in, and I assume you were involved in.

Were you in the field at that time?

Mr. JABLONSKY. Yes, sir.

Mr. LUKEN. I would say in reading it, Mr. Chairman, that its conclusions about Federal involvement are rather tentative, but they represented the first impressions, and what we are talking about is really fleshing that out, picking up where that study left off. I haven't heard any testimony today that contributed to the basic premises or findings of that study.

I have heard, as far as the legislative history of this hearing is concerned, universal confirmation that that study was going in the right direction, and I would like to put my imprimatur on it, if that is in keeping. I would interpret that we would be taking that section of it, particularly which deals with Federal involvement, and giving them the authority, and, if necessary, the resources to update it on the theory that we are in the Dark Ages and need to update it, and that the findings of 1972 were not the last chapter in the book.

Mr. JABLONSKY. Absolutely not. We have come a long way. I prefer the second part of your statement, where you say we are coming out of the Dark Ages. I think we are finally seeing the light on the fire problem, and it is getting more and more encouraging, and I think possibly that is part of the misinterpretation of reading a bill of this type.

As you explained it now, we are taking what we have and we are carrying it forward, rather than our interpretation, which is that we are starting all over again to do the same thing, to find out where we should go.

Mr. LUKEN. Yes, that is the purpose of this hearing, and I hope that there isn't some polarization; I must admit when I read some of this testimony, I got my back up a little bit, but now we are able to discuss it, I find out we don't have as many differences as I thought, and I hope you are finding out the same thing: that we do have common ground.

Mr. JABLONSKY. We all have one goal in mind: to stop the terrible waste every year.

Mr. LUKEN. I think we also have a lot of the same means to attain it.

Mr. ECKHARDT. Proceed.

Mr. JABLONSKY. Well, we covered some of this in our discussion.

Mr. LUKEN. As I indicated, I have a time problem. We have your statement in the record, if you want to wind it up.

Mr. ECKHARDT. If you would like to summarize it—

Mr. JABLONSKY. I will skip to the end, and I will skip over much of what we said. Again, we go back to "America Burning," as being the place to jump off from, and I would just like to conclude with an excerpt from "America Burning."

In conclusion, it is our opinion that the major concern with building and fire prevention codes is not the codes, themselves. For many years we have reviewed losses in an attempt to prevent their recurrence. Instance after instance pointed to the real culprit behind the tragic consequences—lack of proper enforcement.

"America Burning," the report of the National Commission on Fire Prevention and Control, aptly summed up the relationship of codes to the fire problem:

A law is effective only to the extent that it is enforced, and so it is with a fire prevention or building code.

Many serious building fires have been the result, not of code deficiencies, but of lax enforcement (sometimes because of corruption) * * *. Vigilance is needed in the review of plans and in inspection during construction. Once construction is finished, compromises in fire safety may be hidden from view.

The training of inspectors is, in many places, woefully inadequate. In one major city, the only training for fire prevention inspectors consists of sending them out for a few days with a senior inspector. Architects and engineers complain about inflexibility in the codes, but one reason codes tend toward rigidity and detailed specifications is that local building officials and inspectors are not equipped, because of their inadequate training, to evaluate alternative solutions and tradeoffs.

The effectiveness of codes is also compromised by lack of coordination among inspection programs. The building department generally has responsibility for enforcing building codes, the fire department for enforcing fire prevention codes. Because fire prevention bureaus are responsible for fire safety throughout the life of a building, they ought to be consulted by building departments during the design and construction phases. In many local jurisdictions, however, building departments act unilaterally, implementing the building code during these crucial stages without requesting the suggestions and advice of the fire prevention bureau. Since the two codes influence each other but require expertise specific to the enforcement of each, coordination of efforts between the two departments is needed to provide optimum fire protection.

The Commission, in its report submitted to the President on May 4, 1973, recommended that "local governments provide the competent personnel, training programs for inspectors, and coordination among the various departments involved to enforce effectively the local building and fire prevention codes."

We heartily support that recommendation and believe its application to have far more significance in the reduction of tragic loss of life and property by fire than the development by a Federal agency of a Federal building code and fire prevention code or a study relating to such a need.

In light of the discussion we just had, I would like to just amend this by saying, we have no objection to the study. I think nobody could object to such a study. I think it becomes a matter of priorities, and we are more upset with the lack of qualifications and the lack of enforcement; and if we had to choose between the two, we would say enforce what we have and then go forward and see what is wrong with the codes.

[Mr. Jablonsky's prepared statement follows:]

STATEMENT OF JOHN L. JABLONSKY, ASSISTANT VICE PRESIDENT, ENGINEERING AND SAFETY, AMERICAN INSURANCE ASSOCIATION

My name is John L. Jablonsky, Assistant Vice President, Engineering and Safety Service, of the American Insurance Association. Subscribers to our Engineering and Safety Service number over 200 insurance companies that write property and casualty insurance. These companies are vitally interested in preventing the loss of life and property through disastrous fires. We consider it a distinct privilege to appear before you today to present the views of our Association.

Insurance companies have long been leaders in the fire prevention and protection field. It is conservatively estimated that insurance companies employ over 8,500 engineers in the field of fire protection and safety, and that we spend over 200 million dollars annually in providing total control services to industry and the general public. In fact, seventy percent of all safety professionals in this

country work for insurance companies. The technical staffs of our Engineering and Safety Service and our subscriber companies cover a multiple of disciplines including civil engineering, mechanical engineering, chemical engineering, safety engineering, and fire protection engineering. Our Engineering and Safety Service works closely with subscriber companies in support of their fire safety efforts and in developing technical materials to accomplish this end.

The 11,500 lives and the over 4 million dollars in property lost annually to the thousands of destructive fires in the United States should be unacceptable to all of us. But the loss would have undoubtedly been greater over the years without the constant efforts of the insurance industry in curbing this wanton waste of human effort.

The beginning of organized insurance fire control activities took place on July 18, 1866 when the National Board of Fire Underwriters was created. This organization for the next 100 years was destined to become a leader in the battle against fire. The efforts of this organization were soon focused on fire prevention. In 1873 the President of the National Board observed that "with the exception of New York no large city had laws on the books that even remotely provided for the erection of buildings that would resist fire and even in New York the building law was administered feebly." He proposed that the National Board of Fire Underwriters take on the job of pressing for laws that would help prevent fire.

After disastrous conflagrations in New York, Seattle and Spokane, Washington and Lynn and Boston, Massachusetts in 1889 the National Board hired experts to examine the conditions and requirements of fire departments throughout the country. This was the beginning of a Municipal Survey Service, which still exists under the Insurance Services Office, whereby all aspects of public fire protection including fire department, water supply, and fire safety control are evaluated. A few years later the National Board approached President Benjamin Harrison and Congress to the end that fire prevention might be made a matter of national concern by means of a federal government investigation of fire causes, building construction, and regulation of special hazards.

At about this time a technical conference was held with a committee of architects, builders and fire protection engineers. From this came the "National Building Code" of the National Board of Fire Underwriters, the first model building code in the nation. This code, as periodically revised, is still used by more than 1800 communities throughout the country.

Meanwhile a group of insurance underwriters formulated "Standard Electrical Rules" which was the forerunner of the widely used "National Electrical Code" to govern the safety of all electrical installations.

A one-room testing laboratory set up by midwestern insurance underwriters to test electrical installations in 1893 grew into Underwriters Laboratories Inc. which now operates as an independent scientific test facility with over 2000 engineers and technicians.

Realizing the need for a broad based organization to develop standards in fire prevention, a group of technical men from the insurance industry formed the National Fire Protection Association. This was the beginning of "NFPA", an internationally recognized standards producing organization.

With these basic beginnings, the services of the insurance industry spread widely to serve the entire nation in the form of fire prevention campaigns, development of codes and standards, printing of technical booklets, arson investigation, preparation of fire service training material, and consultation with governmental agencies to name only a few. Fire rating bureaus across the nation, each staffed by qualified engineering personnel contributed to the overall fire effort. The American Insurance Association's recommended "Fire Prevention Code" was first published in 1930 and has since been adopted by more than 3800 municipalities and seven states.

In 1965 the American Insurance Association was formed by combining the engineering talents of the National Board of Fire Underwriters and the Association of Casualty and Surety Companies resulting in a broad program of multi-line engineering service dedicated to the prevention of life and property loss.

As was mentioned, the American Insurance Association promulgates the National Building Code and a Fire Prevention Code. A brief review of the procedures followed in the development of these codes is in order, as they differ from those used by most other model codes.

Amendments or revisions to the National Building Code are made whenever it is determined that provisions of a major section need changing. A draft of the complete revised section is prepared and sent to interested parties, including professional and trade associations, governmental officials, and a committee of

the American Institute of Architects, for review and comment. After comments are received they are evaluated by members of our staff. Depending on the nature of the comments, we may refer them to a Fire Protection Committee or to the Building Construction Committee of our Advisory Engineering Council, or discuss it with a representative of the committee that has developed a related nationally recognized standard. When the revised provisions of the section are finalized, copies are made and notices sent to municipal and state officials informing them that a revised section or a complete revised code is available. In addition, a news release is sent to publishers of architectural, structural and other technical magazines.

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Development of the Fire Prevention Code follows a generally similar procedure except that considerable reliance is placed upon standards of the National Fire Protection Association.

For more than a decade we have participated in hearings and discussions concerning the desirability of a single nationwide building code or, indeed, a federal building code.

We don't believe that it is very likely that a single nationwide building code will be developed, at least in the near future. Fairly good code uniformity on matters concerning structural design, electrical installations, habitability, plumbing, and similar items is quite possible, and, in many cases, is already standardized. But, when the subjects of fire and life safety are discussed, it is rare when two individuals or organizations will completely agree; there are bound to be differences of opinion—probably because fire protection and life safety, unlike structural design, cannot be calculated by some formula or specifically determined by some test. Fire protection and related life safety, in this sense, are more "art" than "science". Until our technical knowledge of fire and life safety is strengthened, it will be virtually impossible to reach the uniformity necessary to develop a nationwide code.

Is a federal code desirable? We don't believe it is. We are of the opinion that local jurisdictions must have the right to provide the building code provisions that they believe are necessary for their locality. What is suitable for one municipality, will not necessarily be suitable for another. Public hearings which are scheduled at the time of adoption are the ultimate forum for determination of local acceptance.

The National Commission on Urban Problems held exhaustive hearings, and conducted research and inspections in 1967 and 1968 to determine, among other things, the need for a federal code. Their conclusions could not justify such a need.

The National Commission on Fire Prevention and Control in 1972 heard testimony concerning the desirability of federal building and fire prevention codes. No need for such codes could be justified.

We believe any further study concerning the need for federal control of building and fire prevention codes will find the same lack of justification.

We have been asked to briefly describe those provisions in the 1976 edition of the National Building Code which are concerned with extinguishing systems, smoke detection systems, and exits in places of public assembly.

If one assumes that means of egress, including number of exits, remote separation of exits, and travel distances to exits, and also permitted occupant load based on square feet of area per occupant are in compliance with the requirements of other sections of the code, then the requirements pertaining to extinguishing systems are related to three important items: type of construction of the building, number of permitted occupants, and location within the building.

As an example, in buildings of unprotected noncombustible/limited-combustible construction without automatic sprinkler protection, the provisions limit the number of occupants to less than 1000 in the story of discharge and places of assembly are not permitted above or below that story. However, if a building of this type of construction is equipped with an approved automatic sprinkler system, the provisions of the Code will permit more than 1000 occupants in the story of discharge and will permit up to 999 occupants in the story above and in the story below that story. Even with an automatic sprinkler system in a building of this type of construction, the provisions of the Code do not permit places of assembly in the other upper stories or in the sub-basements. Additionally, the code provisions recognize the installation of partial automatic sprinkler systems. Where an automatic system is installed in the story of discharge and in the stories below, Class A places of assembly (1000 or more people) are permitted in the story of discharge and up to 999 people are permitted in the first story below that story.

There are similar provisions for buildings of each type of construction. For example, places of assembly are permitted in the story of discharge and in all stories above the story of discharge in buildings of fire-resistive construction even without having automatic sprinkler protection. Such buildings would be required to have automatic sprinklers if there is to be a place of assembly below the story of discharge, but the system need by only the in story of discharge and in the stories below.

The code has additional provisions regarding the installation of automatic sprinkler systems where the assembly occupancy contains a restaurant or night club with commercial cooking equipment. Regardless of the type of construction, provisions require automatic sprinklers in all large area buildings which have a restaurant or a night club. The largest area permitted without automatic sprinkler protection is 20,000 sq. ft. for the story of discharge. The allowable area of a story without such protection decreases until all stories above the fourth, need this protection. In addition, all stories below the story of discharge are required to have an automatic sprinkler system. Also, the Code requires automatic sprinkler systems in all buildings exceeding 75 feet in height regardless of occupancy.

The 1975 Code does not have any provisions requiring smoke detection systems in places of assembly, although there are provisions requiring smoke detectors for the control of large heating and air conditioning systems, and for the control of elevators in tall buildings.

Regarding exits, there are a number of provisions directed to the arrangement of the means of egress. These require that the exits be remote from another to minimize the possibility that a fire or other emergency condition may block both exits or the access to both exits. In addition, the provisions state that the exits are to be located to provide logical paths of travel with proper regard to safety of the occupants and ease of egress, based on factors such as occupancy, arrangements of rooms, and continuity of exits to doorways in exterior walls which discharge to streets, public places, or public ways.

The Code provides for a minimum number of exits for each Class of place of assembly. For example, Class C, 50 to 299 people, is required to have not less than 2 exits; Class B, 309 to 999 people, must have not less than 3 exits; and Class A, 1000 or more occupants, must have not less than 4 exits.

The travel distance from any point in a story used for assembly occupancy to an exit is not permitted to exceed 100 to 200 feet, depending upon the location in the building and whether or not sprinkler protection is provided.

The Code also has provisions, such as those regulating the width of aisles, which have a direct bearing on the ease of occupants reaching exits in places of assembly.

It also should be noted that the Fire Prevention Code has detailed requirements concerning places of assembly. For example, the use of panic hardware, maintenance of aisles, evacuation plans, lighting of exit ways, and the posting of maximum number of occupants is covered.

We have also been asked to comment on the method by which the National Building Code affects existing buildings. "Existing" by the Code definition means

"In existence before the time that this Code became effective". With two exceptions, an existing building need only comply with the provisions of the Article on Requirements for Existing Buildings. This Article has been developed to provide for life safety provisions that are deemed essential but which may be lacking in a pre-code building. Items covered include posting of floor loads, regulation of interior finish materials and floor covering, roofing, heat producing appliances and, more extensively, means of egress. The two exceptions mentioned include a conversion from one existing occupancy classification to another which would require compliance with the provisions of the Occupancy Requirements Article of the Code and restoration of an unsafe building involving more than 50 percent of its value which would require total conformance with the Code.

In conclusion, it is our opinion that the major concern with building and fire prevention codes is not the codes themselves. For many years we have reviewed losses in an attempt to prevent their recurrence. Instance after instance pointed to the real culprit behind the tragic consequences—lack of proper enforcement.

"America Burning", the report of the National Commission on Fire Prevention and Control aptly summed up the relationship of codes to the fire problem:

"A law is effective only to the extent that it is enforced, and so it is with a fire prevention or building code."

"Many serious building fires have been the result, not of code deficiencies, but of lax enforcement (sometimes because of corruption). . . . Vigilance is needed in the review of plans and in inspection during construction. Once construction is finished, compromises in fire safety may be hidden from view."

"The training of inspectors is, in many places, woefully inadequate. In one major city, the only training for fire prevention inspectors consists of sending them out for a few days with a senior inspector. Architects and engineers complain about inflexibility in the codes, but one reason codes tend toward rigidity and detailed specifications is that local building officials and inspectors are not equipped, because of their inadequate training, to evaluate alternative solutions and trade-offs."

"The effectiveness of codes is also compromised by lack of coordination among inspection programs. The building department generally has responsibility for enforcing building codes, the fire department for enforcing fire prevention codes. Because fire prevention bureaus are responsible for fire safety throughout the life of a building, they ought to be consulted by building departments during the design and construction phases. In many local jurisdictions, however, building departments act unilaterally, implementing the building code during these crucial stages without requesting the suggestions and advice of the fire prevention bureau. Since the two codes influence each other but require expertise specific to the enforcement of each, coordination of efforts between the two departments is needed to provide optimum fire protection."

The Commission, in its report submitted to the President on May 4, 1973, recommended that "local governments provide the competent personnel, training programs for inspectors, and coordination among the various departments involved to enforce effectively the local building and fire prevention codes."

We heartily support that recommendation and believe its application to have far more significance in the reduction of tragic loss of life and property by fire than the development by a federal agency of a federal building code and fire prevention code or a study relating to such a need.

Mr. ECKHARDT. In that light, are there guidelines and procedures for the enforcement of the model building codes within the codes themselves?

Mr. JABLONSKY. I am not sure I quite understand the question.

Mr. ECKHARDT. It seems to me, as you point out, enforcement is a major problem. Now, are there standards or processes for enforcement within these codes, or are they the end product themselves?

Mr. JABLONSKY. The local jurisdiction adopting the code ordinance sets up an enforcing procedure. When the code then is enforced, it is a simple "Thou shalt do so and so," and if you don't do it, you are in violation of the code.

Mr. TRANT. The model code organizations do have training programs and certification programs of inspectors to say that they are trained and certified to inspect under a particular code.

Mr. ECKHARDT. Don't some of these codes provide for a permit system in which a person who is subject to a permit is assumed to have qualified under the code?

Mr. TRANT. They all have a permit system, most in the administrative sections. Most of the local jurisdictions charge for the building permits and use this as a source of revenue, of course, to support that inspection department. There are provisions in the codes that require plan examination prior to issuance of permit and inspection during construction.

Mr. ECKHARDT. Since, Mr. Jablonsky, you have said that most of the tragic fires are due to the lack of proper enforcement, doesn't that raise some question as to whether or not the guidelines and procedures are adequate?

Mr. JABLONSKY. I don't think it is a question of guidelines and procedures. A very simple illustration and one of the biggest problems that exist in the fire fraternity is what is known as pokethrough. It is very basic to a code that when you put a floor down, and it has certain structural requirements and fire resistance requirements, that you don't poke a hole in it. Other trades move in, the electrical industry or the communications industry, and they put a big hole in the middle of the floor to stretch a line from one floor to another. This is in direct violation of the code. All four model building codes, all large city building codes, have this requirement; it is so basic.

Mr. ECKHARDT. If there is not some procedure to prevent that kind of thing, then isn't your standard useless no matter how good its substantive provisions are?

Mr. JABLONSKY. Exactly, and the building official has the power to inspect the building, see the hole and make sure it is properly safeguarded or the work is stopped. This is where the problem exists. The building official knows the hole doesn't belong there, and the architect and builder know it doesn't belong there. We all know the hole doesn't belong there; yet when we have a fire, it travels from one floor to another through the hole.

Mr. ECKHARDT. So the architect is examining the structure from a structural standpoint as to whether or not it meets structural requirements and esthetic requirements—

Mr. JABLONSKY. And fire protection requirements, too.

Mr. ECKHARDT. Hopefully, but you indicate that he frequently looks at the first two but not at the third.

Mr. JABLONSKY. That is right.

Mr. ECKHARDT. I don't know how you provide procedures that require persons to inspect for fire protection purposes as well as others, but this probably is the most important of the three.

Mr. JABLONSKY. Plus you need the number of inspectors, too; that is another failing we have. We just don't have the number of people to physically go out and inspect these things.

Mr. ECKHARDT. On another point, it has been said that the model building codes have been rather slow to meet requirements of new materials and new techniques. Do you feel that is true?

Mr. JABLONSKY. I don't feel it is true with the National Building Code or the other codes, too, what little I know about them. The general administration section of any building code does have provisions to accept new materials or new methods of construction, new assemblies of construction with the proposer submitting proper test

data to the building official. The person that wants to use a new material or new method of construction should have some engineering background before he goes ahead and does it. With this submitted to the building official, the code does make allowances for the acceptance of this under the general acceptable procedure section.

Mr. ECKHARDT. To what extent do the model building code organization obtain technical expertise of this type?

Mr. JABLONSKY. You mean as far as submittals are concerned of code provisions?

Mr. ECKHARDT. Yes; with respect to new materials.

Mr. JABLONSKY. I think all the trade associations are standing at our door waiting to knock them down to introduce new materials. The producers of the building materials that want to get them into the marketplace know that they will need code acceptance, so they provide the engineering expertise and the test data usually to the building code organizations.

Mr. ECKHARDT. Now, I understand that the organization is set up on a consensual basis so that everybody has to agree before the final code language is established.

Mr. JABLONSKY. Mr. Chairman, that would pertain more to the building officials organizations codes, the three others. In the American Insurance Association we don't have quite that procedure.

So possibly Mr. Trant would comment.

Mr. TRANT. The model code organizations do have a system of amendment that requires presentation of the proposed amendments and hearings before committees and approval by the committee and then a vote by the membership.

Mr. ECKHARDT. Suppose you have a new material that requires such an amendment. About how long does this process take?

Mr. TRANT. We are talking about a year or 18 months.

Mr. ECKHARDT. Does the public have an opportunity to propose changes? For instance, a person who has suffered a fire loss may be absolutely outraged that a particular situation has caused that loss and may be a very valuable participant in identifying the cause of the fire. How does somebody other than a person in the industry come into the process?

Mr. TRANT. Anyone can propose changes, can speak on any of the code changes made before the committee or before the membership.

Mr. ECKHARDT. How do you know the process is to commence?

Mr. TRANT. The hearings and so forth, the notices are sent out and published in the major trade magazines and each of the building code organizations have a publication of their own.

Mr. ECKHARDT. There are not many people in the general public who will whip out a trade magazine and read it on the airplane. Maybe they can if they are riding first-class.

Mr. TRANT. They don't get spread around on the airplanes.

Mr. ECKHARDT. Perhaps there should be a more general publication of some type. Do you think that would be practical?

Mr. TRANT. It is fairly well covered in everything except probably local newspapers. It is covered in trade journals.

Mr. ECKHARDT. In 1971, I understand a Canadian study concluded 41 percent of the recent fire victims in Ontario would have been saved if their dwellings had been equipped with early-warning devices, such as smoke detectors. The report of the National Commission on

Fire Prevention and Control indicates 80 percent of the multiple-death fires occurred between 11 p.m. and 6 a.m., when most people are asleep. What requirements, if any, do the model building codes contain concerning smoke detectors and other early-warning devices?

Mr. TRANT. All of the model codes require them in new residential buildings, single-family and apartment buildings.

Mr. ECKHARDT. I suppose it goes without saying if the requirements of such devices had been complied with or had been required at Columbia, and Southgate, Ky., lives would have been saved in those situations?

Mr. TRANT. Warning would have been issued. What happens when an alarm goes off, it is hard to speculate. We have to assume they would have gotten out of the building before fire actually erupted.

Mr. ECKHARDT. The very warning might create some panic in a crowd but, after all, a sudden outpouring of smoke and fire creates an uncontrollable panic in most situations.

Mr. JABLONSKY. There is some difference of opinion on that I detected today in some of the comments made here. Our position is if the building has adequate exits—if you put one door in for 7,000 people, that is inadequate, but assuming there are adequate exits and other provisions of the code are properly in force and in place, we, in places of public assembly, in the National Building Code, call for a manual fire alarm system at the exit.

Keep in mind too a sprinkler system going off will transmit an alarm. We are not afraid of telling the people there is a fire if all the other parts of the puzzle are fit together properly. I think the opponents of such an idea are afraid that a building without the proper exits might cause panic. That is the problem in this whole code field. So many parts have to fit together and one piece falling out of place can lead to disaster.

Mr. ECKHARDT. Thank you very much for your testimony. I think we have, through our colloquy here, found some areas of common understanding and common direction.

That concludes the hearing.

[Whereupon, at 3:30 p.m., the hearing was adjourned, subject to the call of the Chair.]

FIRE PREVENTION STUDY ACT OF 1977

MONDAY, SEPTEMBER 19, 1977

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Cincinnati, Ohio.

The subcommittee met at 9:15 a.m., pursuant to call, in the Zimmer Auditorium Room of the University of Cincinnati, Cincinnati, Ohio, Hon. Bob Eckhardt, chairman, presiding.

Mr. ECKHARDT. The Subcommittee on Consumer Protection and Finance will be in session.

Before we begin today, allow me to express for the subcommittee and myself our deepest sympathies to all of those who suffered as a result of the Beverly Hills Supper Club fire. The study of this fire and the people who fell victim to it is the saddest responsibility this subcommittee has ever undertaken. The enormous loss of life in this single fire focuses our attention on something often overlooked—that 12,000 Americans die in fires each year—and that 300,000 Americans are injured by fire each year.

The subcommittee's study of this fire is sad for another reason. Unfortunately, it is only after a major fire involving enormous loss of life that our society becomes concerned with fire prevention. We will continue to be haunted by the words of the report of the National Commission on Fire Prevention and Control until we heed their warning:

There needs to be more emphasis on fire prevention. Fire departments, many of which confine their roles to putting out fires and rescuing its victims, need to enforce fire prevention codes, and to see that fire safety is designed into building.

The National Commission's report found that paid fire departments typically spend most of their money and efforts on fire suppression. Less than 5 percent of the budget is devoted to fire prevention. If part of the money spent on responding to fires had been spent instead on enforcing a tough fire protection code, would the fires have occurred at all?

The lesson of the Beverly Hills Supper Club fire is clear. The State of Kentucky and the city of Southgate had tough building, electrical, and fire protection codes. Yet, the State's report found that building, fire protection, and significantly, electrical violations abounded in the club. The hard truth is that had these codes been properly enforced, this fire might have been avoided. We cannot continue to focus almost all of our efforts on fire suppression. As one fire expert pointed out, the entire New York City fire department could have responded to the Beverly Hills Supper Club alarm and still not saved any additional lives. Emergencies can arise beyond the capabilities of any fire

department. As the National Commission report suggests, State and local governments must give fire code enforcement a higher priority in the planning of fire department activities.

I would also like to commend the State of Kentucky and its team of experts who investigated this fire for their thorough, well-written, and well-balanced report on this tragedy.

Of course the man on this committee who has been most concerned and responsible in connection with this matter is my colleague, Tom Luken. And of course we also have John Breckinridge who is no longer, I am sorry to say, on the subcommittee which I now serve as chairman; but he and I served as members on that subcommittee for a number of years, and we sorely miss him. His balanced and wise advice on that committee was a great service to us.

So, at this time I would like to recognize Tom Luken.

Mr. LUKEN. Thank you, Congressman Eckhardt, Congressman Breckinridge, Governor Carroll.

I have introduced legislation which has brought about this investigation on the Federal level and has brought about these hearings. I have introduced legislation in the form of an amendment to the Flammable Fabrics Act. We are looking at interior furnishings, but we are also looking at the possibility of Federal action to protect Americans.

We live in the dark ages of fire protection in this country. The chairman has mentioned that 12,000 people lose their lives annually from fire, and the response at the Federal level is a weak research agency. We have the worst record by far of any civilized nation in the world in lost life and in property damage.

Now, what we do know is that the enemy of fire protection is complacency. Complacency such as has already been described by Governor Carroll, that existed to a great extent—to too great an extent, a tragic extent—in this situation. We already know the Beverly Hills fire was not a freak accident; it was not an act of God; it was a predictable, avoidable occurrence. It was preventable. Anyone who looks at this record—and it was not an esoteric, confidential record—it is a record that has been in the newspaper; has been before grand juries; has been discussed widely, can see the fact is that this fire could have been predicted. And the lack of response which this report shows at Beverly Hills to obvious dangers, cost 165 lives.

It is these things we want to look at so that we can do something, just as the State is doing, in order to prevent such an event ever occurring again.

Thank you, Mr. Chairman.

Mr. ECKHARDT. I will recognize at this time Congressman Breckinridge.

Mr. BRECKINRIDGE. Thank you very much, Mr. Chairman. Mr. Luken, members of the committee, Governor Carroll and his staff, and ladies and gentlemen, I want to thank the chairman for inviting me to participate in these hearings at the outset, and join him and the committee, and Mr. Luken, in their expressions of sympathy to those who have suffered as a result of this tragic occurrence.

I would like to say, Mr. Chairman, that I have had an opportunity through the press this morning to appreciate the breadth and the depth of the investigative report of the officials of Kentucky. I want

to say that from my familiarity with the area of firefighting as it exists at the Federal level, in an attempt to resolve the problems which confront us all in our home communities, I think that the Governor's report reflects a condition that permeates the Nation. I think I find that as our friends in the National Fire Prevention and Control Center have expounded to the Congress, a tremendous diversification of responsibility and authority, encompassing some 10 national codes directed to building codes and to fire safety codes; a proliferation of authorities at the Federal and at the State, and at the local level; in fact perhaps—although we take it as one of our more simple areas and local problems—one of the more complex areas confronting us all here this morning in the area of Federal, State, and local relations.

I want to thank and commend my friend, the gentleman from Ohio, Congressman Luken, for his initiative in introducing his bill on this matter, and in precipitating these hearings. I would just like to say as an aside, Tom, I doubly appreciate that because I had discussed with you, and my colleague and our good friend Ray Thornton of the Science and Technology Commission, the investigation of this matter at Beverly Hills, but his calendar would not permit him to reach it until next year.

Very briefly, Mr. Chairman, my staff and I have been drafting legislation also in this area, which we are going to present for the consideration of the Congress, which would establish an Office of Fire Investigation within the National Fire Prevention and Control Center, and would be directed at the problems that are outlined in the report which we have here from the Governor of the Commonwealth of Kentucky, Hon. Julian Carroll. It draws attention to the fact that although there is a proliferation of national standards at the State and at the local level—and particularly at the local level—the problem of the establishment of the necessary expertise, administrative staff, and implementing personnel is a critical factor; that if we have sound codes it is still difficult to choose between them, that if we have sound codes but do not have sound buildings inspection, we have laid the predicate for such tragic events as we are considering here this morning. And, if we have sound building inspection, but do not follow that up with enforcement, then again the problem will strike at home and our continuing death rate of 1,000 a month will prevail throughout the Nation.

The difficulty I am having with this legislation, Mr. Chairman, very simply arises out of its Federal-State-local nature, and the drafting of a bill which will insure the active participation in the public and the private sector of those with knowledge and experience in this area, and no undue imposition on State and local rights. It is my hope that with the cooperation of this committee and the Congress that some profit will come to other Americans as a result of these proceedings this morning.

I thank you very much, Mr. Chairman.

Mr. ECKHARDT. Thank you, Mr. Breckinridge.

We have as the first witness in this hearing Gov. Julian Carroll, who is accompanied by members of his staff. He has graciously indicated to me that his staff will be here as long as we need them with respect to responses to technical questions, and he, himself, will respond to questions. It may be, Governor—I know you have pressing

duties of your State—you may have to leave before we ultimately conclude with some of the technical questions. But at the outset, Governor, I want to thank you for the utmost cooperation with this committee, for your immediate response with respect to the investigation, and your getting the report to us in a timely fashion. I think it has been a model of cooperation between Federal and State activities, and I hope it may set the stage for all of our future relationships.

Governor, you may proceed in the manner you see fit. I believe you have a written statement. If you would like to ask consent to place that in the record and then speak informally, or if you wish to read it, you may proceed at your pleasure.

STATEMENT OF HON. JULIAN M. CARROLL, GOVERNOR, STATE OF KENTUCKY, ACCOMPANIED BY KENNETH BRANDENBURGH, STATE POLICE COMMISSIONER; OVID LEWIS, PH. D., PROFESSOR, CHASE LAW SCHOOL; AND JACK HALL, CHIEF EXECUTIVE OFFICER

Governor CARROLL. Thank you very much, Mr. Chairman, I appreciate your comments. I additionally appreciate your concern for the lives of Americans by bringing your committee to Cincinnati today. I also appreciate Congressman Luken's concern for the lives of not only the people of this area, but his national concern in bringing this matter to the public attention through this committee hearing this morning.

I sincerely believe that this hearing here, within sight, almost, of the scene of the fire, is a public service not only to the people of this area, but the people of the United States, as we openly discuss that tragic event the night of May 28.

Additionally, I am pleased at the presence of my friend and our Congressman from Kentucky, John Breckinridge, and his concern also.

I do have a prepared statement, Mr. Chairman, that I probably would spend less time—knowing lawyers as you probably do—if I went on and read it.

Mr. ECKHARDT. That is fine, Governor. A lot of people ask to summarize, and then they read their statement and we get it in twice.

Governor CARROLL. Mr. Chairman, I would ask that it be filed, of course. I am of course available for such questions at such length of time you wish me to be here, but I will leave, of course, and introduce when I finish the members of my staff who are available to respond to the technical questions that we have before us today.

I come particularly today to officially deliver to this committee in open session the report of the investigation that I ordered into the Beverly Hills fire, a tragedy whose toll in lives reached 164, and whose toll on all of us in Kentucky, in the Nation, and the world, cannot be so readily measured.

Of course we have made a copy of the report immediately available to the committee staff at the time it was delivered to me at the Governor's office on Friday. We immediately dispatched copies of it to the committee staff in Washington. Congressman Eckhardt, let me again say in return to you, we deeply appreciate the cooperation of your fine staff in assisting us uninhibited in the completion of the investigation;

it was a great cooperation to us to insure that the investigation went on uninhibited and was concluded in a reasonable length of time, and the results then made available to this committee.

I first became aware of the fire at Beverly Hills at about 11 p.m. Saturday night, May 28. I retired shortly thereafter, about 11:30 to 11:45, but prior to doing so I instructed the State Police at the mansion to wake me if there was any reason at all to believe that the loss of life at Beverly Hills might be extraordinary. I was awoken at about 1 o'clock, at which time I received a full report of the potential loss of life at Beverly Hills, and then made the decision to leave the mansion myself and go to the scene of the fire. The records indicate that I arrived at the scene of the fire at about 3:30 in the morning of May 29.

I must tell you that the drive to Southgate seemed eternal to me as the magnitude of that tragedy unfolded, as I listened to the Kentucky State Police radio all the way from Frankfort to the scene of the tragedy. My first reactions when I arrived at the scene were disbelief that the reality of the fire could actually be worse than I thought possible; anger that this violence, this snuffing out of human life could occur at all; and a nagging unrest that somehow, somewhere this horror might occur again.

That disbelief, that anger, that unrest led me to immediately order that very morning a thorough, unrestrained investigation into all aspects of the fire. I ordered the commissioner of the Kentucky State Police, Mr. Kenneth Brandenburg and the fire marshal, Mr. Warren Southworth, to coordinate the investigation; and I ordered my chief executive officer—who was at the scene of the fire that morning also—Mr. Jack Hall, to oversee the investigation to insure that no expense was spared, that there was no interference from any quarter, and to provide whatever assistance might be needed by the investigators.

Several days later I asked a distinguished professor of law, Dr. Ovid Lewis of Chase Law School, to serve as my special counsel to work with the investigating team, and to report to me on the various legal implications of the fire.

I had retained Dr. Lewis on recommendations and based on his reputation as a legal scholar. May I say for your general information that I met Dr. Lewis for the first time after the report had been concluded, and discussed the contents of the report with him on this past Saturday morning. I believe you will be as impressed with his work, and with the work of the investigative committee, as I am.

These men, along with dozens of others assisting them, have prepared the report you now have on your desk. It is based on more than 15,000 pages and pieces of documentation that you see before you in boxes to your left, that are of course available to the committee, representing literally thousands of hours of painstaking work. I want to commend not only the chief investigative officers of this report, but to commend and personally thank both the volunteers, and particularly the surviving patrons and employees of Beverly Hills, who provided invaluable assistance in piecing together the story of the fire.

The report was delivered to me at 5 p.m. Friday. Let me attempt to express to you my reactions on reading it.

First of all, as a human being—and anyone reading that seemingly dry, factual, legalistic document will be touched as a human being—I was appalled.

I was appalled that apparently some 20 minutes elapsed between the time the fire was known by the staff of the Beverly Hills and the time the hundreds of patrons in the Cabaret room were notified. By the time that heroic busboy on his own initiative alerted those customers to the danger, there was less than 5 minutes—perhaps as little as 2 minutes—before smoke and fire burst into the room, causing the death in that one room only of 162 citizens.

I was appalled that so many died when so many might have been saved had the management of the club done what is obvious—immediately order the evacuation of the facility upon learning of the fire.

I was appalled that so many died when so many lives might have been saved had the nightclub not been packed to twice at least its legally authorized capacity—aisles blocked, exits locked, and routes to safety blocked with people and tables.

I was appalled that so many died when so many might have been saved had the owners provided the required exits, installed the required sprinkler system, provided the required training for their own employees.

In fact, how many lives might have been saved had not the owners conspired, as the report indicates, to build with inferior materials, to subvert legal requirements, to install substandard and illegal electrical components, the electrical components which, in fact, were a direct cause of the fire?

How many lives might have been saved had the owners not overtly circumvented the law to what they considered to be their own advantage?

These were my reactions as a human being, reactions similar to what I think you will have when you read the report. But I must also react as the Governor of the Commonwealth of Kentucky.

As Governor, I was deeply distressed that an agency of the Commonwealth had been a party to allowing that overt subversion of the law to continue.

How could any agency of the Commonwealth, particularly one so directly involved day to day with the protection of human lives, have become so apathetic about its charge, so mired in bureaucratic procedure that it did not follow through when it knew it needed to follow through?

Indeed, it is evident from the report that the agency might have, through appropriate action, required full compliance with the law. What is now important is that this agency of the Commonwealth be placed in such order that there are no more tragedies it is within the power of the agency to prevent.

There have been changes instituted in the Office of the fire marshal during my administration. In an effort to hire and retain qualified personnel, I saw to it that the pay scale for the fire marshal's office was upgraded. This has resulted in an increase of 50 percent in the number of employees in that office on the job now, over the number when I took office. An examination requirement has been instituted in connection with the training course, and we have established an in-service training program.

However, it is abundantly clear to me after reading the report that the increases in the number of personnel, the upgrades in salary, and the raisings of standards for the fire marshal's office during the 2½ years of my administration have not solved that agency's problems.

Included in my charge to Dr. Lewis was a request for his recommendations as to how we might improve the operations of the fire marshal's office. He advises me that these recommendations are forthcoming. When they are received, I will take such action as is necessary beyond what action has already been taken.

In this interim, in order to correct a critical deficiency noted in the report of not having fire marshals on duty during the evening hours to assist local communities in making inspections of public places such as nightclubs, restaurants and theaters, I am ordering necessary changes in the office to provide that personnel are available during those hours.

This week I will send a letter to the members of the Kentucky General Assembly's Interim Committee on Cities asking them to review all of Kentucky law involving fire codes and standards to ascertain whether these are proper and adequate, and to hold such public hearings as are necessary. I will also ask the committee of the legislature of Kentucky to review our law concerning the fire marshal's office to see to it that the law gives proper authority to the fire marshal to enforce our codes and standards.

I have asked my Commissioner of Insurance, Mr. Harold McGuffey, only yesterday to review the fair insurance plan as it is implemented in Kentucky.

It is apparent in the report that there has not been sufficient communication of information concerning fire code violations between the fire board, which administers the plan, under Federal guidelines and the fire marshal's office. And may I say at this point, Mr. Chairman, I am not sure just yet of what we might even suggest to your committee or such other committees with appropriate jurisdiction, for some Federal legislation respecting the operation of the fire plan nationally.

As we have more time to review the report, and as we receive Professor Lewis' recommendations, as I said previously, we will be taking further necessary actions, that nature of which I shall be happy to transmit to this committee.

I am convinced that the report you now have responds fully to my directive when I initiated my charge. I am convinced of the thoroughness of the report, and that, as I wished, it is free from bias and from interference from any quarter. I believe that you will find that to be true as well.

Most important, I believe, I accept the statement in the introduction of the report that its release should not signal the end of the investigation, but the beginning of an ongoing process of thorough public and official scrutiny of the pertinent facts.

I also agree with the report in its conclusion that the issues will finally be decided in the courts.

I encourage the members of this committee to accept the report on those terms.

I think it must be obvious to the members of the committee that my 2 days with this report does not qualify me as an expert on either the technical or the legal aspects of the report.

I have with me to my left the Commissioner of the State Police, Mr. Brandenburg; to my immediate right my special counsel, Dr. Lewis; and at the end of the table to my right my chief executive

officer, Mr. Jack Hall, who will respond to your questions on the details of the report.

As you know, Mr. Southworth is not here. He has informed me in writing that he concurs in the first section of the report, which is the assessment of factors which directly contributed to loss of life and injury during the fire itself. He tells me he cannot concur with the analysis of the legal issues.

On yesterday, after reading the report in full on Friday night, Saturday, and meeting with my staff on Friday, Saturday, and Sunday afternoon, I concurred in the Commissioner of Insurance's recommendation that Mr. Southworth be suspended pending our further careful review of the report, based on strong evidence in the report that Mr. Southworth ineffectively administered the office of fire marshal. I might add also suspended were the director of the Division of Existing Industries, Mr. Boyd, and also the local fire inspector for existing construction, Mr. Bramlage.

Mr. Chairman, that is essentially my report to you. Of course the contents of the report essentially speak for themselves, and we have available for your committee all of the back-up data. Let me assure you that such other information as your committee desires, we will produce it at the mere asking.

Thank you very much, Mr. Chairman.

Mr. ECKHARDT. Thank you very much, Governor. Mr. Luken?

Mr. LUKEN. Governor, Kentucky shares a problem with many States with regard to the state of fire law; would you agree with that?

Governor CARROLL. I assume so, based on the information in the report, and Dr. Lewis' research that he has talked to me about from other States.

Mr. LUKEN. I do not have that many questions to address directly to you, and the questions are not made in an attempt to pick on the State of Kentucky.

Governor CARROLL. I understand.

Mr. LUKEN. I think we can establish at the outset that Ohio has similar problems, and that other States have similar problems. As a matter of fact, the national fire codes—such as they are—the recommended fire codes are toothless, ineffective pieces of paper in many cases. They are not uniform, they are not in effect anywhere, and they are confusing, even chaotic. We found that in our hearings in Washington when we brought in the national fire experts.

So, I noticed in the State of Kentucky that Mr. Southworth—his official title is what?

Governor CARROLL. State Fire Marshal.

Mr. LUKEN. State Fire Marshal, and he is a part of the Insurance Commission.

Governor CARROLL. That is correct.

Mr. LUKEN. Do you think there should be a separate, independent agency, a State fire marshal's agency in Kentucky; or, would you address yourself to the question of whether being a part of the insurance commission really gives it its proper place?

Governor CARROLL. I am of the judgment that on evaluation of our organization structure in Kentucky, that the State fire marshal's operation within our regulatory cabinet might well be independent of the Department of Insurance. But at the same time, Congressman Luken, when you look at the operation of the Fair plan, there is a

close parallel relationship that should exist between the Department of Insurance and the fire marshal's office. I must tell you, I am amazed, in our own State, why we had the Insurance Services Organization, ISO inspectors, who actually went to the scene and saw the deficiencies, and reported them to ISO, which then calculated the premiums for the insurance rates for Beverly Hills. Then, of course, they were able to get their insurance through that process.

Those deficiencies were never communicated to our own department, the fire marshal, when they were actually within the same department. I would think that we must have a close working relationship between any agencies that have reports of deficiencies in order that we might respond to those deficiencies. They are independent, nongovernment employees in private industry, making inspections. We need to take a look at how we can insure that those inspections, then, are communicated to enforcement officers. That is one of the areas that we are going to check closely in Kentucky. Now, I have talked to Dr. Lewis about this subject matter.

Mr. LUKEN. Well, again, I am not addressing myself particularly to the State of Kentucky; I am making the same observations I have made at our previous hearings, and that is that with regard to the state of fire protection, one of the reasons, it seems to me, we are in the "Dark Ages" is that lifesaving is such an important part of it; yet, the fire industry is dominated by the insurance companies. The insurance industry does not have as its primary purpose the saving of lives—it is the saving of property. I emphasize that as a national problem.

For example, the national fire codes do not provide for smoke detectors or any kind of an alarm system. A smoke detector would have sent an alarm through Beverly Hills in time; that is, as much as 20 minutes earlier, as you indicated.

Governor CARROLL. Right.

Mr. LUKEN. It would have a very important aspect of lifesaving.

Governor CARROLL. It possibly would have saved all the lives that were lost.

Mr. LUKEN. You pointed that out very well.

Governor CARROLL. It might possibly have saved all of them. I might say to you that I totally agree with you in terms of the fact that the insurance industry as such apparently does not have as their primary motive the saving of lives, although in my judgement that should be a strong motive of the companies. I was amazed, in our own Commonwealth, to find out that apparently you can get insurance which gives you coverage while you are violating the law. I was just shocked to find out that under that "Fair" arrangement that you can get coverage, and yet still be in violation of the law. This is one area, as I mentioned in my testimony—although it was not in my written testimony—that I think probably is going to require further exploration. I am interested in Dr. Lewis assisting me in this regard.

Our fire people within the Department of Insurance are under some feeling—and it may be incorrect—that HUD requirements require them to insure people under the Fair plan when they cannot get insurance on the commercial market. I cannot believe that those requirements would extend to a commercial or industrial establishment which is in violation of the law. I cannot believe that.

Mr. LUKEN. Governor, I might say that is because you are not in Washington that you do not understand things like that.

Governor CARROLL. Well, that may be totally true.

Mr. LUKEN. If you are there a while, you have a better understanding of those things.

Governor CARROLL. It may be that those HUD requirements do indeed—I am not suggesting that they do—I am suggesting to you the Department of Insurance thought they did. That is one reason why they say they did not communicate the violations to the fire marshal.

So, I totally agree with you that we need to make certain that the enforcement of the safety codes to save lives throughout America, in every one of our States, need not be dominated by any commercial enterprise or business, whose interest, whose primary interest is not that.

Mr. LUKEN. I think we can agree on that, Governor. The insurance industry is a business, and there are considerations here which transcend the profit motive of a business.

But on the subject of the law, Mayor Paul and other officials of Southgate have indicated uncertainty in their minds as to the state of the law—I am again referring to Kentucky as an example, not as “the” law. You have joint obligations, do you not, under your law, with the State fire marshal and the local fire enforcement agency, which was in this case the city of Southgate, all involved.

Governor CARROLL. That is correct.

Mr. LUKEN. And Mayor Paul is correct, then, in saying in effect what he did say—and I am not sure he said it in these words—that he needs a legal expert in order to interpret that law.

Governor CARROLL. That is entirely possible. The comment a little while ago, I thought, was right interesting, Congressman Luken; you said that there has been some evidence to the fact that the national codes themselves are confusing. Let me tell you how confusing they apparently are. Our own General Assembly in Kentucky through our regulatory process approved a regulation in Kentucky embodying the national fire codes in our administrative structure and the process they approved in 1976 and 1977. I invite your attention to footnote 44 in the back of your report. Footnote 44, I think, indicates that our people in Kentucky got so confused in trying to adopt to national code that they adopted actually something that does not exist. There is a 1976 code, and there is a 1977 code, but there is no 1976-77 code. So, there is a substantial amount of confusion even at the high level of our regulatory process in Kentucky that has not made it actually clear to the Kentucky authorities what it is they are adopting nationally.

Mr. LUKEN. Again, I do not want to speak for the Southgate authorities, but it is my understanding that they did not even have a copy available of the code. So, they were the blind leading the blind in a case like that.

Governor CARROLL. The investigative report so reflects.

Mr. LUKEN. Now, you indicated that Marshal Southworth has been suspended. When did that occur?

Governor CARROLL. Yesterday afternoon, on the order of the Commissioner of Insurance.

Mr. LUKEN. And Mr. Boyd, his position is?

Governor CARROLL. He is the director of the Division of Existing Structures, existing facilities—the Division of New Construction.

Mr. LUKEN. His name appears frequently not only in your report, but in previous reports about the fire enforcement situation in Kentucky.

Governor CARROLL. Yes.

Mr. LUKEN. We do have a bit of a gap here as far as people answering questions on that subject; do we not?

Governor CARROLL. He was in a very significant position. In 1971 the previous fire marshal at the time the major plans and specifications of Beverly Hills were approved by that previous fire marshal, John Calvert, in 1971, Mr. Boyd sent a memo to Mr. Calvert pointing out to him deficiencies that existed in the original plans and specifications, and the previous fire marshal essentially took those plans and specifications out of Mr. Boyd's hands and approved them on his own. And these deficiencies, as this record will indicate, were never corrected.

Mr. LUKEN. Have they been suspended with pay?

Governor CARROLL. Yes, sir; with pay.

Mr. LUKEN. So, there is every possibility that they will be returned to duty.

Governor CARROLL. The possibility that they may be returned to some duty in the State government.

Mr. LUKEN. The two of them were instrumental in preparing this report; is that right?

Governor CARROLL. I would have to ask one of the other members to respond to that directly. It is my understanding that the members who did prepare the report for the fire marshal's office are here. As such Mr. Boyd and Mr. Southworth were not personally involved in the preparation of the report.

Mr. LUKEN. Perhaps we should establish that. Could we do that now, Governor?

Governor CARROLL. Commissioner Brandenburg.

Mr. BRANDENBURGH. Congressman, Mr. Robert Estep and Mr. Earl Conover of the State fire marshal staff were the two staff members, the two professional staff members who worked as members of the investigating team. They are here today and will be available to respond to any questions you might have of a technical nature that should be directed to them.

Mr. LUKEN. Well, were they employed at that time?

Mr. BRANDENBURGH. Mr. Conover is a deputy fire marshal, and Mr. Estep is an assistant fire marshal.

Mr. LUKEN. And were they working for Mr. Southworth since he has been in office? Did they respond to the facts contained in the report other than the investigation? They were the investigators, they were not on hand at the time.

Mr. BRANDENBURGH. I believe Mr. Conover has been employed with the State fire marshal's office for some years, and Mr. Estep is a civil engineer who has recently been employed there. I am sure he can answer quite a number of the technical questions.

Mr. LUKEN. Well, I think we will have to see as we go along whether that leaves some gaps in our investigation today with the unavailability of Mr. Southworth and Mr. Boyd.

Governor, you talked about the delay, and quite appropriately so, I think. That is the delay in notifying the people, particularly in the

cabaret room, of the danger. As I understand it, some of the employees were actually marching to safety some of the patrons at the same time as "business as usual" was being conducted in the cabaret room.

Governor CARROLL. Yes. The record clearly indicates that there were people passing by the cabaret room, practically fleeing the fire, while the performance was going on in the cabaret room. It is totally unbelievable, but the record indicates that very strongly.

Mr. LUKEN. And this indicates that at least insofar as an assembly hall of this nature is concerned, we do need real meaningful training for employees.

Governor CARROLL. Absolutely.

Mr. LUKEN. Not only the owners, but supervisors.

Governor CARROLL. Absolutely.

Mr. LUKEN. We do know that there was notice to Beverly Hills of the need for such training. I refer to a newspaper article of March 17, 1971, with reference to the grand jury that met in Newport and Campbell County. The report of the grand jury on the Beverly Hills Supper Club said, "We have been informed that the operators of Beverly Hills will train their employees in fire prevention and fire fighting in order to have its own fire brigade," et cetera.

Now, I have not had a chance to study the report, but I believe the conclusion is, that did not happen.

Governor CARROLL. It absolutely did not happen. It was a misrepresentation on the part of the officials of Beverly Hills; and they have knowingly failed to do that, having assured the grand jury of Campbell County that they would do it.

Mr. LUKEN. And they also misrepresented to the grand jury the fact that the violations had been corrected. Is that correct?

Governor CARROLL. I have a little difficulty with the grand jury report, reading it—it is very short—as to whether or not those violations as such were a clear subject of discussion before the grand jury. I think I could arrive at the same conclusion, the grand jury was apparently satisfied that they were going to be corrected. I believe that might well be a more accurate assessment of the findings.

Mr. LUKEN. It is my understanding—and again, I have not had a chance to read that report thoroughly—that the previous fire marshal made those representations to the grand jury.

Governor CARROLL. The previous fire marshal responded to a letter written by the officials of Southgate, assuring the officials of Southgate that the deficiencies would be corrected. I do not believe the grand jury ever called Mr. Calvert. He did not testify. At least the records indicate that Mr. Calvert did not testify before the grand jury.

There might well have been a telephone conversation between Mr. Calvert and some of the officials of the grand jury during 1971, but apparently he did not testify. I think the assurance, Congressman Luken, of which you speak, is possibly one that was in writing by Mr. Calvert to the officials of Southgate. He did make that assurance, though.

Mr. LUKEN. He did not testify orally, but he did submit it in writing; is that correct as far as you know?

Governor CARROLL. My staff is inviting me to page 13. The grand jury report there on page 13 just generally states that they have heard testimony that Beverly Hills has complied with all fire and safety regulations. That could very well be interpreted to mean

that they thought—the grand jury thought—those 10 deficiencies had been corrected. I would probably agree with you, Congressman Luken.

Mr. LUKEN. I have a letter here of December 10, 1970, under the signature of John Calvert, State fire marshal, to the chief of the Southgate Fire Department. It says, "After finally receiving plans for Beverly Hills I immediately sent an inspector to the site." It goes on, "I received my inspector's report on said building and after visual inspection and discussion of these corrections with Mr. Schilling I have been assured that the corrections under discussion would be taken care of."

That is still prospective, that is on December 10, 1970. Well, we have established, I believe, that the grand jury was lied to by certain officials. As you have indicated, there was a conspiracy in effect.

Now, I wonder what actions are being taken. I think you have already indicated that the Campbell County grand jury will be possibly taking up some of these matters.

Governor CARROLL. As a matter of fact, Commissioner Brandenburg can speak to that. He has a meeting later today with the Commonwealth's attorney. The State attorney general is already working with the Commonwealth's attorney of Campbell County. It would be our judgment that the matter will come promptly before the Campbell County grand jury.

Mr. LUKEN. Mr. Brandenburg, is there anything you would like to say to elaborate on that?

Mr. BRANDENBURGH. That is correct, Congressman Luken, we met in fact yesterday, also, with the Campbell County Commonwealth's attorney and presented him with copies of the report, and discussed the salient issues that occurred to us that ought to be brought to his attention. We pledged him our full cooperation and full access to all the documentation we developed. He presently is in the midst of a term of court, and is in fact personally involved in a trial that will take about 2 weeks. I expect to begin detailed discussions with him and his staff sometime the first part of October.

My personal feeling is—and of course I cannot speak for him—that the matter will certainly come before the Campbell County grand jury at its next session.

Mr. LUKEN. This would be a matter of possible violations, criminal actions?

Mr. BRANDENBURGH. That, and then the other more general role of the grand jury in Kentucky of overview of governmental functions.

Mr. LUKEN. That is why I asked that question because those of us who are not from Kentucky are not familiar with that role of the grand jury. Not being familiar with it, I am not going to ask any questions about that. But you are referring to possible criminal violations, I assume.

Mr. BRANDENBURGH. Yes, sir, I have a specific duty under chapter 227 of the Kentucky Revised Statute to report to the Commonwealth's attorney any evidence which has been developed in the course of an investigation which leads me to believe criminal actions have occurred, and a presentation should be made to the grand jury. So, I have begun that process, I have initiated the process.

Mr. LUKEN. Well, the report refers to possible criminal violations. In fact, it suggests that criminal violations have occurred. I think

there is no other conclusion that one can come to from these facts, other than that knowing criminal actions were committed with regard to failing to disclose, actually concealing facts from public officials which facts would have shown code violations. Not only were there violations of the code, but there was actually concealment of them, which is, I think, why the term "conspiracy" is used by the Governor, and why it was very apt.

Are those the matters that you will be referring to the prosecutor for the grand jury?

Mr. BRANDENBURGH. That is correct, yes, sir.

Mr. LUKEN. Now, of course as far as these matters are concerned, you will continue with the presentation of the facts to the legal authorities.

Mr. BRANDENBURGH. Yes, sir, that is correct.

Mr. LUKEN. But now, looking down the road—and again taking Kentucky as an example, not just confining it to Kentucky—what safeguards do you think we will have, or you will have, that the same kind of thing could not happen again, as far as the concealment to the grand jury, incorrect representations to a grand jury, and actually stopping the grand jury investigation, thwarting them?

Governor CARROLL. I am anxiously awaiting the work of Professor Lewis. We have already discussed that very question last Saturday morning. Congressman Luken, we are taking into consideration such questions as enacting legislation that may well relate to duties of architects, that not only relates to their design, that they adhere to national safety codes in design, but that we might well require inspections and certification by architects that those designs have been followed in the construction.

In this particular instance we know that the owner of the Beverly Hills, in spite of the fact that one of the architects had so drawn their specifications, that the owner had actually changed those specifications and built less exits than the architect had recommended.

In another instance there is evidence to indicate that the owner conspired with an architect to fraudulently certify that certain instructions had been accomplished, and certain materials had been used—that was untrue.

So, we will be taking a look at various mechanisms through which we could insure that whatever was proposed, was actually constructed.

Mr. LUKEN. So that we can better understand it, can you give us the details of that, the facts on that?

Governor CARROLL. Yes, while you may be going to another question to me particularly, I will have someone pull that out of the report for you, Congressman Luken. I might even have it myself.

Mr. LUKEN. All right. Well, not only architects but electrical inspectors are a problem here; are they not?

Governor CARROLL. That is correct.

Mr. LUKEN. Electrical inspectors, according to the system we have—and that is true in almost any State—are private businessmen, who are hired by the applicant, by the owner, by the person doing the construction, to make the inspection as to whether the electrical work has been done according to the code; is that not right?

Governor CARROLL. That is correct. As a matter of fact, there is also evidence in here to show that the owners instructed the electrical workers to install various electrical devices in violation of the law.

Mr. LUKEN. That is the electrical worker, but the inspection was also made by someone who gave an affidavit.

Governor CARROLL. He gave a false affidavit.

Mr. LUKEN. A false affidavit.

Governor CARROLL. That is my memory, also. By the way, my records indicate that with respect to the architect—you find that information on page 18—and I believe the information there in the question-and-answer series covers one architect who had designed a structure that was changed, and then later on, in a later paragraph, another architect apparently participated in some representation that was untrue.

With respect to the question of the wiring, my notes say that is on page 816, and that is true, at the top of page 816, Ages & Howard, you will see a showing that the owner instructed the worker to install wire that is incorrect. I cannot find at the moment—and some of the members of the investigative team might be able to pull it out for you—the misrepresentation on the electrical inspections.

Mr. LUKEN. I think the language of the report there is very good:

A major factor in keeping Beverly Hills in operation without compliance were the owner's and operator's surreptitious behavior and failure to live up to commitments made.

Of course some of that, much of that behavior, was done in collaboration with various officials and employees. I think the point is that the electricians were his employees, and yet, they were making certifications which had some public effect.

Governor CARROLL. That is correct.

Mr. LUKEN. This troubles me, and again, I know that it applies generally. It troubles me that this situation can go on. We are handling it more like a business, and yet, people's lives are involved, as is shown here.

Governor CARROLL. Well, sir, obviously in one of the areas of clear omission on the part of officials there was an omission that did not specifically cover the existing structures at any time new construction was taking place. However, these owners every time they apparently got ready to do some construction, they totally ignored the law that required them to come and get a permit, they just went on and started building.

As a matter of fact, the Garden Room at the back of the Beverly Hills, the evidence indicates, was 90 percent constructed at the time there was an inspector out there who saw it, and yet no permit had been issued for it. As a matter of fact, they found two disturbing things as a result of the fire. They found out there was actually construction going on at the time of the fire for which no permit had been issued. They found that there had been a fire in 1974 for which the owners had received insurance reimbursement, for which no report had ever been given, which again compounds the total disregard that these owners had for their patrons.

Mr. LUKEN. Now, we have a fire here that killed 164 people that is described, diagnosed as an electrical fire, originating in the Zebra Room.

Governor CARROLL. That is correct.

Mr. LUKEN. What records do we have as to inspections of the Zebra Room, of the work that went into the Zebra Room, which work has been described as faulty, as not only being the origin of the fire, but

causing the conditions of the flashover which actually killed the people in the cabaret room?

Governor CARROLL. I would prefer that these technical questions now, Congressman, be referred to the staff.

Mr. LUKEN. They will be testifying?

Governor CARROLL. Yes, sir. They are here and are available and will be testifying. That information is in the report, it is a good question, and they are a little more capable of responding to it than I am.

Mr. LUKEN. All right, I just want to mention one other thing. I noticed here that there are many shocking things, as you have indicated in the report. One of the most shocking is the statement that the State fire marshal and his assistants never inspected Beverly Hills when it was in operation as a supper club at a time when people were there, to check for overcrowding or any related matters. They never did because they were on a schedule that terminated at 4:30 p.m.

Governor CARROLL. That is correct. May I say, Congressman Luken, it is totally indefensible, but the fire marshal thought that Federal guidelines on overtime would not have covered any time after 4:30 in the afternoon. I am amazed that he came to that conclusion, but that is what he thought.

Mr. LUKEN. How would you go about correcting that, now?

Governor CARROLL. Well, the first thing we have done was to remove the present fire marshal—that is the first thing we did.

Mr. LUKEN. Of course, this pattern of conduct occurred over two fire marshals.

Governor CARROLL. Not that particular pattern of conduct. The previous fire marshal had obviously engaged in what were probably illegal things.

Mr. LUKEN. More than just passive.

Governor CARROLL. Absolutely more than passive. That is a good word because I think it best describes the operation of the office under the current fire marshal, ineffective, passive, omitted acts they should have performed. They were good men—

Mr. LUKEN. But still, passive acts can be criminal in such a circumstance. We are not trying to describe his acts now, but since we are on this description, or philosophical question, in the case of fire protection enforcement passive acts, failure to enforce, such nonfeasance could be criminal.

Governor CARROLL. Well, that is probably correct under some extreme circumstances, but in these instances, in my judgment, in review of these men's records, they are honest men; there is no evidence that they have ever taken any bribes; there is no evidence that they have ever been politically interfered with in the performance of their jobs. They are dedicated to the public's interest—they were ineffective in the administration of the office. That is my greatest concern, that is why I have taken the action I did immediately.

Mr. LUKEN. We have some more questions, I think, on the furnishings, things like that. We will address that.

Governor CARROLL. Yes.

Mr. LUKEN. I would just like to conclude that I think you have put your finger on what happened, as far as I can see—that this fire was not only preventable, but was predictable—

Governor CARROLL. That is right.

Mr. LUKEN [continuing]. When you review the situation as it was known to many, many people. I do not know if you have anything to add as to why, over that period of time, over 6 years, when so many people knew about this situation, that nothing occurred?

Governor CARROLL. Well, I can say this to you, Congressman Luken, I had—as I told the press conference last evening—I had a sufficient uncomfortable feeling about this whole area of fire regulations and protection that I encouraged a friend of mine that I went to college with, who has a civil engineering degree, to come into the State government; and I encouraged the commissioner of insurance to hire him; that is Mr. Bob Estep who is with us today. Mr. Estep went to work on May 1, 30 days before this fire occurred.

Indeed, we are going to try to correct the mistakes that existed in our operation in the fire marshal's office in Kentucky and their relationship with the commissioner of insurance. But I cannot, in doing that, point the finger at Mr. Southworth or his employees as I point the finger directly at the owners of Beverly Hills, and at the former fire marshal, Mr. John Calvert who so obviously interfered with the normal operations of the office, and for whatever reasons Mr. John Calvert, the former fire marshal might have done, took the matters in his own hand and illegally approved some plans and specifications that had 10 defects, that were never corrected.

Mr. LUKEN. Governor, I just have one other thing, something else that troubles me a little in this report, and that is contained on D-26. Inspections conducted is the subject.

The records of the City of Southgate indicated inspections were made at Beverly Hills Supper Club by the Southgate Volunteer Fire Department. These inspection reports show conditions at the time of the inspection and recommendations for corrections to be made. They also contain letters and correspondence.

On September 7, 1977, the City of Southgate fire inspector was contacted for the purpose of being interviewed. It was agreed the inspector would submit to an interview. At that time the City Attorney of Southgate was contacted and stated that the inspector could be interviewed with attorneys present. The City Attorney was then advised that an interview time had been set up. The City Attorney then refused, stating he was busy and that another attorney assisting him was also busy. Therefore because of the refusal of Southgate's fire inspector, at the direction of the City Attorney to be interviewed, no information has been included as to recent inspections at the Beverly Hills facility.

Now, that is a very significant omission, it seems to me, in your investigation, in the State's investigation. I am wondering what efforts were made to obtain those reports, other than this simple request, and what ability you have to obtain information.

Governor CARROLL. Congressman Luken, I apologize to the committee that I did not point that out at the beginning. I did at the press conference last night and I just forgot it today. That is inaccurate in the conclusion that it seems to come to. Dr. Lewis will speak to that further and will be ready to take your questions in that regard. He gave that explanation last night at the press conference. There is an explanation, and Dr. Lewis will give you the details.

Mr. LUKEN. Maybe we can come back to it at that time. I can see that it troubles you, as well.

Governor CARROLL. It does indeed.

Mr. LUKEN. That is all I have at this time. Thank you very much, Governor, for your very excellent testimony.

Governor CARROLL. Thank you, Congressman Luken.

Mr. ECKHARDT. Mr. Breckinridge?

Mr. BRECKINRIDGE. Mr. Chairman, I have no questions of the Governor. I want to take advantage of this opportunity to thank him and his staff for what I know has been a time-consuming experience. I spent some time with Commissioner Brandenburg and Jack Hall at the scene, and I know that for approximately 72 hours those gentlemen saw no sleep or rest. I think the nature of this report indicates, Governor, the attention that the Commonwealth has accorded it, and I look forward to studying it further.

Mr. Chairman, I would just like to raise one question and then make a suggestion, if I might. On page H-15, a hypothetical "why," "why Beverly Hills" is posed. And the report reads, I think significantly and perhaps constructively:

Certainly part of the answer lies in the common phenomenon that for most of us fire is not personalized and is instead perceived as a very unlikely occurrence that happens to others. This often produces an apathetic attitude that subverts fire prevention education and obstructs practical application of fire protection knowledge.

Writing in 1967, Percy Bugbee was prophetic when he wrote, "Could there be another Coconut Grove today? Unfortunately," he said, "the answer must be yes."

I think the same question and the same answer, Governor, appears to us today. I would like, if I might—because of the extensive work that has gone into this—just make one observation. To the extent that the Commonwealth of Kentucky profits by this experience, and I feel certain that it will, the answer to that question is going to be a resounding "no." Unfortunately, from the point of view of the Congress, that is but 1 of 50 States.

I think that your staff—and I am thinking particularly here of Dr. Lewis who has made an exhaustive legal study of the problem and has, I suspect, the interagency relationships—have a major contribution to make to the Congress as to how administratively, and perhaps legally, this matter might be resolved in a way that hopefully will point out directions for us nationally that will avoid the recurring results of apathy because the fragmentation of decision-making, the fragmentation of law enforcement administration—as my colleague, Mr. Luken, pointed out—throughout the country; the fragmentation of our local political subdivisions, that almost demands this process, is such that resolving what happened here will be absolutely useless unless we learn the lesson of application elsewhere.

I know that the Governor and his staff will cooperate in directing Congress' attention to suggested solutions, and I look forward to working with them. I thank you very much.

Governor CARROLL. Thank you, Congressman Breckinridge.

Mr. ECKHARDT. Governor, I am going to have a few questions a little later to some of your staff, and I would like to start with a very few questions with you.

Governor CARROLL. Yes, sir.

Mr. ECKHARDT. I think your situation here in Cincinnati, or these situations existing in Cincinnati and in your State, are not different from the situations that exist in my constituency and the city from which I come—that is, Houston—except for the interstate aspect of your situation. We, too, have about 20 or 30 municipalities, and indeed, we have the further complexity of a navigation authority and ship channel in the area. I think these things do create a tremendous

problem. I am not about to suggest any final answer to the question, but I recall a number of years ago when a ship, the *AMOCO Virginia* caught fire in the Houston Ship Channel. There was the navigation authority with a couple of fireboats, maybe one at that time, that had certain responsibility. The city limits of Houston followed the bounds of the ship channel, but the ship channel went through several other municipalities like Pasadena. So, the final result was that it was not quite clear who had the ultimate responsibility. Everyone did their best, and some did their heroic best—like a fireman who slipped and fell into the blazing hold of the ship.

But the problem seems to me to be partially, what can be done to establish an effective method of inspection, prevention, and firefighting in a situation in which there is a great disparity of expertise, of monetary resources, of personnel, and so forth; in a situation where there is a kind of joint responsibility, that is sometimes an invitation to "pass the buck" as between such merging areas. I am saying this not with respect to your various governmental agencies, or the situation as between Kentucky and Ohio, but because I know from personal experience and from investigations of this committee that this situation is certainly not unique.

But do you have any comment as to what ought to be done to remedy this situation? I know that our concepts of governmental authority, our concepts of a kind of home rule, and of the right of the State to control such matters all bear on our traditional thinking about the subject, but it does seem to me that there should be a way to afford a more uniform protection over our whole municipal complex than that which we have today.

Governor CARROLL. Well, Mr. Chairman, I think that your point is so well taken that it is accepted here where the officials of Southgate, who are obviously concerned, honest, dedicated public servants, but who because of the limited financial resources they had in their small community, had part-time employees with part-time small salaries, responsible for major areas of concern to the people of that community. As such, those individuals were not fully available to do their jobs. They were not trained, particularly, in their jobs, and thus we find that the kind of thing you described was in existence in this particular situation.

They meant well. They had the responsibility legally to share in inspections with the State, approving plans and specifications, building codes on wiring, and so on; but they simply did not have the financial resources to do the job well, even had they known specifically what they should, or should not have done legally.

So, I think that we must recognize, and while we fully appreciate the right of local authorities to maintain their normal areas of police powers, of public concern, health and safety of their citizens; there are overriding circumstances that require specialized training—such as fires. Specialized training to examine installations such as wiring, combustible materials, construction. Training of employees of operations that require specialized training. We must of necessity admit to ourselves that these small local communities simply do not have the resources to do those kinds of things well. And as such those of us who more likely have the resources, that is the State, have the primary responsibility.

In that area, I must say that it is my judgment that the State of Kentucky should have that primary responsibility, respecting, as we do, the local authorities and their local interests. It is probably in the interest of the public welfare that such responsibilities be carried on by an instrumentality of government that has the resources to do it adequately.

Mr. LUKEN. Will the gentleman yield?

Mr. ECKHARDT. Surely; I will yield to the gentleman.

Mr. LUKEN. I think it might be mentioned at this point, that there is another aspect to it, and that is that businesses in constructing their facilities often do a little forum shopping—which lawyers are familiar with. They go to the areas where the code is the weakest, where they can get by the cheapest. We find that in Cincinnati, for example. I am sure you will find it in any large city where the codes are tougher, where it is more expensive to build, where the inspectors are on your neck all the time. I think this is a phenomenon we have to look at when we consider legislation.

Governor CARROLL. Your point is well taken. Congressman Luken, that is why your national standards are so vitally important. It insures safety to citizens nationally, but at the same time it insures that there is no advantage in a particular business locating in a particular locality; as a matter of fact, between States near State lines.

Mr. LUKEN. Thank you, Mr. Chairman.

Mr. ECKHARDT. Though this is practically so—and I think the point is extremely well taken—actually, at least legally, the municipality may establish standards itself, but those standards may not be less than those of the State; is that not correct?

Governor CARROLL. That is correct.

Mr. ECKHARDT. So, if there were some means by which there could be something like equal capability, as for instance with a State Department zoning the State with responsibilities on a State basis, you have the statutory undergirding of proper fire control; do you not?

Governor CARROLL. The point is well taken, that is the reason I keep my response to financial resources. If you had a community that had those financial resources to provide adequate protection to the public, then obviously, I think you would agree, that it is a waste of the taxpayers' money to duplicate that adequacy. That is duplicate it on the part of the State as well as the local unit of government.

But I believe what the chairman is suggesting is sound, that there be an underlying standard that the local community would have to show their ability to adequately enforce the law before the State would make that delegation of enforcement available to the local community. The Congressman is well aware that this is a principle that we utilize in a number of instances between our Federal partner and the States.

Mr. ECKHARDT. Exactly.

Governor CARROLL. For example, the new Federal strip-mining regulations that you just adopted in the National Congress will recognize the States to do the enforcement if we meet the Federal criteria for enforcement set out in the legislation.

Mr. ECKHARDT. And of course in the air and water legislation we generally delegate the authority within existing Federal standards

for the State not only to enforce the standard, but in large measure to participate in enacting the entire program.

Governor CARROLL. That is right.

Mr. ECKHARDT. Now, I am not suggesting necessarily that the Federal Government do that here, but perhaps the relationship between Federal and State government in that instance could constitute something of a pattern for the relationship between State and local governments.

Governor CARROLL. Municipalities, yes, sir.

Mr. ECKHARDT. Now, I note that the Kentucky revised statute, 227.220 requires the commissioner of insurance to enforce or aid with the enforcement of all laws, regulations and ordinances of the State relating to fire laws. He is also authorized to supervise and make periodic inspections of all property within the State. Thus, if the standards of safety would not be properly enforced, that would be a breach of the law which he is called upon by the statute to enforce.

So, I would gather that you presently have the statutory authority within state officials, so that if some manner of administrative enforcement were established, it could be carried out without real change.

Governor CARROLL. I quite frankly think that is true. I think our major thrust needs to be on the understanding on the part of our officials of what their power really is. As I say, there was some disturbing misunderstandings on the part of our fire marshal as to what he thought he could and could not do, including one point that I have not mentioned yet, and that is that he did not understand under the law, under Kentucky's law, that when new construction was proposed, that he could go back and require upgrading of existing facilities to meet the new criteria. He did not know he could do that, he said.

Mr. ECKHARDT. And he has broad authority under the Kentucky revised statute 227.230, which requires a State marshal to enforce and administer a number of provisions of Kentucky law, including the standards of safety.

Governor CARROLL. That is correct.

Mr. ECKHARDT. Now, the Kentucky revised statute 227.370 authorized the local fire chief, or a member designated by him for that purpose, to inspect all property to discover violations of, among other things, fire protection laws. I note that he is required to make inspections if he has reason to believe an unsafe condition exists in an occupied building.

In my reading of the statutes I could find no reference to the fact that local officials, such as those of Southgate, had primary responsibility for inspecting to assure that safety requirements are complied with. In fact, it seems to me this is a sort of joint responsibility between the local government and the State.

Am I right on that, or would you care further to amplify and comment on the point?

Governor CARROLL. I believe, Mr. Chairman, you have described it accurately. You will find a more thorough discussion of that beginning on page G-1, that shows the relationship between the city and the State. Your description is generally accurate.

Mr. ECKHARDT. I understand some of the political problems involved here. When I was in the Texas Legislature, I do not suppose

there could have been any power more jealously guarded than that of municipalities within a metropolitan complex, to retain their autonomy in many areas. I recognize that is a real problem. Perhaps it is a more jealous feeling of "Home Rule" today than there is even of States' rights. That is pretty strongly felt.

But it does seem to me that there has to be some degree of uniformity with respect to the application of fire codes, and with respect to the capability of meeting the dangers encountered by a fire. I am sure that the people of Cincinnati do not feel that they are less safe in one place in this urban area than in another. They feel the same inspection facilities, the same enforcement provisions, the same standards are being enforced—at least they did before this tragic incident. It seems to me we have a real challenge to try to make the dream of equal protection within a metropolitan area a reality, overcoming these political barriers that may be raised to confront us.

I am a pragmatist as far as political process is concerned. I am not as much concerned about holding some of the slogans and limitations on government as I am in trying to solve this problem. Yet, I do recognize that they are deeply felt political concepts of retention and ultimate authority. But it seems to me these could be overridden by continuing to permit the general political authority to govern, but affording some kind of State-regional responsibility upon the failure of a municipality to show that it could actually meet the standards required by the State.

Governor CARROLL. I think uniformity is first of all, as far as I am personally concerned, in the law as a matter of Federal concern—in the law, of what must be done. But when you come to compliance, I think it is essentially a State responsibility that should be shared by those local communities within the State who can show the reason why they are fully capable of carrying out the responsibility.

Mr. ECKHARDT. When we have hearings we are ordinarily dealing with legislation. Of course, Mr. Luken's legislation is extremely appropriate for the matter involved here because what he is calling for is an examination nationwide of the problem that your local situation has so dramatically shed light upon.

But, of course, there are several ways in which we could approach the problem. We could put some teeth in existing Federal laws with respect to minimum standards. We could afford a massing of information concerning the problems that we have been discussing here and make available a little more realistic a blueprint for a workable State, local, and Federal partnership. Or, we could follow several different courses. Frankly, this committee has not decided yet, that is the reason we are in hearings of this nature.

I was very interested in hearing you say that the question of some kind of guidelines—I assume guidelines that would be to a certain extent mandatory at the Federal level—would not necessarily be looked upon with resentment or opposition.

Governor CARROLL. That is correct.

Mr. ECKHARDT. There was one thing that has come to my attention through the report that I would like to ask a little further clarification on. There is some strange language, and I am not quite sure it is intentional.

My question is, to what was former Fire Marshal Calvert referring when he said he treated Beverly Hills, "In a special way because

Deputy Southworth had told him that he, Southworth, was going to persecute Schilling." That is on page H-1. I do not know whether that means "prosecute," or "persecute."

Governor CARROLL. No; I think he meant "persecute," Mr. Calvert did. I would just suggest in summary for the committee's general enlightenment that we are dealing with an appointed fire marshal at that point, who was of one political party; and a bureaucrat of long standing of an opposite political party.

Mr. LUKEN. If the gentleman would yield?

Mr. ECKHARDT. Certainly.

Mr. LUKEN. I do not think Kentucky has any "corner on that market," either.

Governor CARROLL. No.

Mr. LUKEN. That situation, I think, sometimes happens in Texas and Ohio.

Mr. ECKHARDT. That is right.

Well, there is also some testimony to the effect that a State Senator had conversations with Terrell, Boyd, and Greenwell, indicating that the State fire marshal's office was aware of violations of standards of safety at the club.

To what is Deputy Fire Marshal Boyd referring when he was asked about violations at the Beverly Hills Club and replies—in a footnote on page 113—"It was politics or something to that effect."

Do you have any idea what he meant?

Governor CARROLL. I assume—and we have all talked about that, and I assume we could ask Mr. Boyd for further clarification—but I assume he was describing the 1971 relationship between Beverly Hills and the fire marshal's office, at which time the plans and specifications were illegally approved, and of course they were never required to follow through.

Now, as far as I am concerned, the new fire marshal, Mr. Southworth, who had prior knowledge of the Calvert incident in 1971 because indeed, Mr. Calvert said, "You are going to persecute Schilling"; and at no point did Mr. Southworth follow up on his so-called persecution. He did not even follow up with normal, required legal inspections. So, obviously there was no intent on Mr. Southworth's part to persecute, and he would probably be a lot better off had he proceeded to persecute as he had been charged in 1971.

Mr. ECKHARDT. Thank you, Governor. If there are no further questions of the Governor; we really appreciate your time.

Governor CARROLL. Thank you, sir.

Mr. ECKHARDT. Thank you again for making it so generously available. I am going to excuse you for your other duties.

Governor CARROLL. Thank you very much, Mr. Chairman, Congressman Luken, Congressman Breckinridge; we deeply appreciate the committee's concern in this area.

I will leave with you Commissioner Ken Brandenburg of the Kentucky State Police; Mr. Ovid Lewis, my special counsel, and Mr. Jack Hall, my chief executive assistant, and the entire investigative team, who is with them. So, they are prepared to spend whatever time the committee desires at this point.

Mr. ECKHARDT. Thank you very much.

Governor CARROLL. Thank you, Congressman.

Mr. ECKHARDT. This has just been raised by another member; did you gentlemen have formal testimony to offer?

Mr. LEWIS. No.

Mr. BRANDENBURGH. Mr. Chairman, just a couple of comments, if I might, please.

Mr. ECKHARDT. Surely, proceed.

Mr. BRANDENBURGH. I do not think in the record of this hearing we have as yet proper acknowledgement of the assistance and counsel that the Commonwealth has received from certain national agencies, and I would like to do that at this point, if I might, and say that without such assistance and counsel it would not have been possible to produce a report that was as comprehensive as this report is.

I am specifically referring to two agencies of the U.S. Department of Commerce, the National Bureau of Standards, and the National Fire prevention and Control Administration; these two agencies assigned staff members to our onsite investigative team shortly after the fire itself, and continued to provide assistance to us since we left the site and have been involved in the paperwork investigation.

Also, the National Fire Protection Association, which is a contractor of NFPCA and NBS, has provided invaluable assistance, both to the special counsel and to our investigative team in these conclusions. I think that ought to be a matter of record in this hearing, that there has been on a working basis exemplary Federal-State cooperation, and without that cooperation it would not have been possible to have produced this report on as timely a basis, and with the substance that you have before you.

Thank you, Mr. Chairman.

Mr. ECKHARDT. Thank you, Mr. Brandenburg. Mr. Lewis?

Mr. LEWIS. I wondered if I could make just a couple of comments.

Mr. ECKHARDT. I have a couple of questions of you, also; so, just proceed.

Mr. LEWIS. First of all, this report is not actually complete in the sense of a lot of loose ends. We have something for you today, certain aspects that need to be followed up and will be followed up. You already put your finger on three of these omissions in the report.

On G-14, the safety standards, the administrative regulations of the State of Kentucky, do place the primary responsibility for inspection, safety inspection, under the jurisdiction of the local fire chief. Now, he can delegate that, and he did in this case to Capt. John Braun of the Southgate Fire Department. We have not extensively questioned Captain Braun. Originally I thought we had his testimony, but we have the testimony of his father, who is also in the fire department.

An arrangement was made to take his testimony on Friday evening, a week ago. And it was at that time that it was indicated by counsel for the city that he wanted to be present; that he could not be available that evening, and Mr. Braun, who works as a schoolteacher, could not be available during the daytime. Therefore it was impossible to meet with him.

Technically that meant there was refusal as far as getting that testimony into this report. We do plan to examine Captain Braun and go into the question of the inspections made by Southgate, concerning particularly the electrical equipment and alike installations

there at Southgate. So, that is an omission that will have to be followed up on.

Mr. LUKEN. Will the gentleman yield?

Mr. ECKHARDT. Surely.

Mr. LUKEN. What report are you talking about, now? You say "recent" in the report. The recent inspections and recent records from Southgate are not available and not in the report.

Mr. LEWIS. They are available up to 1976. We have them for each year. They went in and inspected Beverly Hills, and they are in the appendixes which are available to you today here.

Mr. LUKEN. "Recent," then, is 1977; is that what you are referring to?

Mr. LEWIS. That is correct, sir.

Mr. LUKEN. Well, are the Southgate officials here today?

Mr. LEWIS. I do not know, sir. I believe the mayor is here. Mayor Paul is here, yes.

Mr. LUKEN. You do not know whether he has brought those reports with him.

Mr. LEWIS. Those reports are in our appendixes.

Mr. LUKEN. 1977, I mean.

Mr. LEWIS. The most recent one? Just a minute. I am not sure, Congressman, but either right at the end of 1976 or the beginning of 1977, there were such inspections made, and you will see the report indicates the electrical system was shipshape, in good condition; this sort of thing. There is no indication of any of these major violations being discerned by the local inspector. That is why we want to follow up and ask him what types of things he looked at.

Mr. ECKHARDT. I am concerned about your statement concerning this question of primary responsibility. I asked the Governor the same question, and I gathered that really the term "joint" is a little bit more appropriate because, as I understand it, the State fire marshal serves under the Commission. And the State law says that the Commission shall enforce and administer the provisions of the Kentucky revised statute 227.20 to 227.400, and rules and regulations issued thereunder which, I understand, include the safety standards.

Now, the local deputies have authority to inspect all property for the purposes of ascertaining and causing to be corrected any conditions likely to cause fire loss, or discovering any violation of a law or ordinance relating to fire-prevention protection under the Kentucky revised statute 277.370.

But they are given authority, and it seems to me that the Commissioner is absolutely required mandatorily to enforce the law. Of course, this may be a "quibble" over terms and I guess it does not make all that amount of difference as to precisely how we interpret them, except that it seems to me, as the Governor has said—as I understood it—that there ought to be an established process of enforcing the authority at the State level unless a delegation is made to what is discovered to be a responsible local authority that can accomplish the same objective.

I really raise this more as a question of what might be desirable. Far be it from me to tell you people in Kentucky and Ohio what is the best way to proceed. I draw most of my inferences from what the Governor said, as a matter of fact.

Mr. LEWIS. I concur in your assessment. All I am saying is that the statement about where the primary responsibility comes from in terms of inspections by the local officials is from this safety standard promulgated by the fire marshal's office.

Mr. ECKHARDT. Yes.

Mr. LEWIS. Of course they have the duty to enforce the laws, including the local laws. As you see from the testimony, they were not even aware, or did not even check to see if the local ordinances set more stringent standards than those of the safety standard.

Mr. ECKHARDT. Now, there are a few other things that I would like to ask you with respect to the report, more or less amplifying or clarifying points that were raised in our inspection of the report.

On page E-5 the report states unexplained smoke was reported emitting from certain areas as early as 6:30 p.m. Who reported the smoke, and to whom was it reported?

Mr. BRANDENBURGH. I believe I can answer that, Mr. Chairman.

Mr. ECKHARDT. Mr. Brandenburg?

Mr. BRANDENBURGH. We interviewed and took direct statements from approximately 630 individuals, and then submitted mailed questionnaires to another 900 or so individuals. During the interviews, and included in the questionnaire were questions that asked about the first time smoke was observed. The specific 6:30 p.m. reference, which was the earliest reference, was by a patron who said he had been driving up the hill to the club and had seen the smoke, black smoke as I recall, coming from the roof. We first thought it had been steam and the question was asked, and he said, "No, black smoke."

That is a single report that identified 6:30 p.m. In the time continuum that approaches 9 p.m. there were several reports of smoke emitting observed from the outside of the building.

Mr. ECKHARDT. They were all observations from the outside by persons not connected with the management.

Mr. BRANDENBURGH. That is correct.

Mr. ECKHARDT. Not connected with the operations of the club.

Mr. BRANDENBURGH. Yes, sir. In fact, we have done a summary of that time line and there is a fairly regular kind of curve. I am not a statistician, but it is interesting to see those incidents build on the time line where smoke was actually observed on the outside of the building by persons approaching the building.

Mr. ECKHARDT. And when was the first time when someone connected with the operation of the club testified any fire or smoke was observed?

Mr. BRANDENBURGH. There are several times that were given, and the differences in times related, of course, to the individual's watch, or their own perception.

Mr. ECKHARDT. They were rather close together, though?

Mr. BRANDENBURGH. It appears that somewhere shortly after 8:30 in the evening, somewhere between 8:30 p.m. and 8:40 p.m. there was some notice.

Mr. ECKHARDT. When was it that actual smoke or fire burst into the Cabaret Room?

Mr. BRANDENBURGH. You asked about the Cabaret Room?

Mr. ECKHARDT. Yes.

Mr. BRANDENBURGH. That would have been at approximately 9 o'clock p.m., or shortly thereafter. The initial discovery of smoke was a very general sort of phenomenon and not localized to the Zebra Room itself. A short period of time after the smelling of smoke in the front area of the club a person actually opened the doors of the Zebra Room, apparently about 8:40 p.m. And our conclusion that the warning time was insufficient and in fact 20 minutes had elapsed was based on the approximation of an 8:40 to 8:45 actual discovery of heavy smoke in the Zebra Room. At 9 o'clock, or 9:05 Walter Bailey, bus boy, gave notice from the stage of the Cabaret Room.

Mr. LUKEN. Would the chairman yield?

Mr. ECKHARDT. Surely.

Mr. LUKEN. Do we know without dispute that the notice in the Cabaret Room was made by the bus boy at 9:05, and that that was the first notice?

Mr. BRANDENBURGH. I think you could conclude that, Congressman Luken.

Mr. LUKEN. I have asked you a double question. We will start off with, do we know without any question that his notification was 9:05 p.m.?

Mr. BRANDENBURGH. Again you are trying—

Mr. LUKEN. How did you ascertain that time?

Mr. BRANDENBURGH. We ascertained it in part based on the actual travel of the bus boy through the club. You see, he came from the Cabaret Room and watched the early stages of the fighting of the fire. In fact, all they were doing was discharging CO₂ extinguishers into the heavy smoke. He went from the Zebra Room here, in front of the club, across to the kitchen area to try to find another extinguisher and came back.

Mr. LUKEN. What was the starting time?

Mr. BRANDENBURGH. Well, the starting time would have been somewhere after 8:40 when the door of the Zebra Room had been opened and heavy smoke was discovered.

Mr. LUKEN. Well, then we are really talking about an approximate time of 9 p.m.

Mr. BRANDENBURGH. That is correct. I do not think it is possible, it will never be possible to say exactly. The only precise time we have—

Mr. LUKEN. Well, there were 1,300 people in that room, somebody might have looked at his or her watch.

Mr. BRANDENBURGH. We have many, many statements.

Mr. LUKEN. I do not think that is the first thing you do when somebody says "fire."

Mr. BRANDENBURGH. We have many statements and asked several questions in the questionnaire about the time smoke was noticed, or the time warning was given. There is a complete range of responses. 9:01 p.m. is the recorded time when the dispatcher received the call. 9:04 p.m. is the time the first unit of the fire department arrived at the scene. They originally set up in front, the southend of the building, and then heard that people were trapped in the Cabaret Room and went around to the back. So, the units got around to the back probably in a matter of 3 or 4 minutes. It is quite a large building and takes a while to even run around it.

Mr. ECKHARDT. But that is the time the fire department was notified and the time they got there, does that necessarily set the time when the people in the Cabaret Room were notified? It must have been around that time.

Mr. BRANDENBURGH. Mr. Chairman, it appears that Mr. Bailey left the area of the Zebra Room just about the time of the flashover, this phenomenon that has been described as "flashover," by his own testimony; and by the testimony of others.

Mr. LUKEN. He was aware of the flashover?

Mr. BRANDENBURGH. I do not know that he would describe it that way, but he watched the sequence of firefighting for several minutes and attempted to get another extinguisher. He came back and watched before he went back to the Cabaret Room and went up on the stage.

Mr. LUKEN. I see. So, then you fixed it from that point.

Mr. BRANDENBURGH. That is correct. Also, at the time of the flashover apparently one of the owners, a younger Schilling, shouted, "Get the people out." At that point the call was made to the fire department.

Mr. LUKEN. And at that point the busboy went to the Cabaret Room?

Mr. BRANDENBURGH. That is what we concluded; yes, sir.

Mr. LUKEN. After he notified over the microphone the patrons of the Cabaret Room, what then happened on the stage, did the show continue; or do you know?

Mr. BRANDENBURGH. As I understand from Mr. Bailey's statement, he kept the microphone for a few seconds, or a few minutes, and pointed out exits on each side of the room. I understand that the comedians took the microphone back. I understand that one of the comedians asked the people to be calm and use the exits as directed. That, essentially, was the substance of the conversation there.

I think it probably is critical to note that detailed analyses have been conducted by a senior research engineer of the National Bureau of Standards on the configuration of the corridor which leads from the Zebra Room to the Cabaret Room. This analysis included an analysis of the actual material that was present in the hallway. The estimate has been made that the fire moved the entire 150-foot length of that corridor in from 2 to 5 minutes.

So, as you look at the diagram here, what you have occurring is a fire moving down the hall which very quickly and effectively blocks two of the four exits out of the Cabaret Room.

Mr. LUKEN. Do we have detailed information on the materials in that hallway?

Mr. BRANDENBURGH. Yes, sir, we do.

Mr. LUKEN. Is that in the report?

Mr. BRANDENBURGH. It is in part of the report, and then the appendixes to the report. The most detailed statement is this statement prepared by Mr. Bright of the National Bureau of Standards staff; it is in the evidence.

Mr. LUKEN. Is it attached to the report?

Mr. BRANDENBURGH. Yes; it is here in the boxes available to you for your use.

Mr. LUKEN. I presume it shows that if the furnishings in that hall were of a different quality and more fire retardant, that the fire would have been impeded.

Mr. BRANDENBURGH. Yes, sir, it concludes that.

Mr. LUKEN. I might put in a little plug, that the legislation which we are sponsoring is an amendment to the Flammable Fabrics Act, so that the interior furnishings are very important in a situation like this.

Mr. BRANDENBURGH. You might be interested, Congressman Luken, that Mr. Bright has concluded the wall paneling, the decorative wall paneling, was the major culprit here, even though the carpet probably sustained the combustion, given the high level of radiation from above, the actual culprits in this case were the decorative wall panels which were essentially paper veneer and had a flame spread that might have been as high as 200 on this ASTN index, which is about the same flame spread this piece of paper has [indicating].

Mr. ECKHARDT. I am not asking you in detail about the things that are in the report, but there are a few things I would like you to clarify about the report.

Mr. BRANDENBURGH. Yes, sir.

Mr. ECKHARDT. In a December 2, 1970, memorandum on the Beverly Hills plans, Deputy Fire Marshal Boyd indicated concern that exit and emergency lighting be properly installed. There were reports that the emergency lighting failed during the fire. Was there properly installed and operating exit and emergency lighting in the club?

Mr. BRANDENBURGH. It appears that the inspection of emergency lighting had been done in detail, and the 21 units—I believe that is the number—according to inspection records were there and were functional.

Now, as we have discussed the various phenomena of the fire with fire science professionals, what we have concluded is that in fact the heavy black smoke may have just completely obliterated the high-level—high up on the wall—emergency lighting.

Mr. ECKHARDT. Where were the emergency and exit lights located?

Mr. BRANDENBURGH. I do not know.

Mr. ECKHARDT. Were they in connection with that block to entrance there, at the end of the corridor?

Mr. BRANDENBURGH. I will have to ask for some assistance on that. I am not sure we have the detailed location of the exit doors and lights.

FROM THE FLOOR.¹ What was the question?

Mr. ECKHARDT. The question is, where were the emergency and exit lights located in the Cabaret Room?

FROM THE FLOOR. I do not know, sir.

Mr. ECKHARDT. What I am really getting at is that this would be the door normally used had it not been blocked by the fire. Apparently there would have been some lighting in this area.

FROM THE FLOOR. Yes. Depending on square footage and how they have been placed, there would have been three or four.

Mr. ECKHARDT. There were some here, too [indicating].

FROM THE FLOOR. Do we have a sketch?

Mr. ECKHARDT. That is all I have. Mr. Luken?

Mr. LUKEN. Gentlemen, I would like to refer to—I think it is is page H-11—and there is a quotation there of Deputy Boyd. It says, "You still have a copy of the plans?"

¹ Mr. Earl Conover, a deputy fire marshal of the Commonwealth of Kentucky.

"No, sir, our archive records show that the plans were missing. They were never sent to archives. Our records also show the plans were never given a file number."

Now, have those plans been located?

Mr. BRANDENBURGH. No, sir, they have not.

Mr. LUKEN. And we do not have Mr. Boyd to discuss it.

Mr. BRANDENBURGH. No, sir.

Mr. LUKEN. Have you questioned him about it?

Mr. BRANDENBURGH. Yes; we did.

Mr. LEWIS. Yes; we did. Mr. Calvert, the fire marshal, then took a special interest in the case and took the case away from him. No log-file number was given, and that in itself was unusual. In fact, but for his keeping the records himself, there might not have been any of this material in the files there in the fire marshal's office.

We did question Mr. Calvert about this, and that is when he indicated to us, it was because Mr. Southworth had indicated he was going to persecute the Schillings, that he took a personal interest in the case and took it from Mr. Boyd.

Mr. LUKEN. The State fire marshal's file has a 5-year dead space, from 1971 to 1976, as far as inspections or new construction plans; is that correct?

Mr. LEWIS. That is correct.

Mr. LUKEN. I think it would be helpful if we could talk with the people involved, Mr. Southworth, Mr. Boyd, at some time; at least somebody would have an opportunity to question them about it.

Mr. BRANDENBURGH. Congressman Luken, we have statements from those individuals. They are here in the appendixes and will be available to you.

Mr. LUKEN. What were the official responsibilities of Mr. Southworth?

Mr. LEWIS. He was to enforce the law of the State of Kentucky. He was also to aid in the enforcement of the law, local ordinances and the like in regard to fire prevention and the safety standards and their ordinances.

Mr. LUKEN. Do we know what specific knowledge of the building and fire code violations at Beverly Hills Mr. Southworth possessed?

Mr. LEWIS. No; we do not directly. He indicated that the first time he was aware the Garden Room expansion had been added was on the evening of the fire. There is a problem here in communication. I asked him whether or not, given this situation, he planned to change his policy and he said, "No." He receives information only from his lieutenants if they feel it is significant enough to pass it on to him.

Mr. LUKEN. Well, now, there is a report in the file, in your report, that says Mr. Southworth said he knew of the violations at Beverly Hills, and that he was not doing anything about it because the higher-ups were stopping him. What did you do about that?

Mr. LEWIS. That was not his statement; that was a statement made by Mr. Easterly, if you recall.

Mr. LUKEN. Yes, with reference to Mr. Southworth.

Mr. LEWIS. That is correct.

Mr. LUKEN. Did you ask Mr. Southworth about that?

Mr. LEWIS. Yes; we did. As indicated in the report he indicated that he could not recall any such conversation.

Mr. LUKEN. He did not either affirm or deny it?

Mr. LEWIS. He said he did not recall such a conversation.

Mr. LUKEN. Was he asked to affirm or deny?

Mr. LEWIS. Yes, but he just said he could not recall.

Mr. LUKEN. That is unusual, is it not? If he had made such a statement he would not forget it, would he?

Mr. LEWIS. One would think that is true. I noticed in the report also that former Fire Marshal Calvert cannot recall the incident concerning the ten violations, the discussion with the paper; nor can Mr. Martin.

Mr. LUKEN. Was Mr. Southworth asked whether in fact he failed to follow up on these violations because higher-ups stopped him?

Mr. BRANDENBURGH. Yes; he was. In fact, he issued a statement, I believe, on the 2d of June, when Senator Easterly first raised this question in the media. A copy of that statement is attached to Mr. Southworth's statement, which is in the appendixes to which you have access. In that statement, as I recall it, he said that since he has been fire marshal he has had no pressure to do anything other than enforce—

Mr. LEWIS. I think Congressman Luken is making a very good point. The questioning here was sequential, Congressman, and there were issues raised and taken into statements that do require going back and questioning. But, given the time constraints, we ran these sequentially. There are things that need to be followed up.

Mr. LUKEN. Did he tell you, does his report contain all of the information on any personal inspections, or visits that he made at Beverly Hills?

Mr. LEWIS. Yes; he did in fact visit Beverly Hills unofficially.

Mr. LUKEN. Unofficially.

Mr. LEWIS. Unofficially in terms of some conferences, or banquets, or something to that effect. We get that testimony from time to time, as you see here, people unofficially visited Beverly Hills. The local inspectors visited.

Mr. LUKEN. My question is, do we have specifically responses from him as to all of his visits to Beverly Hills?

Mr. LEWIS. I believe so. He indicated these were only when he was there unofficially.

Mr. LUKEN. Well, was he then questioned about what he found?

Mr. LEWIS. Well, yes, He did not notice any particular problems at the time he was there.

Mr. LUKEN. Of course, that says that he made no inspection.

Mr. LEWIS. That is correct.

Mr. LUKEN. That he only visited as a patron.

Mr. LEWIS. That is correct.

Mr. LUKEN. Walked through the corridors to the table, and exited. He would not have made any inspections for electrical violations, then, unless they happened to be right next to his table.

Mr. LEWIS. No way would he have been able to do that.

Mr. LUKEN. Now, as to electrical violations. We know this from your report, from the information we have, that this is a fire of electrical origin; and that apparently it was a working fire in the Zebra Room first. Working in the sense that it was working in the space between the lowered ceiling and the original ceiling, and that

there were very flammable materials in that construction; is that right?

Mr. LEWIS. That is correct.

Mr. LUKEN. I asked the Governor before, and he said that you would fill us in on just what are the details about that construction insofar as inspection permits, plans, whatever; what do we have on that?

Mr. LEWIS. I believe Commissioner Brandenburg can fill you in on the construction.

Mr. BRANDENBURGH. In terms of inspections, there were none, period. That is a very short answer.

Mr. LUKEN. No report of inspection of the Zebra Room improvements which were the cause of the fire.

Mr. BRANDENBURGH. That is correct.

Mr. LUKEN. All right. As far as plans are concerned, as far as permits are concerned?

Mr. BRANDENBURGH. There were none.

Mr. LUKEN. There were no permits.

Mr. BRANDENBURGH. That is correct.

Mr. LUKEN. Would a permit be required for such an alteration?

Mr. LEWIS. All substantial alterations require permits.

Mr. LUKEN. Can you say whether a permit would be required for this kind of alteration?

Mr. LEWIS. I believe it was substantial.

Mr. LUKEN. It consisted of lowering the ceiling?

Mr. LEWIS. No; it was substantial because it changed the occupancy. It previously had been a storage room, I believe, and was then changed into a party room. That would make it a substantial change.

Mr. LUKEN. Now, what about other electrical violations, what about electrical code violations in the basement?

Mr. LEWIS. We have photos—I believe Commissioner Brandenburg has some in his hand—and if you look at these photos even a layman would discern violations. We have fixtures hanging from coat hangers. We have wires stripped bare and placed into female outlets without plugs. We have pigtails, splices not in juncture boxes. We have an improper number of conductors.

Of course in the Zebra Room itself we know there was an electrical code violation. The wiring was not as required by the code. The electrician who installed that wiring has in fact admitted that it was improper.

Mr. LUKEN. Well, these are in fact aggravated conditions that you found, as far as the electrical violations are concerned.

Mr. LEWIS. Yes; they certainly are. One electrician indicated that he told Mr. Schilling the wiring was a mess, and he was lucky the place had not already burned down.

Mr. LUKEN. I believe that information was available to Mr. Tipton of the National Fire Protection Control Administration. He told me about that, but then it did not appear in his report. But you are saying it is in the appendixes here.

Mr. LEWIS. Is in fact in the report here, not in the appendixes.

Mr. LUKEN. And of course, these conditions are in the area which did not burn.

Mr. LEWIS. That is correct. But frankly, I think it is a valid inference. When you would see that type of condition in any part of

the building that would alert one to inspect more carefully throughout the entire facility.

Mr. LUKEN. We really do not know about the areas that did burn, and all of the violations there because they have been consumed; right?

Mr. LEWIS. We do know that the Zebra Room was improperly wired. We know that.

Mr. LUKEN. Did the fire affect the basement at all?

Mr. LEWIS. This part here apparently was minimally affected, I believe. [Indicating.]

Mr. LUKEN. Did the fire affect other areas of the basement?

Mr. BRANDENBURGH. There was some secondary fire that resulted from fire dropping through openings, such as air-handling openings. But there as very little fire in the basement. Almost all of the area was accessible immediately, and I assume is accessible today. The only fires, I am informed, that were in the basement were fires of secondary nature where the fire actually fell through openings in the floor.

Mr. LUKEN. Do you think the city of Southgate was given the assistance by the State fire marshal's office which was available?

Mr. LEWIS. No; it was not. In fact, they were really quite conscientious about trying to do the best job. I think a regulatory vacuum existed here because the local people wanted to do a good job, but they did not have sufficient knowledge of the codes and the like; whereas the States did not respond according to their duty to aid in the enforcement when requested. The mayor wrote and told them, "We are concerned about hazards there." They requested inspections and the like and they did not get proper assistance.

As is pointed out, they were not apparently even aware of what codes were applicable. I think that one of the first things the fire marshal's office has to do is to make sure they communicate to local communities precisely what the regulations require and what the codes are. Of course, as noted by the Governor, there was some confusion in the fire marshal's office as to what code itself was adopted in April of 1977.

Mr. LUKEN. We have some reference to the conditions in the corridor, in the hall, which facilitated the passage of the fire to the Cabaret Room, which caused the lethal effects. What examination have you made of carpeting, or upholstery?

Mr. BRANDENBURGH. The National Bureau of Standards, through their onsite representative, Mr. Bright, collected samples of materials, and then our personnel, our laboratory personnel from the State police, forwarded those samples to the National Bureau of Standards. They have been subjected to a number of analyses, including flame-spread tests, and including tests to determine residuals of various kinds of compounds that were there. I personally am not qualified to speak in detail. I think Mr. Bright's preliminary report, which was dated September 1, and I am sure the final report will be very, very specific as to his findings.

Mr. LUKEN. We do not have an expert here to speak on that?

Mr. BRANDENBURGH. No, sir; we have relied on Mr. Bright of the National Bureau of Standards.

Mr. LEWIS. There is one thing, Congressman, you might be interested in. We received an EPA report on Friday, indicating that a

fogging pesticide had been used each Monday in the club, and it contained Dursban, 22.4 percent, with a flash point at room temperature. We are still awaiting the laboratory report. There is apparently some residue of this material on some of the material there; we are still waiting on that report.

Mr. ECKHARDT. I am interested in this question of decorations along that hall that were extremely flammable. They were not actually installed portions of the structure of the hall, were they?

Mr. BRANDENBURGH. It was decorative paneling, and essentially, as far as we have been able to determine, in that hallway, with the exception of some mirrors that were placed back against the wood paneling, that was the only component present. Now, that paneling was a pressed board, hardboard-type paneling with a paper finish on it. It looked very elegant; it looked as if it were rosewood or mahogany, or something; but it was simply paper on the hardboard paneling. Some of it was three-sixteenths of an inch thick; some of it one-quarter inch thick on wood furring strips. We are not aware of the presence of any hangings of any sort, pictures, or curtains, or drapes, anything like that.

Mr. ECKHARDT. Thank you very much.

We have present in the room Mayor Kenneth Paul, the mayor of Southgate, who has indicated he would be available to answer questions. I thought, perhaps, since some of the discussion has centered around this, and Dr. Lewis has mentioned the question, Mayor Paul would like to come forward.

Mr. BRANDENBURGH. Mr. Chairman, this is Mayor Kenneth Paul, the mayor of the city of Southgate. Accompanying Mayor Paul is Mr. A. J. Jolly, an attorney who represents the city of Southgate.

Mr. ECKHARDT. Mayor Paul, we very much appreciate your cooperation, your willingness to be here. I thought you might possibly have some comments. I do not know of any specific questions that we have at this time, but there may be some developed.

Would you like to comment at this time?

STATEMENT OF HON. KENNETH PAUL, MAYOR, CITY OF SOUTHGATE, ACCOMPANIED BY A. J. JOLLY, LEGAL COUNSEL

Mayor PAUL. Yes, sir. I would like to apologize for the confusion about my appearing or not appearing before the congressional subcommittee hearing. There has been some confusion because part of our attorney firm was out of the city, and the recent passing away of our city attorney during this past weekend.

Mr. ECKHARDT. Well, mayor, we feel that you have been most cooperative, and we appreciate it very much.

Mayor PAUL. The comments I would like to make, from the outset of the fire that night at the Beverly Hills, I had gotten a call and was there within approximately 12 minutes after the fire sirens had gone off. Immediately by the nature of the fire, the largeness, and from conferring with our fire chief the immediate problem was that people were trapped within the building and needed assistance.

I immediately put in a call to Frankfort and requested the Governor's aid, and the aid of the State police. After arrival of the State police I immediately requested that they take over the complete control of the area. I also was requesting that a complete investigation

be made of the fire, on how such a fire could start and continue at a rapid rate, and how the amount of deaths could occur so quickly in that type of structure.

Some points that I would like to talk on, that I have made at the hearing here and also the briefing last night by Governor Carroll, that is that one of the main points that has come up, whether the city is a small city with limited resources, or a large city with a lot of resources, I am sure that businesses do locate in small areas because of the tax base; that is a key point.

However, I think the main problem that we had is that even with the State of Kentucky we had to get a professor of law to come and tell us exactly what are the fire safety codes, what are the laws, the State and the Federal laws. I do not think we really need any more laws on what are fire codes and what are building codes, but we need to make the laws so that laymen and people within those professions have the expertise to carry out the law because I am sure, whether it is a large city or a small city, you do not have the resources for everyone to have a professor of law on your staff to determine what the fire codes, the fire building codes should be. This, it seems to me, is one of the complex problems.

We have another restaurant within our city, and even after the fire we immediately went to the State and requested, What is the condition of this restaurant. We talked with three deputy State fire marshals asking about the question of sprinklers. One of the State deputy marshals said, "You need sprinklers in the building"; and one said, "No"; and the third one said, "I don't know."

So, it seems to me it is the complexity of the actual national fire codes themselves that seems to be a key problem in the problems that we have.

The other point is that during the total investigation it has been brought up that the city officials of Southgate—there was some problem that we did not cooperate. From the start of this investigation I made available to Commissioner Brandenburgh any and all records that the city of Southgate had. I would not release those to the press until I had the OK from the Commissioner because I wanted to protect the integrity of the investigation, no matter where the finger pointed and what direction it was.

I think another problem that has come up, there were many problems at the fire that night. I have never been asked to come before the State as far as during the investigation; we had the complex problem of many units there. We had the problem of even the Assistant Fire Chief from Greater Cincinnati coming to me, demanding to take over the fire scene, that our fire chief was inadequate, did not know how to handle the fire; and that I should appoint this gentleman to conduct the trying to stop the fire at Beverly Hills.

I think the report shows that the Southgate Volunteer Fire Department—even though it is a volunteer department—did the best human job that it could possibly do at the time. With a delayed fire call it is no different than a residential home. When someone puts gas around a building and puts a match to it, and waits 10 minutes to call the fire department, there is not a whole lot you are going to be able to do at that time.

I think as far as what codes were in effect, and what should have been in effect at the time, even as late as 1976 the latest addition to

Beverly, the Garden Room, we had reports and a memorandum from the State fire marshal's office that that building was in compliance. Being a small city, we heavily relied on whatever information we had from the State because we felt the State fire marshals have the expertise in the fire codes and would be reporting to us if there were violations.

The shocking thing, I think, in the report is the fact that the insurance company, apparently in that HUD program, knew of certain violations in 1975, 1973, 1972 and never has the city of Southgate had an official document sent to the city that the Beverly Hills Night Club was in any violation, and some serious violations which they apparently were in at the time. It was our understanding—that of the fire department and myself—that all building codes, fire codes in that building—that it was a fire-safe building at the time of the fire.

Also, I would comment, the Governor reported that there was a fire in 1974 of which there was no report. That was also a complete shock to myself and to the city because we had no report of such a fire at those premises.

I would say on behalf of our fire department, even in April of 1977, there was a letter sent to the city council and to myself directing a move-up system within our fire department on covering a fire at Beverly Hills. So, they were always concerned with the Beverly Hills facility of trying to be a fire-safe building.

That is all the comments I have at this time.

Mr. ECKHARDT. I think the one thing that should be made clear is that the various national building codes that you refer to, are not codes promulgated by Congress, but are those that are primarily prepared—for instance the National Building Code—under the aegis of American Insurance Association, and are promulgated by insurance and other commercial interests, along with State and local fire official, and then are adopted by States or municipalities. We really are not in a field of extensive and complex Federal regulations as such, but rather in a field in which these interests that I have described have set up what appears to be a desirable, uniform code. And then, if you desire to adopt it in a State or municipality, you can do so.

But the problems are still there. Perhaps they are even more difficult in that the code is not initially established as an official document.

Mayor PAUL. The shocking thing that I found out, that the city could be under one code and the State under another code; or you had the option to adopt, or not adopt the code. I was never ever at a full understanding and did not realize the complexity and what the options were about in the city at the time. I think one of the primary items that will come out of this is that, you know, we emphasize very heavily fire drills at schools, churches, and hospitals. And when we come to the private sector it is as if they are a secondary type entity, we request drills; but there is not the heavy emphasis we put on our schools, churches, and hospitals. I can remember in days, maybe a few years ago when everybody was in school, until the time you are up in high school, there is almost a mandatory once-a-year fire drill, or twice a year in the fire department there. When it comes to the private sector I would doubt, prior to this fire, that there were many industries that had any fire drills; that their employees know where the exits are. I think that is something that should be a mandatory situation by the employer to make sure that people who are hired are involved in a fire drill at least once a year in the facility, and that

they are made aware of where the exits are, and what to do in an emergency type situation, make that a requirement of the employer.

Mr. ECKHARDT. Now, as a mayor of one of the municipalities in this general complex I suppose you are fairly typical with respect to mayors here in that you are sort of like Cincinnatus, leaving the plow and serving Rome for a period of time, and not altogether leaving the plow, I suppose. You still have other employment, do you not?

Mayor PAUL. Yes, sir, very much so. I don't stay behind the plow all the time, but it is pleasant when I am. I am employed as a marketing representative for the local telephone company.

Mr. ECKHARDT. And that is pretty much the situation with most of the municipalities, is it not?

Mayor PAUL. I think that is a correct assumption. I would almost say, however, probably in the State of Kentucky only the first and second-class cities would have elected officials in probably the capacity of the mayor of being a full time elected official, based on the amount of salary. They would have to be the type of a city where they could have the type of salary that could support that position on a full-time basis. You are merely figure-heads, and you should have the type employees working for you who have the expertise in the fields to assist you.

Mr. ECKHARDT. I suppose the situation that exists in smaller municipalities does create some problems in maintaining personnel who have sufficient specialization to deal with the matters as complex as some of these codes.

Mayor PAUL. I would agree with that.

Mr. ECKHARDT. The Governor was suggesting that perhaps there might be some means by which the State would take the major responsibility, with authority to delegate upon a showing that the delegation would be to persons of technical experience sufficient to handle the problems. Would you have any recommendations or suggestions as to solving these questions?

Mayor PAUL. I would agree with the Governor that the State for Kentucky and the Commonwealth have the resources to hire the experts and do the enforcing. But I think it should be jointly with the municipalities. This can be done with certain requirements in the training of their manpower that they would have the expertise in order to do the inspections. If they cannot come up to the rating, that the State then would have the option and responsibility to do the complete inspection of the area. Or it could, in case of the municipality, pass on to the county; the county would take jurisdiction within a small city. I am sure in the State of Kentucky we are in an area with many small, little communities.

Mr. ECKHARDT. What about firefighting? There is some problem there, I would imagine. You do have—as we have in many of our small communities around Houston—a volunteer fire department.

Mayor PAUL. Excuse me.

Mr. ECKHARDT. In many areas around Houston, where I live, these are volunteers, rather than professional, fire departments.

Mayor PAUL. That is correct. Probably within Cambell County, out of the 13 cities, there are only two cities that have full-time firemen—approximately two or three. However, I would say of the City of Southgate, we are a city of 3,300 people, and our fire department is composed of 80 members, 55 are active. They are very effi-

cient in the work they do because even though they are volunteers, they do not become second rate because they are volunteer. I think they are much more efficient than if we had a full-time department. If we had a full-time department we would probably only have three to four men and it would just strictly be a job. They are volunteers in their own community, they live there, and their interest is much greater than is that of those who have hobbies of golfing or fishing. Their hobbies are working within the fire department. So, they do devote a lot of time and energy, and you get very highly qualified personnel within that department.

Mr. ECKHARDT. Is there also cooperation between the professional fire department of the city of Cincinnati and these various outlying communities? What about an emergency like this fire?

Mayor PAUL. The only comment I could direct to that is, in Campbell County and probably all of Northern Kentucky they have a moveup system where in major fires each city keeps moving up. In as large a fire as the Beverly Hills case you get units from all over Northern Kentucky, and we have the city of Cincinnati. Their safety director was on the air with me during the night of the fire and offered any and all personnel, whether it was fire or police personnel, which would be needed at the scene, and any and all equipment.

However, within our own vicinity they do have a very good moveup system, and when a fire occurs each city continues to move up.

Mr. JOLLY. "Mutual aid contract" is the way it is characterized.

Mr. ECKHARDT. So, you feel this works pretty well, and I think most of the evidence indicates that the tragedy which occurred could not have been averted once it had gotten underway, as was indicated here.

Mayor PAUL. I believe that would be correct.

Mr. ECKHARDT. You are really raising a question as to the adequacy of the system to one, afford knowledge, with respect to the technical aspects of inspection; and two, to make available persons of something like equal proficiency in actually making the inspections. It is, in other words, the inspection area that you are mostly concerned with, rather than the actual firefighting.

Mayor PAUL. Yes, sir.

Mr. ECKHARDT. Of course, we are all concerned with both, but I mean the failure seemed to fall in the inspection area. At least that would be illustrated here, I would think.

Mr. Luken?

Mr. LUKEN. Mayor Paul, how long have you been mayor?

Mayor PAUL. I have been mayor approximately 4 years.

Mr. LUKEN. Did you serve in the city government before?

Mayor PAUL. Yes, sir, 2 years. I was elected at age 24. I came into office as a council member in 1972-73. I was elected mayor in 1974.

Mr. LUKEN. So, you have been in elected office since 1971.

Mayor PAUL. No; I came in, in 1972.

Mr. LUKEN. In 1972?

Mayor PAUL. Yes, sir.

Mr. LUKEN. You came in as a member of the council.

Mayor PAUL. Yes, sir, member of the council.

Mr. LUKEN. So, as far as inspections are concerned, you have two inspectors who are part time; one is a building inspector and one is a fire inspector; is that right?

Mayor PAUL. Yes, sir.

Mr. LUKEN. And they both are employed by the city of Southgate.

Mayor PAUL. Indirectly. The building inspector is directly hired by the city of Southgate. The fire inspector is part of the volunteer fire department which is incorporated, and they bid for our fire safety each year. I do not directly give orders to the fire department; they are a separate entity from the city.

Mr. LUKEN. They take orders from whom?

Mayor PAUL. They take orders from their own fire chief. The volunteer fire department, as I said, is incorporated and is a separate entity from the city; it is not a city-owned department.

Mr. LUKEN. Would you explain that? Maybe I missed something.

Mayor PAUL. That is probably a bombshell because no attorney has discovered that fact yet. The setup in a lot of small communities is that the fire departments are incorporated; they are an entity within themselves. Even though it is called the Southgate Volunteer Fire Department, they could have any name because it is not run by the city of Southgate. The city of Southgate—

Mr. LUKEN. Has no control over it?

Mayor PAUL. No, sir. The city of Southgate puts a bid out each year for their fire safety.

Mr. LUKEN. So, it is a contract.

Mayor PAUL. Yes, sir.

Mr. LUKEN. Well, you have control over whom you contract with.

Mayor PAUL. Yes, sir, we contract with them.

Mr. LUKEN. How long a contract is it?

Mayor PAUL. It is 1 year at a time; it is renewable each year. We advertise for a bid each year.

Mr. LUKEN. So, the fire inspector is then appointed by the corporation?

Mayor PAUL. Yes, sir.

Mr. LUKEN. Who is the fire inspector now?

Mayor PAUL. Capt. John Braun.

Mr. LUKEN. How long has he been such?

Mayor PAUL. I am not sure.

Mr. LUKEN. As long as you remember, as long as you know?

Mayor PAUL. I cannot comment because I am not sure how long he has been in that capacity as the fire inspector.

Mr. LUKEN. Was he there in 1972 when you came in?

Mayor PAUL. He was just a fireman who joined the fire department at that time. I do not believe he was inspector.

Mr. LUKEN. That fire corporation, what relationship does it have to the State fire marshal's office, as far as you know?

Mayor PAUL. As far as I know, their jurisdiction would be, they are making inspections; they have a amount of fire drills within the city; they provide the fire safety. Any problems that normally arise, they would take those and call in the State fire marshal's office.

Mr. LUKEN. Does the State of Kentucky have a board of building standards—I ask this from the panel—or some similar board that determines the capability of a building department, say, to operate? Or is that strictly left to the municipality?

In other words, the city of Southgate has a building inspector—we will get away from the fire since that seems a little more complicated. It does have a building inspector appointed by the city of Southgate.

Does that building inspection department have to be certified by the State?

Mayor PAUL. To our knowledge, no.

Mr. LUKEN. I am aware that in Ohio the city of Cincinnati almost lost its building department because the State found in the area of fire that the inspections were not up to snuff, the code was not up to snuff. There was a big controversy about that. So, that is possibly a ramification the State of Kentucky might be considering.

On the idea of laws, it seems to me, Mayor, that some modification, or some clarification, ought to be in order. You have not been clear on what laws were in effect as far as fire is concerned, fire inspection and fire protection; were you?

Mayor PAUL. As far as exactly what law was in effect at the time, I would have to refer that to my legal staff, Mr. Jolly, because at the time of the fire itself I would probably not know what fire standards we were under at the time.

Mr. LUKEN. Do you know what it is now?

Mayor PAUL. No, sir.

Mr. LUKEN. Do you have anybody in your city who does?

Mayor PAUL. Yes, sir.

Mr. LUKEN. Your attorney?

Mayor PAUL. Yes, sir.

Mr. LUKEN. Anybody else?

Mayor PAUL. I am sure that our attorney has gone over it with our fire department and our building inspector in a complete revision within that department.

Mr. LUKEN. What about your records? There has been some question, we have had testimony and reports that the State fire marshal's records of inspection of Beverly Hills are missing, and there is a dead space between 1971 and 1976. Are there any records up until 1976 until the recent ones on the inspections on the part of the city of Southgate?

Mayor PAUL. That I would have to refer to our fire chief; he has all the fire inspection documents. What they do, the fire department gives the city of Southgate an annual report on what has occurred during the year, and the annual report just makes a summary that all inspections have been made, and the amount of drills that have been made. I do not get individual copies of inspection reports.

However, after the fire, in looking at some of the reports with the fire chief, I have seen numerous reports on where there had been inspections within the building.

Mr. LUKEN. Would you be willing to submit them to us?

Mayor PAUL. Yes, sir.

Mr. BRANDENBURGH. They are a part of the appendixes, Congressman Luken.

Mr. LUKEN. But not the recent ones.

Mr. BRANDENBURGH. They are all here, as far as Southgate inspections are concerned.

Mr. LUKEN. I think—and correct me if I am wrong—I think that is in conflict with what we discussed a little earlier in the hearing. The recent reports referred to in the report itself, the recent inspections, are not available; 1977, and going back to 1976.

Mr. LEWIS. I think we indicated they were not in the report but in the appendixes.

Mr. BRANDENBURGH. Yes; and we have not interviewed Captain Braun himself about the nature of the inspections. But there are reports here—I am flipping through them now—that relate to 1974, 1975 and 1976.

Mr. LUKEN. Is this Captain Braun going to be interviewed?

Mr. BRANDENBURGH. Yes, sir, he is. Dr. Lewis explained that he will be interviewed.

Mr. LUKEN. That is Captain Braun of the fire department.

Mr. BRANDENBURGH. That is correct.

Mr. LUKEN. And we cannot ask Mayor Paul whether he is going to be interviewed because that is a separate corporation; right?

Mayor PAUL. Legally it is a separate corporation, yes, sir.

Mr. LUKEN. You have every confidence that he will be interviewed.

Mayor PAUL. It is my understanding that Captain Braum has been interviewed once by the State, and that when they had requested the second time to interview him it was because of a problem of our attorneys representing the city in Federal court at that time. The city of Southgate, I want to make it 100 percent clear that our fire chief, our building inspector, and any and all personnel have given their testimony to the State and have cooperated 100 percent.

Mr. LUKEN. Well, Mayor, of course hindsight is always better than present or future anticipation. Hindsight is a nice thing to have. But even aside from that, this is an appalling record that we have here, as the Governor described it, as the report describes. There was knowledge of problems going back to 1970-71. They were never corrected.

I am not pointing the finger at the city of Southgate now, but they were never corrected.

Let me just ask you about this. There are photographs here of conditions in the basement of Beverly Hills that are flagrant violations. Is there any comment you have about what might be done to avoid this happening again?

Mayor PAUL. Well, your saying "hindsight" is like trying to requarterback the game after the game is over. I think for future prospects, the only way to do it is in the codes themselves, trying to define or redefine that the State is aware of all codes, and that either through their staff, through the fire marshal's office, in conjunction with county or city level there are joint inspections; and the documents, and records, and responsibilities are kept at both levels of government.

Mr. LUKEN. You mean the responsibility would be on both?

Mayor PAUL. It should be.

Mr. LUKEN. At the present time we do not have any responsibility on either; do we?

Mayor PAUL. I think it is primarily just a complex matter. The experts that were in office were unaware of the violations of the code, I think the Governor stated in the actual State fire marshal's office.

Mr. LUKEN. Well, if Beverly is rebuilt in Southgate, what kinds of inspections will there be, and who is going to do the inspections?

Mayor PAUL. Any large complex, or commercial complex of that magnitude, if it were ever built in the city of Southgate, it is my intention and direction relayed to the city council and their staffs that we would hire a full-time engineer on a contractual basis. And a civil engineer, along with the fire inspector of the city and the State of Kentucky would regulate the building of the structure and the

preliminary plans to the final day of the construction and opening day, if any such establishment, or an establishment of that magnitude were ever to be built within the city.

Mr. LUKEN. This would be an engineer to advise you on the building. But would it not be necessary for a fire marshal's office at least as large and powerful, and independent as the State fire marshal of Kentucky, would it not be necessary that such an agency be involved?

Mayor PAUL. I think the State fire marshal's office should be involved from the beginning to the completion of the structure.

Mr. LUKEN. And have primary responsibility?

Mayor PAUL. I would have to say, the overriding responsibility of that structure, I think it would be impossible for every commercial structure within the Commonwealth of Kentucky that the State fire marshal's office would be able to inspect it without some aid from the local municipality, or the county in which that structure is going to be constructed.

Mr. LUKEN. Thank you, Mr. Chairman. Thank you, Mayor.

Mayor PAUL. Thank you, sir.

Mr. DARROW. Can I ask some questions, Mr. Chairman?

Mr. ECKHARDT. Of course.

Mr. DARROW. Mayor Paul, I just have one question that goes to your response concerning to whom the fire chief, and the fire inspector for the city of Southgate are accountable. You said that evidently they are not accountable to you because they are a private corporation. Is that a correct representation of what you said?

Mayor PAUL. They are a legal entity within themselves, a private corporation. They submit an annual report to the city, a very extensive report, telling the amount of drill, the man-hours put in, and what they have accomplished within the year. This is a similar policy within many of the communities within our area.

Mr. DARROW. Well, to whom are they accountable if they are not accountable to you? Are they accountable to the State fire marshal under your reading of the State law?

Mayor PAUL. I have not conferred with the State law on that. I would refer that to our attorney.

Mr. JOLLY. They are not accountable to anybody except to themselves. They are accountable to the city according to the terms of the contract.

Mr. DARROW. The only reason I ask is that it is a matter of obvious concern as upon whom the responsibility falls for conducting inspections. The State law does say that the local fire authorities shall have the authority to inspect all properties for the purpose of ascertaining and causing to be corrected any conditions likely to cause fire loss. It also says that inspections "shall" be made as often as practicable. That seems to be a directive to local fire officials by the State, and would suggest that there is in fact a direct accountability to a State official.

I have no further questions.

Mr. ECKHARDT. Thank you very much, Mayor, and our thanks to the panel. You have been most helpful to the committee and we appreciate your cooperation.

Mayor PAUL. Thank you very much.

Mr. LUKEN. You say the appendix does have all the reports. Could we hold the record open if on examination we find the appendix does not contain all of those reports?

Mr. ECKHARDT. Gentlemen, would you make yourselves available for letters by our staff, if some additional questions arise out of your testimony?

Mr. BRANDENBURGH. Yes, sir.

Mr. ECKHARDT. With that assurance, the record will be held open, without objection, for such questions and statements. Thank you very much.

Mrs. Janetta Johnson? Please identify yourself for the record and proceed in your own way.

Mr. LUKEN. Mr. Chairman, I would like to have the house in order.

Mr. ECKHARDT. Point of order. Will the person who is speaking cease speaking at this time? If the conversation continues we will have to ask the person continuing to talk to remove himself from the room. Will you proceed?

STATEMENT OF JANETTA JOHNSON, EMPLOYEE, BEVERLY HILLS SUPPER CLUB

Mrs. JOHNSON. I have prepared a statement that will help me to explain to you what happened to me in the fire. I was working in the Cabaret Room on May 28, 1977, the night of the fire, and the following is my account of the events that happened before, during, and after the fire.

I had just finished helping the banquet waitress serve dinner to a party called "The AAA Club" from Dayton, Ohio. This group had one drink coming to them during the show, so I got my drink order ready from them. I went on back to the servicebar area and yelled, "Hey, what time is it?" Somebody said, "8:30 p.m." I thought, "Well, I have plenty of time, the show does not start until 9:30 p.m.," the show never started early, as a rule, and especially it being on a Saturday night, if anything, it would come on late.

I milled about the back bar for a bit and got a Coke and noticed that it was extremely hot. I said, "Lord, it's hot in here, the air-conditioning must be broken." Somebody said, "Did you ever see anything that worked right in here?"

All of a sudden I heard the comedians come on stage, and I was in a frenzy because I did not have my drinks ready yet. I said, "What are they doing coming on early?" I would estimate by that time it was about 8:45. Well, it took me about 10 or 15 minutes to get the drinks ready to take out to my party. I remember the comedians going into part of their act where they imitated a jet sound in their act. It hit me that after that particular thing they did, usually there was applause—but this time there was silence. But it did not register with me that anything was wrong because I was busy.

Apparently this was when the busboy got up on the stage and notified the patrons that there was a fire because I never heard the busboy say anything at all about a fire. I heard Teter and McDonald, the comedians, tell us that there was a fire. Anyway, I had two full trays of drinks and a busboy following me with another tray. When I came out the door of the bar-service area I had to pause a second

because the hostess was seating a party of eight on the ramp. This was one of the conditions in the room.

Mr. LUKEN. The ramp was an aisleway?

Mrs. JOHNSON. The ramp was an aisleway leading up from the pit area. That was supposed to be an exit for the people who were in the club. But since it was packed with chairs and people sitting there, the people could not go up that way.

Mr. LUKEN. May I suggest, Mr. Chairman, would you like to use the diagram in pointing it out? Take a minute.

Mrs. JOHNSON. Well, let me see here—I drew a diagram myself that would show where the ramp was in the room; if it is all right for me to use that.

Mr. LUKEN. Surely, proceed.

Mrs. JOHNSON. This is the diagram I drew of the Cabaret Room. There is one ramp on each side of the room. This was supposed to be an aisleway for people to be able to come up through the aisleway to go out the door if they ever needed to. And this ramp that night was extremely packed with chairs and people were sitting on the chairs. There were chairs crammed in the aisleway where the steps were, so it was difficult to get down the steps; and the same condition existed on the other side of the room. Also, there were eight people sitting at the tables where normally there are six people sitting at the tables. There were extra tables put in all of the stations, and the banquet tables were put in so they could get more people in. That is why it was such an overcrowded condition and aisleways were almost non-existent because of the overcrowded conditions and the way they set the room up.

The room could be set up many different ways, but whenever you saw the room set up in this manner, you knew it was a full capacity crowd and then some.

Mr. LUKEN. Would you want to point out the exits where the people tried to leave?

Mrs. JOHNSON. In this whole room, I understand the busboy did not tell the people to exit through the front entrance because that was the way the fire was coming from. There was a double door on each side of the room, but you could only get through one-half of this double door because of the way the doors swung. That means that all these people in this room only had two ways to get out of this room. I heard that some people got out a different way, this way, but very few people, in my opinion, could have gotten out that way. They all had to go out through this double door which led into another bar service area. These were not direct exits outside.

Mr. LUKEN. Could you describe that exit?

Mrs. JOHNSON. This exit was a double door. The doors opened opposite one another so that if you were pushing on the left side of the door you could not go through that side. All these people actually had to single-exit to get out into the bar service area.

Mr. LUKEN. Where was the bar service area?

Mrs. JOHNSON. That was back here where we picked up all of our drinks. Our bartender was there, the cashier; the waitresses and all that was back there.

Mr. LUKEN. Was there a direct exit to the outside?

Mrs. JOHNSON. Well, in that room there was a direct exit to the outside, but there was nothing in that service area to indicate, to tell

people where to go. The only way that the people knew the way to get out of the room was because the comedians told them to go to the right and go to the left. Also, there was an exit sign above those double doors, a green-and-white exit sign.

You would assume, if that was my first time at the Beverly, I would have assumed that would have led me directly outside, but it did not. I think that is what helped me to get out of that fire because I knew my way through there, and I knew which way to go.

Mr. LUKEN. Through where?

Mrs. JOHNSON. Through the bar service area because on this side you could see, once you got through that double door, you could see which way to go, and you could see those doors. On this side these doors led directly outside, and you could see them. But on this side of the room, once you got past this double door, you could not see the single exit door at all from here. There was nothing directing you which way to go. In fact, there is a little closet here shaped like a pie, and there was a red-and-white exit sign painted over this door. I understand some people were found dead in there.

That is in my opinion why they were found dead because they did have an exit sign over that door, and that was only a closet that led nowhere. It was just a closet; you could not get out.

I think another reason, first of all, there was not enough warning in time for people to react to prevailing circumstances around them.

Mr. LUKEN. How was this?

Mrs. JOHNSON. I was just going to say, on this side of the room there were more people because of this fourth level over here. I think that is one reason why most of the people died on this side of the room because there were more people on this side of the room, even though there was a double door exit in the bar service area over here, and only the single exit out. Those were the only two ways out of that room.

Mr. ECKHARDT. Was this diagram in the Courier-Journal, the Louisville Courier-Journal, in connection with the story, essentially correct?

Mrs. JOHNSON. It is correct. The only difference on this drawing in comparison with this drawing is that these chairs have been moved back by the artists, and they should not have been because there were people seated in front of these steps. In fact, I have letters from people verifying the fact that they were seated here in this aisleway to the steps.

Mr. ECKHARDT. You are pointing to the area in the lower right-hand portion of the chart.

Mrs. JOHNSON. Yes.

Mr. ECKHARDT. There were a number of chairs indicated, blocking the area that says on this diagram, "steps up."

Mrs. JOHNSON. That is correct.

Mr. ECKHARDT. Without objection, we will hold the record open at this point, and at the previous point where a discussion was made of the first-floor plan of the Beverly Hills Supper Club, for the insertion of illustrative documents into the record.

[The information requested was not available to the subcommittee at the time of printing.]

Mr. ECKHARDT. Would you proceed?

Mrs. JOHNSON. After I paused after coming out of the bar service area with my drinks letting the hostess seat eight people on the

rampway, I could see that it was impossible for me to go through the aisle on the second level. The people were just packed in there like sardines.

Mr. LUKEN. You were now trying to get out.

Mrs. JOHNSON. I was trying to get out of the bar service area to get back to my station to deliver these drinks.

Mr. LUKEN. This was before you were aware of the fire.

Mrs. JOHNSON. Well, what I feel that I did was, I was in the back getting my drinks ready while the busboy was telling the people there was a fire. After he got through telling the people there was a fire, there was some hesitation; and then here I came out with my drinks because, as soon as I got through the third level and came down the steps to the second level, came down the steps to the first level, that was when it registered with me that Teter and McDonald were saying, "Ladies and gentlemen, there is a fire. Please, do not panic, we want to get you out." They said to exit to the right and exit to the left.

So, apparently, what I had done was walked into a room full of people that had just been notified that there was a fire.

As I was coming through that first level, though, I had to climb over people that were seated on the top of the stepway. I saw some people go up on the stage that were trying to get out. I guess they thought that there would be a way for them to get out on the stage, but the comedians told them, "Do not come up on the stage as there is no way out from up here."

I set my trays down on table and immediately felt a great sense of danger. People were very orderly. They were talking and moving as quickly as they could. Their speed in evacuating the room was hindered by chairs on the ramp, by chairs in the aisles where people had been sitting on them. They just had to keep pushing and shoving all those chairs out of the way, and it did slow them up quite a bit.

I walked over to the stepway coming out of the pit area, and I stopped for a couple of seconds.

Mr. LUKEN. The pit area in front of the stage?

Mrs. JOHNSON. Yes. That was the first level. All of a sudden I heard a big swoosh, like a pressure-release type of thing, and I looked over my left shoulder. I saw the smoke and fire come into the room. The smoke was so black, it looked like crude oil in midair, just rolling. People began to scream and shout, and push. But they did not begin to scream and shout, and push, until they saw the smoke and the fire; up until that point they were very orderly, they were doing exactly as they were told. Then, after that happened, I screamed at Terry, "My God, there really is a fire."

And in an instant I had to figure out how I could get from where I was at the steps to the double door exit. I just knew that the smoke was going to kill me, and the only way I could see to get to that double door was over the tops of the tables. I jumped up on a chair, and I jumped on a table, and I screamed at Terry to come on with me.

The smoke was right on us, and just as I jumped down into the crowd I grabbed a hold of some man's collar, and he pulled me through the door into the bar service area. Just as he did that, the smoke came out at the back of my head. My blouse was burned, and my hair was singed. But it was just like a blast of smoke that came out back of me.

People were screaming, and they were pushing, and they were shoving, and they were trying to get through this single exit door. It was like trying to get an egg in a Coke bottle—you just could not do it.

There just was not enough time in order to react to what happened so quickly. Anyway, after I got through that door I did not hear the people scream any more. On my way out I was trying to warn the employees that there really was a fire. I saw Steve, our bartender smiling; and I passed on I saw Margo and Mindy, and I screamed at them, "Get out, get out, there is a fire," and nobody seemed to hear me.

Once I got out the door I was trying to figure out what I should do, I still felt like I was in great danger. The smoke by that time was just pouring out the door. I could not go to my left because the people were jammed so badly that I could not get through there, and I was afraid I was going to be burned to death. So, I jumped over the cliff, and then I caught myself and I came back up the cliff, back around the chapel area. Then I walked over by the Garden Room—well, before I jumped off that cliff I looked to the right, and I saw all the ambulances and fire trucks on that hill. They were already there when I got out, and I had very mixed emotions about them being there.

It dawned on me in a split second that they knew about the fire before we did, and before anybody else told us there was a fire.

Then, as I came back up the other side of the chapel, I walked over where the Garden Rooms were, I could see the firemen at the front of the building, up on big ladders, and they were pouring water on the front of the building. And there wasn't anybody back there helping us at all—nobody. I could tell—in fact, I was trying to figure out how they were going to get back there to us because on one side there was a cliff, and on the other side it was like overgrowth, you know, bushes and trees, and there was no real access to us back there. I could not figure out how they were going to help us.

Then, after I saw the firemen up there pouring water on the front of the building a great big something exploded, and a great, big, huge ball of fire came rolling over the top of the building. It came over and just engulfed the Garden Rooms. It engulfed the Cabaret Room and just completely took over the whole building, and the whole building went up. I knew then that the people were being burned to death. That is when I got scared because I knew there were people that were dead, I heard a woman scream that, "My God, he's dead." That is when I got really terrified and ran to the back of the lot. I ran into a man named Ed Gurner who was our checker, he checked our checks.

I said, "How long have you been out here, Ed?" And he said, "I have been out here a few minutes." And he told me that he had seen Charlie Coslin unlock the back fire doors, that they had been locked, and that Charlie did unlock these doors. When he saw Charlie unlock the doors he knew that it was a serious fire, or that something serious was going on. That is when he said he got out right away.

Both of these doors on both sides of the room were locked until just moments before the people got out because a girl, Dove Craig, saw Pauline Smith unlock the fire door on the other side, they had been locked prior to this.

That is about all I can tell you as to what happened to me during the fire.

Mayor Ken Paul made a statement right at the beginning of all of this, and he said that we had had a fire drill about a week before this fire had happened. That was totally untrue. We never, at any time in my 2 years of employment at the Beverly Hills had any kind of instruction on what to do in case of fire. We were never informed in any way, shape, or form what to do in case of fire.

Mr. ECKHARDT. What you refer to is the fire doors, those that go outside from the bar, and those that go outside from the other side of the room?

Mrs. JOHNSON. Correct.

Mr. ECKHARDT. At the dressing room.

Mrs. JOHNSON. The dressing room door, that is correct.

Mr. ECKHARDT. And you understood they had been locked until shortly before the persons began to exit through them?

Mrs. JOHNSON. Yes, sir.

Mr. ECKHARDT. But they had been opened by the time the persons came to the doors.

Mrs. JOHNSON. Yes, sir, that is correct. In the 2 years that I worked there these doors—I worked on the left side of the room where the chapel was most of the time, and these doors were only opened about eight times during the 2-year period.

Mr. ECKHARDT. Now, those are the exterior doors?

Mrs. JOHNSON. Yes, sir.

Mr. ECKHARDT. Thank you. Mr. Luken?

Mr. LUKE. Well, could that have been the reason for the delay in notifying the people in the Cabaret Room, that they had to get the doors unlocked before they could notify them of the fire?

Mrs. JOHNSON. It could have been, but I feel in my own heart, I feel that the reason why—well, I have another newspaper article about a waitress that worked in the front dining-room, and she pinpoints Margie Schilling—Rich Schilling's wife—as knowing that there was a fire as of 8:30. She said that she had checked the time of her watch, and that Margie Schilling had told her to get her station ready because she was going to be very busy in just a little bit.

She said, "I walked to the front bar, I looked at my watch, lit a cigarette. I looked up at the ceiling, and the smoke was coming in from the ceiling."

And a couple of seconds later Margie Schilling came running through, screaming, "Get these people out of here, there is a fire."

So, I believe this girl. I believe they knew about this fire as of 8:30. I think that they tried to fight this fire because there was evidence that there were spent fire extinguishers found in the Zebra Room, and I think they just tried to fight it and realized that it was something out of their control. It was lack of communication that they did not tell us there was a fire.

But I believe that about half an hour elapsed before we ever found out that there was a fire.

Mr. LUKE. You did not see the doors unlocked?

Mrs. JOHNSON. No; I did not see the doors unlocked.

Mr. LUKE. But you have seen them previously when they were locked?

Mrs. JOHNSON. Oh, yes, they were kept locked most of the time.

Mr. LUKE. Are you talking about this door? [Indicating.]

Mrs. JOHNSON. Yes, sir.

Mr. LUKEN. And this door? [Indicating.]

Mrs. JOHNSON. Yes, sir, they were kept locked.

Mr. LUKEN. This is where most of the 1,300 people went through?

Mrs. JOHNSON. Yes, sir.

Mr. LUKEN. And you are saying that both of those doors were normally locked; even when there were crowds in there?

Mrs. JOHNSON. Yes, sir, they certainly were. They were afraid someone might come back there and hold them up because there were thousands of dollars at the cashier.

Mr. LUKEN. What kinds of locks?

Mrs. JOHNSON. They were locked with a key.

Mr. LUKEN. Was there a panic bar?

Mrs. JOHNSON. There was a panic bar, but that didn't work.

Mr. LUKEN. The panic bar did not work?

Mrs. JOHNSON. There was a long bar across each door, but if you tried to push on that door it would not open. The only way you could get that door open was with a key, because I saw Margo open it with a key, and I have seen Pauline Smith open it with a key.

Mr. LUKEN. From the inside?

Mrs. JOHNSON. From the inside.

Mr. LUKEN. But you only have someone else's word about it being unlocked shortly before.

Mrs. JOHNSON. Yes, sir, I do. But these are very substantial people.

Mr. LUKEN. Somebody had to go and unlock both of those doors after getting knowledge of the fire, before notice was given to the people in the Cabaret Room?

Mrs. JOHNSON. Yes, sir. I was told this by very substantial people. I believe these people.

Mr. LUKEN. Well, of course the Governor is a very substantial person, and he just said it was 20 minutes from their investigation. So, your report of half an hour would not be far off of the mark of the estimate. But I think this is the first that we have heard that the door was locked.

Mrs. JOHNSON. Oh, yes, definitely.

Mr. LUKEN. And it was unlocked that night.

Mrs. JOHNSON. It was. This was a statement made to me by both parties. Ed Gurner did tell me that he saw Charlie Coslin unlock that door just moments before. And Dove Craig told me that she saw Pauline Smith open the door and say, "Well, we will take them out this way." These people would not lie, they would have no reason to lie. I knew it was the truth because of the fact that it was normally kept locked all the time. Those doors were never opened, as a rule.

Mr. LUKEN. You were working at the service bar area, on top of the diagram, right?

Mrs. JOHNSON. Yes, sir.

Mr. LUKEN. When you got to the interior door, the swinging door, was there a jam up there?

Mrs. JOHNSON. Yes, sir, there was. Like I described it, it was like trying to get an egg in a Coke bottle. You just could not get that many people through there. There would be three people jammed in a doorway, and they were pulling and clawing at one another.

Mr. LUKEN. Did you see anybody on the floor?

Mrs. JOHNSON. No; I did not see anybody on the floor at that point.

Mr. LUKEN. They were moving in some panic, but they were all still moving.

Mrs. JOHNSON. Right. In the beginning they were moving just fine, people were just going through. But then, when the smoke and fire came into the room, where I was at the back, that's who started screaming. That is when I knew that I had to get to the front in order to get to those doors because, if I did not, I would be dead.

Mr. LUKEN. How many people from the cabaret room were out by the time you got out, can you estimate that?

Mrs. JOHNSON. I don't know how many people from the cabaret room.

Mr. LUKEN. Do you know how many people were still left in there?

Mrs. JOHNSON. No. I estimated it at 300 to 400.

Mr. LUKEN. Who were still in there?

Mrs. JOHNSON. Yes. I had a hard time trying to estimate because they were all standing up.

Mr. LUKEN. What is your estimate of how many were in there before the fire notice came? In other words, how many were in there before the trouble started?

Mrs. JOHNSON. Oh, I would say 1,200 to 1,300 people very definitely.

Mr. LUKEN. Have you seen crowds like that in there very often before?

Mrs. JOHNSON. Whenever we had main headliner attractions we would have those kinds of conditions, Racquel Welch, David Brenner—any time we had a big-name headliner you could rest well assured that those would be the conditions.

Last year, when Myron and the Vandelles were performing in the cabaret room, around Christmas, we had 1,500 people in that room because my boss, Pauline Smith, told me that there were 1,500 people in the room. There was standing room only that time.

Mr. LUKEN. You said there was no training whatsoever of the employees as to what would be done in case of a fire.

Mrs. JOHNSON. That is true, never at any time. The only time fire was ever mentioned was when a customer would ask us, "What in the world would you do in case of a fire?"

Mr. LUKEN. Who was your immediate superior?

Mrs. JOHNSON. Pauline Smith was my immediate superior, but Ronnie Schilling was in charge of our room.

Mr. LUKEN. What was Pauline Smith's job?

Mrs. JOHNSON. She was in charge of all the girls, scheduling the girls to work, getting their stations straightened out. She was in charge of the room in general. She made sure that certain people who were supposed to sit in certain places got there; just a general hostess to all the people. She was to oversee the room. Anything that went wrong in the room, she was to make sure that it was supposed to go right. She was in charge of just about everybody in the room.

Mr. LUKEN. Did you know the State fire marshal, Mr. Southworth?

Mrs. JOHNSON. No, I did not know him. I probably had seen him and did not know who he was.

Mr. LUKEN. Do you know anything about inspections of conditions as to fire safety in Beverly Hills?

Mrs. JOHNSON. No, sir, I do not.

Mr. LUKEN. Have you ever been in the basement?

Mrs. JOHNSON. A couple of times.

Mr. LUKEN. Are you knowledgeable enough to notice the electrical work in the basement?

Mrs. JOHNSON. No, sir.

Mr. LUKEN. Neither would I.

Thank you, Mr. Chairman, that is all I have.

Mr. ECKHARDT. Thank you, Mrs. Johnson, we appreciate your coming here to this hearing. Your testimony has been most helpful.

Mr. LUKEN. Thank you, Mrs. Johnson.

Mrs. JOHNSON. Thank you.

Mr. ECKHARDT. The subcommittee will stand in recess until 1:30.

[Whereupon, at 12:30 p.m. the subcommittee recessed, to reconvene at 1:30 p.m. on the same day.]

AFTER RECESS

[The subcommittee reconvened at 1:30 p.m., Hon. Bob Eckhardt, presiding.]

Mr. ECKHARDT. The subcommittee will resume its hearings. The next witness is Mrs. Zorick.

Mrs. Zorick, will you identify yourself for the record and then proceed in your own manner.

STATEMENT OF JANET ZORICK, CINCINNATI, OHIO

Mrs. ZORICK. I am Janet Zorick from Cincinnati.

My husband, his father, his aunt, and I arrived at the Cabaret Room just a few minutes before Teter and McDonald came on stage. We were seated in the middle of the room on one of the upper levels behind the man who had the controls for the stage. It was so crowded, and more people were coming in, that my husband joked about them having to put the people on the walls.

We became quite warm, so my husband and I removed our jackets. At that time we thought it was from all the people. Part way through Teter and McDonald's act a busboy jumped on the stage and said there was a fire in the building, that the people on his right should exit out left, and people on his left to the other exit. I thought he was joking, but you could see that he was crying. Right away my husband got up, and I also did. He was a captain of the Mack Fire Department. So, he looked around and he said, "My God, the smoke is rolling, it is a working fire." That is when I noticed smoke the color of cigarette smoke rolling at the top. I still could not believe this was really happening when my husband said, "We have just a few minutes to get out, and this damned place has no sprinklers."

His father told us to go ahead, he would follow with the aunt. My husband kept degrading himself for not noticing that there were no sprinklers and not enough exits. People got up right away and proceeded to leave. The people who were at the front of the line—we were at the rear because we were in the middle of the room—were moving very orderly and there was no panic. It was difficult to walk because there were too many chairs and tables, and no clear routes to take. My husband spoke very loudly and asked if the people in front would move a little faster.

At this time there was a swooshing sound, similar to a small explosion and it became very hot, and there was a yellow glow. A woman

screamed, and that is when panic set in. The people did not panic until there was a reason to. I was knocked down several times and walked on. My husband drug me up and threw tables out of our way. He told me not to look behind me, and he picked me up and carried me down a couple of levels, jumping tables to bring me back up to the exit.

At this point we could not go any further, and he threw me out the exit. This exited into a room or hall. I could not find a way out, neither could the other people because there were no exit signs. There were people on the floor already. When I turned to my left, I was hit by flames. Some man told me to grab his belt and he would find a way out. The smoke and flames were so intense that I tried to cover my face with my dress to breathe, and all my jewelry started to melt on me. I must have become unconscious because the next thing I remember was my husband pulling me up by the armpits saying, "I've got you, honey, you are going to be OK."

He went back in for his dad and aunt, and I never saw any of them again.

Mr. ECKHARDT. Mr. Luken?

Mr. LUKEN. Mrs. Zorick, maybe we could go into a little more detail about some of the things that you talked about because it might be helpful to our investigation and the things we might do about this.

Your husband was a fireman, is that right?

Mrs. ZORICK. He was a captain at Mack.

Mr. LUKEN. Mack is in Greene Township here in Hamilton County, in Cincinnati, Ohio.

Mrs. ZORICK. Yes.

Mr. LUKEN. How long was he a fireman?

Mrs. ZORICK. Nine years.

Mr. LUKEN. So that when this happened, he started to tell you right away what was happening; right?

Mrs. ZORICK. He knew right away that there was danger because he stood right up and he said, "The smoke is rolling, it is a working fire." Being his wife I knew that meant trouble. That was when I noticed there was smoke rolling up at the roof, but it was gray smoke at that time.

Mr. LUKEN. Do you know what time that was, time of the evening?

Mrs. ZORICK. I told my family when I was at St. Luke's that it was 9:22. I looked at a watch or a clock, but I could not tell you if it was my watch, my husband's watch, or what. But I told the whole family 9:22 when they asked me when we were told there was a fire.

Mr. LUKEN. It was that late?

Mrs. ZORICK. Yes; 9:22. I do not know where I got that. The only thing I remember is looking at a clock. I do not know if there was a clock in the Cabaret Room, or not.

Mr. LUKEN. When Teter and McDonald told you there was a fire, you heard them when they first announced it?

Mrs. ZORICK. Right.

Mr. LUKEN. Did you hear the busboy?

Mrs. ZORICK. Yes. He was the one that told us. He got up on the stage, and he said there was a fire in the building and that everybody should exit this way and that way.

Mr. LUKEN. What did Teter and McDonald do then?

Mrs. ZORICK. They stayed on the stage and they asked everyone to please leave calmly, and that we would probably be back in a few minutes.

Mr. LUKEN. Did they show where to go?

Mrs. ZORICK. I cannot remember if they did, or not. The busboy did, and I was following my husband's instructions at that point.

Mr. LUKEN. Have you seen a diagram of the Cabaret Room?

Mrs. ZORICK. Yes.

Mr. LUKEN. Do you see the one up here?

Mrs. ZORICK. Yes.

Mr. LUKEN. Which side of the room were you in, this side here?

Mrs. ZORICK. The stage is here——

Mr. LUKEN. Here is the stage, and you come in here.

Mrs. ZORICK. We were there, where you showed me; yes.

Mr. LUKEN. So, this is the exit you went through.

Mrs. ZORICK. Yes.

Mr. LUKEN. As soon as you heard the announcement you started moving toward this exit.

Mrs. ZORICK. As fast as we could, yes.

Mr. LUKEN. And there were people blocking you, is that what held you up?

Mrs. ZORICK. We were at the end of the line because we were in the middle of the room. We were the last ones to go. They were moving very slowly because I do not think the people realized the urgency at the time. But they were moving orderly.

Mr. LUKEN. Did you give any thought to going out here? [Indicating on diagram.]

Mrs. ZORICK. No, because they told us to go out the other direction, and the smoke was coming from behind, that way.

Mr. LUKEN. Was the smoke coming as soon as you were told about the fire?

Mrs. ZORICK. My husband saw it at the top. It was the gray smoke, not the black.

Mr. LUKEN. It was gray smoke.

Mrs. ZORICK. Not the black at that time.

Mr. LUKEN. And that came when the swoosh occurred.

Mrs. ZORICK. Yes.

Mr. LUKEN. And your husband kept talking to you about it as you were leaving.

Mrs. ZORICK. Yes.

Mr. LUKEN. As you were in this line, trying to get out.

Mrs. ZORICK. Right. There was some lady next to me crying, and I remember telling her not to worry, we would all get out. I really thought that everybody would get out because I did not realize how serious it was. But he said to me, "We only have a few minutes," to get out.

Mr. LUKEN. And at that point he mentioned that there were no sprinklers.

Mrs. ZORICK. Yes; and he could not believe that he was so lax that he did not notice that there were not more exits.

Mr. LUKEN. It was even at sat time that he told you if he noticed it, he would not go into a place like that.

Mrs. ZORICK. No. We have smoke detectors in our home. We have fire drills for our children. He was usually very fire-conscious. But we

just went out to have a good time, and he just never paid any attention.

Mr. LUKEN. Did you notice what any of the other employees did?

Mrs. ZORICK. There was one waitress that sat on a table and asked everyone to please not panic, take their time, we would all get out. These were the ones in the Cabaret Room, I remember seeing her, and she was trying to keep everyone calm. They were calm until the explosion, and then, naturally, people panicked; but not until then.

Mr. LUKEN. So, when you got to the door into the bar—that is a service bar in there, is it not?

Mrs. ZORICK. I could not tell what it was, a hall, or something.

Mr. LUKEN. Did you notice, were these swinging doors?

Mrs. ZORICK. I never noticed—I just never noticed.

Mr. LUKEN. But there was a bottleneck there.

Mrs. ZORICK. Right. That was on fire, there were flames in there.

Mr. LUKEN. Inside there?

Mrs. ZORICK. Yes. Like there was an air duct, or something, and they kept coming through but would not be there all the time. He threw me over the people that had stopped.

Mr. LUKEN. Right here? [Indicating.]

Mrs. ZORICK. Right. Right at the exit at the door.

Mr. LUKEN. And then you got into another jam in here? [Indicating.]

Mrs. ZORICK. Right, and you could not find your way out. He must have gotten through and gotten me out—I do not know how he did it.

Mr. LUKEN. But he pulled you out of here.

Mrs. ZORICK. He pulled me out to the outside.

Mr. LUKEN. And then he went back.

Mrs. ZORICK. For his dad and his aunt.

Mr. LUKEN. Well, as we have been discussing it, is there anything in particular that you think would be helpful to us, as far as what happened, and what the causes were, what the people were doing?

Mrs. ZORICK. No; nothing else.

Mr. LUKEN. You did not notice whether those doors swung inside, or out.

Mrs. ZORICK. No; I did not.

Mr. LUKEN. And you were unconscious when——

Mrs. ZORICK. I was in the exit room, the hallway, whatever it was. There were people on the ground already, on the floor, and we tried to find our way out. Some man said, "Grab ahold of my belt, Honey; I will get you out." We could not find our way out of that exit at all. And when I turned to my left was when the flames hit me. I knew to keep your face covered, and all that, but it did not help, I became unconscious.

Mr. LUKEN. Were there a lot of people around you at that time?

Mrs. ZORICK. In that exit?

Mr. LUKEN. Yes.

Mrs. ZORICK. Yes.

Mr. LUKEN. It was jammed with people.

Mrs. ZORICK. Right, and there were an awful lot of people on the floor.

Mr. LUKEN. And they did not know where to go.

Mrs. ZORICK. No; I think they became unconscious. One woman was screaming, and I tried to help pull her out. She was too badly burned to get up.

Mr. LUKEN. Thank you, Mrs. Zorick. I have no further questions.
 Mr. ECKHARDT. Thank you very much for your testimony; it was useful to the committee and tells the story of a very brave and very competent man. Thank you.

Mrs. ZORICK. Thank you.

Mr. ECKHARDT. Captain Sabino?

Will you please identify yourself for the record, Captain, and proceed in your own manner.

STATEMENT OF PETER SABINO, CAPTAIN, CINCINNATI FIRE DEPARTMENT

Captain SABINO. Capt. Peter Sabino, Cincinnati Fire Department. You want me to proceed?

Mr. ECKHARDT. Please.

Captain SABINO. I arrived at the Beverly Hills at approximately 8:45 on the night, with my family. We entered the foyer. I went up to the hostess and she took acknowledgement that I was there. She told me to sit down for a while, and we would be called.

So, I went to the bar, got a drink for the four of us, and we were seated right next to the Zebra Room for 3 to 5 minutes. The hostess called my name along with about 18 to 20 other people. She gave me a slip with GR-7 on it, and told me to proceed through the hallway.

Mr. LUKEN. Would you stand up and point out? Take your time.

Captain SABINO. Yes, sir. It was through the hallway right here, and then we turned left and went all the way to the end. She said a hostess would seat us for dinner. We were too late for the 9:30 show. We would eat and see the 11:30 show.

We were standing in the hallway, approximately at this point here by this big wall, and we heard some loud talking coming from over in this area. A couple of waitresses ran past us this way, kind of frantic looking; and our hostess started moving our line—it was about 18 to 20 people—moved us out right there and right out to the Garden Room.

Mr. LUKEN. Did she say anything?

Captain SABINO. She said, "We have a problem, everyone will have to get out."

Mr. ECKHARDT. What time was that?

Captain SABINO. It was about 10 to 9, 9 o'clock; I really do not know exactly. There were two or three glass doors here, and there were a lot of people flowing from this direction out these doors. We got outside and got back, I would say, about 100 feet. I told my family to wait and I would go up and find out what was wrong.

There were a couple waitresses standing in this area, and I asked them what was wrong and they said, "There is a fire in one of the party rooms."

Being a fireman, I thought possibly if I pulled some drapes down and some tablecloths, I could hold it until the fire department arrived. So, I found a waiter close by these waitresses. I identified myself to him as a fireman, and I said that maybe we could get it. So, he brought me back in the same way. We were proceeding down this hallway—I know it was beyond the point where we were standing when we were told to move out, and I felt heat on my face.

So, I looked down this way, which I would say was a good 80 feet and I could see flame in the ceiling area down here. Between the time I felt the heat on my face and was on the floor, crawling out with the waiter, it was about 15 to 20 seconds. This heat came out—it was a tremendous amount of heat. So, we went back this way, and there were about 18 to 20 inches of fresh air on the floor in this area here. I could see the glass doors, and we just headed for the doors.

Mr. ECKHARDT. Crawling?

Mr. LUKEN. You were crawling?

Captain SABINO. Yes. We could not stand; the heat and smoke were just too much.

I heard a lot of screaming coming from what I know now was the Cabaret Room. We did get back out. I believe I went back and told my family it was a bad one. I looked over to the right, and I saw a lot of people back in this area, some crawling, coughing, laying on the ground.

I went over, and there was a set of double doors right here, and there was some kitchen personnel, or some people in white pants and shirts, and they kept pointing in there, and I figured that these people that were laying around did come out of there. The smoke was pouring out of these two doors at approximately this level [indicating], 3 foot. So, I crawled in this area right here where people were piled up at least this high, just laying on top of each other—all you could see was a pile of arms and faces, and they were screaming and reaching.

So I started pulling people off the pile. Apparently two of the men that were employed crawled in behind me and they must have passed the people back outside.

I took as much as I could. I went back outside—and like I said, time, I do not know what I did next—but I did make my way around the building and there were two pumpers parked here. I told the chief, I identified myself as a Cincinnati fire captain, and I said, “There are a lot of people trapped in the back.”

He immediately told me to get on this pumper, take this pumper—I do not know his wording. They had four or five men on it, and we went around this side here. There was a hydrant in this area—I do not know exactly—just about here. We laid a hose to it, took the pumper back to this area. Our objective at this time was to get a line across here to cover the people in this area. We did not ever quite get this line back here, I really do not know the reason.

I ran back over to this area and there were firemen here at this time. I told the chief that there were a lot of people trapped in there—one of the chiefs. His men got in there, and they started bringing more people out. This whole area back here was just lined, later on, with dead and injured people, unconscious.

I assisted that night in various other things, showing people how to give mouth-to-mouth resuscitation; I just worked with the firemen the rest of the evening until the morning. That is it.

Mr. ECKHARDT. Mr. Luken?

Mr. LUKEN. Captain Sabino, you started out talking about the time.

Captain SABINO. Yes, sir.

Mr. LUKEN. Could we go over that again and pick it up? What were the times, as best you can tell?

Captain SABINO. I guess I arrived at 8:45. I went to the hostess. We were seated. I would say within 5, 6 minutes we were in the hallway. We were in the hallway 3 to 5 minutes when we were told to move out.

Mr. LUKEN. At this point the waitress said, "We have a problem, you have to get out"?

Captain SABINO. "We have a problem, we have to get out."

Mr. LUKEN. You did not ask her what it was.

Captain SABINO. No.

Mr. LUKEN. You had no idea what she was talking about.

Captain SABINO. The door was open to the Cabaret room and I did see the comedians performing at that time.

Mr. LUKEN. You could see the stage, and you could see some of the activity in that room.

Captain SABINO. Yes, sir.

Mr. LUKEN. And everything appeared normal?

Captain SABINO. Yes, sir, just the way I see these people.

Mr. LUKEN. You had been in that room before?

Captain SABINO. No, sir.

Mr. LUKEN. You do not go to nightclubs every night?

Captain SABINO. I had never been in that one.

Mr. LUKEN. But you have an idea of such rooms, and you did not see anything out of place.

Captain SABINO. No, sir.

Mr. LUKEN. And the comedians were performing on the stage. There were not any people leaving, there were not any unusual number of people walking out that door?

Captain SABINO. No.

Mr. LUKEN. Was there any unusual activity around that door?

Captain SABINO. No, sir.

Mr. LUKEN. Now, were you waiting to go to that room, the cabaret room?

Captain SABINO. No, we were waiting to be seated in one of the garden rooms for dinner.

Mr. LUKEN. You were not going to the cabaret room at all.

Captain SABINO. For the 11:30 show, yes, sir.

Mr. LUKEN. So, you were going to do it by stages, you were going to the garden room, and then the cabaret room.

Captain SABINO. Yes, sir.

Mr. LUKEN. I assume they do not have dinner in the cabaret room, as far as you know.

Captain SABINO. I do not know.

Mr. LUKEN. So, you were going to have dinner in another room, and then to the cabaret room to see the show.

Captain SABINO. Yes, sir.

Mr. LUKEN. So then, as to time, about how long did it take you to get outside? At this time you were still pretty much aware of time.

Captain SABINO. Yes, sir.

Mr. LUKEN. From the time the waitress told you there was a problem until you started to come back in, how much time elapsed?

Captain SABINO. When we were moving out is when she told everyone in that line there was a problem. Apparently someone ahead of me asked her what was wrong, and that is when I heard her make the

statement. We went outside. It is hard to really estimate time. I would say possibly a minute and a half, 2 minutes.

Mr. LUKEN. When you went outside, could you see this exit up here, when you went out the first time?

Captain SABINO. No, sir.

Mr. LUKEN. You do not know whether they were streaming out there, or not.

Captain SABINO. The only other people going in the same direction were from the garden dining room.

Mr. LUKEN. And then you came back in.

Captain SABINO. Yes, sir.

Mr. LUKEN. And about what time do you suppose that was, when you got back to this area?

Captain SABINO. From the time we moved out—I would say approximately 2, or 2½ minutes.

Mr. LUKEN. That is all there was. So, it was about what time, then?

Captain SABINO. It was after 9, it had to be after 9.

Mr. LUKEN. And you came past the cabaret room again.

Captain SABINO. With the waiter, and on our way in it was as clear as this room.

Mr. LUKEN. When you went past the second time.

Captain SABINO. No, I did not notice. I was only following the waiter to the party room that had the fire.

Mr. LUKEN. And there was nobody in the corridor, then.

Captain SABINO. I do not recall. There could have possibly been people filing out. You see, there is another hallway there that led out. If that would have been the case, possibly they could have.

Mr. LUKEN. Another hallway, would you point that out?

Captain SABINO. It looks like this is a partition. It looks like this is a way out.

Mr. LUKEN. Is that not the way you went?

Captain SABINO. No, we went out this way. If I had gone this way, I would have seen all these people going out. We apparently came this way.

Mr. LUKEN. I see. Then you said something to the effect that, as you came back in and looked down the corridor, you saw smoke on the ceiling.

Captain SABINO. Yes, sir, I saw flame.

Mr. LUKEN. And you felt heat.

Captain SABINO. I looked up and it started to get dark. I could see that we had smoke and flame, and I felt heat. And from that instance on everything started happening fast. It got real hot immediately and smoke came down on us, and we had to go to the floor.

Mr. LUKEN. So, when you came in the corridor and looked at the smoke it was way down the corridor at that point.

Captain SABINO. Yes; it was in the ceiling area.

Mr. LUKEN. It was not concealed.

Captain SABINO. No, sir. My own opinion on it is that it broke loose at that time because we certainly would have smelled smoke if it was in that area.

Mr. LUKEN. In other words, the whole corridor went up at one time.

Captain SABINO. Almost immediately, yes, sir.

Mr. LUKEN. There has been some description that it took less than 4 or 5 minutes to go down that corridor. What you are saying is that it was instantaneous.

Captain SABINO. Yes, sir, I would say within 15 or 20 seconds.

Mr. LUKEN. And just in that space of time you had to hit the deck, and you only had a few inches of breathing space?

Captain SABINO. Eighteen to twenty-four inches of floor area, enough to crawl.

Mr. LUKEN. Were there others around at that time?

Captain SABINO. No, sir. When we got into the Garden Room, where it says Garden Room area, I did hear people screaming at that time, not before that. I felt for the waiter and got out those doors. It was still light outside.

Mr. LUKEN. And at that point there were no firemen, none of the Southgate firemen, or anybody else was in the back.

Captain SABINO. No, sir.

Mr. LUKEN. But you saw quite a few people over in the area, near the service area.

Captain SABINO. Yes, sir. My main concern was to go back and tell my family that it was a bad fire and they would have to get away. I did look over, and that is when I saw people coughing and choking on the ground.

Mr. LUKEN. Some of them getting away, and others unable to get away.

Captain SABINO. There were a lot of people standing around just lots of people.

Mr. LUKEN. But no firemen back there.

Captain SABINO. No, sir, not at that time.

Mr. LUKEN. You went all the way around the building before you came across any firemen.

Captain SABINO. Yes, sir.

Mr. LUKEN. And there were two pumpers there.

Captain SABINO. Two pumpers, yes, sir, under the canopy.

Mr. LUKEN. You do not have a good fix on what time that was.

Captain SABINO. No, sir, I do not.

Mr. LUKEN. Did the chief say anything about what he was doing; did he say anything at all?

Captain SABINO. I remember seeing him up on the platform, the officers' side of the pumper. Possibly he was radioing in for help. I do not know what he was doing. That was when I went up and identified myself to him, and told him that we had a serious problem in the rear with people trapped. I believe at that time he ceased the firefighting operation.

Mr. LUKEN. Did that hydrant ever become operational?

Captain SABINO. Yes, sir.

Mr. LUKEN. You do not know whether it ever reached the problem area.

Captain SABINO. No, sir.

Mr. LUKEN. It did not appear to be long enough.

Captain SABINO. It did, later in the evening, it was over there.

Mr. LUKEN. How far away was that water from the entrance?

Captain SABINO. The pumper, or the water?

Mr. LUKEN. The water.

Captain SABINO. The hydrant?

Mr. LUKEN. Well, let us start with both.

Captain SABINO. The pumper was back here, there was a redwood fence dividing the driveway from the garden. We had knocked the fence down and started to lay the line across. I just ran out of man-

power while we were trying to lay this line; that is the reason I could not get it over there.

Mr. LUKEN. How many Southgate firemen were on the pumper?

Captain SABINO. The driver and three on the rear when we stopped to lay off. They were not familiar with my fire terminology when I told them to "lay off". Two of them jumped off to hook the hose to the hydrant. I was excited, and I did not have time to explain, so we proceeded up the driveway with a man on the back, and the driver. I hollered for masks, and the man on the back did put a mask on. I started dragging the hose off the back and the driver, the engineer, helped me with the hose. We had quite a few turns, and if you are familiar with pulling hose off the back of a pumper and trying to take it around three or four turns, it is a job. Fatigue was setting in real fast and we just could not get it over there.

So, like I said, I ran back over, and there were firemen there at that time.

Mr. LUKEN. With equipment?

Captain SABINO. Fire equipment?

Mr. LUKEN. Yes.

Captain SABINO. No, sir. They were getting back there getting ready to enter the cabaret room.

Mr. LUKEN. There was no water.

Captain SABINO. No, sir, no water. There was no fire showing in the area, other than heavy smoke.

Mr. LUKEN. So, water would not have done any good.

Captain SABINO. Well, the idea was to cover the people going in for the rescue, and the people trapped on the floor in there.

Mr. LUKEN. You say there were masks, though.

Captain SABINO. Yes, sir.

Mr. LUKEN. And you did eventually, then, have masks to provide for those who were working at the exit.

Captain SABINO. Yes. I never had a mask, but the men that were bringing the people out, they did have masks on.

Mr. LUKEN. Did you notice anything about the furnishings? Of course, we understand you were not there for an inspection and we do not want to quiz you about it, just tell us what you did observe about the furnishings, combustibility, the fire safety.

Captain SABINO. I am ashamed to say, but I really did not look at anything from that viewpoint. Everything just seemed plush and elaborate.

Mr. LUKEN. Did you notice the open stairway?

Captain SABINO. There was a stairway over to the right, but I did not really pay much attention to it. Like I said, I fit in with the rest of the people in this respect, that I was out for the night and did not really look for the fire hazards and life hazards that did exist.

Mr. LUKEN. Then the only thing you heard from any of the employees as you went out the first time was that one waitress said, "You have to go out." Were there two of them or was that the same one?

Captain SABINO. There was a hostess at the end of the corridor and she is the one that moved our line out.

Mr. LUKEN. A hostess in the corridor here? [Indicating.]

Captain SABINO. Yes, sir.

Mr. LUKEN. That was right next to the cabaret room?

Captain SABINO. Yes, sir.

Mr. LUKEN. And she moved the line.

Captain SABINO. Right.

Mr. ECKHARDT. Captain, thank you very much for your testimony. I cannot help but be impressed about your going back in, and your presence of mind in serving on that evening. Thank you very much.

Mr. LUKEN. Thank you, Captain Sabino.

Mr. ECKHARDT. Mr. Charles Collini? Mr. Collini, would you give your name and your position for the record, and then proceed in your own manner.

STATEMENT OF CHARLES COLLINI, ASSISTANT CHIEF, CINCINNATI FIRE DEPARTMENT

Mr. COLLINI. Do you want what transpired with me that evening?

Mr. ECKHARDT. Yes. If you will just give your statement, and then we may want to ask you some questions as an expert in this field, which we understand you are.

Mr. COLLINI. I was the assistant chief on call that evening, and I received a phone call at approximately 9:45 from a party unknown, that they needed oxygen at Beverly Hills, there was a fire in progress, and a lot of people were down. I informed them we did not store that much oxygen, however, they could possibly procure it at Greater Cincinnati Airport due to the amount of oxygen they store there.

At that time someone interrupted the operator and said they needed additional ambulances over there due to the numerous persons that were down.

I immediately ascertained how many were available and ordered two of our paramedic units to be dispatched. I, at that time, responded myself. I, upon arrival, introduced myself to Mayor Paul and the chief of Southgate, and I aided in the firefighting operations from that point on.

I arrived at approximately 10:15, and I worked until approximately 3 in the morning and then returned to Cincinnati.

Mr. LUKEN. If I could interrupt, could you tell us pretty much what you did and what you found—if you want to refer to the chart—when you get there at 10:15?

Mr. COLLINI. When I got there I had to park down on Alexandria Pike due to the heavy traffic, and I ran up the hill. I met the mayor and the chief right under the canopy, introduced myself, and asked them if there was anything else they needed; and they said they did not.

At that time I said I would help getting some lines laid to try and get people out. So, I supervised taking a line back here to try to get into this area here, to no avail.

Mr. LUKEN. Would you explain that, why was it to no avail?

Mr. COLLINI. Primarily, there were the 2 hydrants up there on the ground—I was told they discharged approximately 150 gallons, a very small amount. We laid a line back here, and I met the assistant chief of Fort Thomas—he was taking care of the operations in that area. So, I went in the back to see if I could aid in the back where the persons were all trapped back there. I ran into Assistant Chief Quiter of the Newport Fire Department, he was taking charge of the operations back there. So, I came back out, and I recommended to the chief

of Southgate that we set up a command post for the purpose of coordinating all the activities and also to get the crowd out—people were still milling about at that time in their evening clothes, walking about the bodies back there strewn all over the hillside. So, we did set up a command post at the front of the building so that fire and police procedures were directed from there.

Mr. LUKEN. Did you go to the back?

Mr. COLLINI. Yes; I did.

Mr. LUKEN. And when did you go back there?

Mr. COLLINI. That was at approximately 10:30, as I said, with Chief Quiter back there.

Mr. LUKEN. Was the fire in progress, then?

Mr. COLLINI. The fire was in progress; yes.

Mr. LUKEN. In that part of the building?

Mr. COLLINI. In that part of the building, no, it had not advanced to that part of the building. There was a very heavy volume of smoke coming out the exits.

Mr. LUKEN. Point out the exits, would you?

Mr. COLLINI. There was a double exit here, and a double exit here toward what I would call a lean-to, sort of a one-story building. You went in, and there were the double doors here.

Mr. LUKEN. When did you notice that?

Mr. COLLINI. What is that, sir?

Mr. LUKEN. What you just described. Did you go inside?

Mr. COLLINI. Yes, I did; later on.

Mr. LUKEN. When?

Mr. COLLINI. When I went back.

Mr. LUKEN. When was that, the next day?

Mr. COLLINI. Oh, no; that evening.

Mr. LUKEN. About what time, about 10:30, you mean?

Mr. COLLINI. Oh, no; when we got in that area it was more in the neighborhood of 11:30.

Mr. LUKEN. Did you have a mask?

Mr. COLLINI. No; I did not.

Mr. LUKEN. The smoke was still heavy?

Mr. COLLINI. By that time it had pretty well vented itself through the roof—the smoke had left.

Mr. LUKEN. So, at 10:30 when you went back there you could not get in there because of the smoke, I assume; is that right?

Mr. COLLINI. Right.

Mr. LUKEN. And what did you observe, then, around that exit?

Mr. COLLINI. The firefighters from various fire departments in Northern Kentucky, I assume, were at that time bringing out bodies. At that time there were no more persons alive in there—they were bringing the bodies out and were using fresh-air masks.

Mr. LUKEN. That was at 10:30?

Mr. COLLINI. 10:30 to 10:45.

Mr. LUKEN. Nobody was going in, except with a mask?

Mr. COLLINI. That is right, you could not make it in there without a mask.

Mr. LUKEN. There seemed to be plenty of masks?

Mr. COLLINI. Most of the firefighters had masks, right, that went in.

Mr. LUKEN. Who was there from Cincinnati, at that point?

Mr. COLLINI. Just myself and the two rescue units. Officially, sir?

Mr. LUKEN. Any way.

Mr. COLLINI. Well, there was myself.

Mr. LUKEN. Did you see Captain Sabino?

Mr. COLLINI. I met Captain Sabino in this area. When I talked to Chief Quiter from Newport, he said he was taking that operation. I went back again and tried to get that line back in there and maybe make some attempt to cutting off the fire. When I got to this point here, I ran into Captain Sabino. We had to move some bodies off of this hill because this started to collapse, this exterior wall. The assistant chief of Fort Thomas was with me there at the same time to pull these people down the hill a ways.

Mr. LUKEN. How about these exits you are pointing to right now, what was going on there when you got there at 10:30?

Mr. COLLINI. When I got there, nothing. We were trying to get a hose line there.

Mr. LUKEN. No people around?

Mr. COLLINI. Just firefighters.

Mr. LUKEN. No bodies?

Mr. COLLINI. There were some bodies. I crawled back in the area in here with another fire chief—I do not know where he was from, but he had a white hat on—we crawled back, and we came across a couple of bodies.

Mr. LUKEN. This was around 10:30 when you first got there?

Mr. COLLINI. Around 10:30; yes, sir. It was to no avail, again, as Captain Sabino pointed out, the smoke was only about 12 inches off the floor, and we just barely got back to the door. At that time we abandoned any hope.

Mr. ECKHARDT. Do you have any other questions?

Mr. LUKEN. What is your job with the Cincinnati Fire Department?

Mr. COLLINI. I am in charge of the Fire Prevention Bureau, the Arson Squad.

Mr. LUKEN. It was not exactly in that capacity that you got called over there, was it?

Mr. COLLINI. No; I also make all the extra alarms of fires, and when I am on call any extra company fires, any fires of any magnitude.

Mr. LUKEN. Well, this is a congressional committee which is looking into what the national situation is. Since you are in charge of fire inspection for a large municipal fire department, perhaps you could give us some counsel on just what the codes are and what the needs are. Would you like to tell us about that without me asking you specific questions, at least for the moment?

The legislation that is before us would be a legislation that would authorize the Commerce Department to make a study of the possible need for a Federal fire code. And of course, concomitant with that, we would be looking at what Federal assistance might be given, other than codes. Could you tell us what you think about that general subject?

Mr. COLLINI. Well, I think at the present—and I can only speak from my own experience—the city of Cincinnati is well covered by our own fire code, and also the Ohio State Fire Code in conjunction with the Ohio and Cincinnati Building Codes.

I do think anything that would come from the Federal level, such as a Federal fire code, would be positive, welcome. However, I think the main thrust in this area would be aid in enforcement. As I said, I think our own local codes and State code are adequate. However, manpowerwise, we need help in enforcement. Again, as I stated, I think a national fire code would, if patterned after, let us say, the NFPA or a like organization, would put forth a minimum fire code which would have to be adhered to; and then let the States and the cities be more stringent, if they so desire.

Mr. LUKEN. Is there a national minimum fire code now?

Mr. COLLINI. No; there is not.

Mr. LUKEN. Are you familiar with the National Model Code?

Mr. COLLINI. Some of them. There are several.

Mr. LUKEN. They are not uniform.

Mr. COLLINI. No; they are not.

Mr. LUKEN. They are not in effect anywhere.

Mr. COLLINI. Not to my knowledge.

Mr. LUKEN. Of course, the State of Ohio has its own code.

Mr. COLLINI. The State of Ohio has adopted its own fire code which was just updated January 1 of this year. Now, the city of Cincinnati, as I stated, we are more stringent than the State, which we are permitted to by law, to have by home rule.

Mr. LUKEN. Now, in general law enforcement, Congress has passed the Law Enforcement Assistance Act, and there is the obvious connection between the FBI and the local police departments. Is there anything like that in fire, either one?

Mr. COLLINI. No; there is not, not on the Federal level.

Mr. LUKEN. There is no Fire Assistance Act, is there?

Mr. COLLINI. No; there is not.

Mr. LUKEN. What is your relationship with any Federal fire agency; that is, your department's?

Mr. COLLINI. Well, I would have to say basically, through my own efforts—as other individuals that are members of the NFPA, the National Fire Protective Association. However, recently the National Fire Prevention Control Administration has been enacted, and they have now a building in Washington which will put forth information that is collected from the different fire agencies throughout the country.

Mr. LUKEN. That serves as an information center.

Mr. COLLINI. Right, data collecting and information.

Mr. LUKEN. Do you get much data from them?

Mr. COLLINI. Not at the present.

Mr. LUKEN. So, the efforts are minuscule up to the present time?

Mr. COLLINI. Yes.

Mr. LUKEN. How would you describe them?

Mr. COLLINI. I would say that they have been. In the past year they have introduced the universal reporting system where the State of Ohio—originally six States—were picked to report all instances of fire to a State and then a Federal level with a central computer center which diagnoses data and will help us in the future to locate fire companies, inspection districts, enact fire codes, et cetera. This has been in existence approximately 1 year.

Mr. LUKEN. I would like you to comment on whether if we had a study, a complete study undertaken by the Commerce Department,

by the National Fire Prevention Control Administration and they had the resources to do it, we could come up with a Federal fire code, perhaps. We could instead come up with something short of that, which is a description of how our National Government could be of assistance in adopting, or promulgating uniform codes, research, all kinds of assistance, all kinds of possibilities; is that not right?

Mr. COLLINI. That is true.

Mr. LUKE. And in many areas of the country, would you say that is needed?

Mr. COLLINI. Very much so, yes. I would say primarily needed in the rural areas where there is, as was brought out here, a lack of funds.

Mr. LUKE. Even in Cincinnati, a major city, where you have a fire department which has been around for a long time, even there, as you have described it, you have established this relationship and you are looking for more assistance.

Mr. COLLINI. Yes. We need more assistance in the data-collecting area and the laws that pertain, anything that would be enacted.

Mr. ECKHARDT. Thank you very much, sir.

Mr. LUKE. Thank you, Captain.

Mr. ECKHARDT. Mr. Lugannani? Chief, would you please identify yourself for the record?

STATEMENT OF BERT LUGANNANI, CHIEF, CINCINNATI, OHIO, FIRE DEPARTMENT

Chief LUGANNANI. I am Bert Lugannani, chief of the Cincinnati, Ohio, Fire Department.

Mr. ECKHARDT. Do you have a statement, or would you like to make a brief opening statement?

Chief LUGANNANI. No particular statement except perhaps possibly what I did in an official capacity the night of the fire.

I was at a fire-prevention meeting at the time and was notified through the department of communication that there was a serious fire at Beverly Hills. I called the fire alarm office, and they informed me that they had notified Chief Collini, who was on call, and that he had authorized the dispatching of two of our rescue units. I asked him to go on over and report back what was needed. I responded to our fire alarm office, and our safety director and city manager also responded to the fire alarm office. We stayed in touch with Chief Collini at the scene of the fire until about 1:30 to 2 o'clock in the morning.

Mr. ECKHARDT. Chief, how many firefighting agencies are there within the Greater Cincinnati area?

Chief LUGANNANI. I really cannot give you an exact figure. We have somewhere around a little over 50 in Cincinnati and Hamilton County. I cannot give you a figure on Kentucky.

Mr. ECKHARDT. So, there would be something in excess of 50, counting the entire urban area.

Chief LUGANNANI. Right, I would say we are running 75, or more,

Mr. ECKHARDT. Are these associated with the municipalities, or are there even more firefighting units than there are municipalities in the total area?

Chief LUGANNANI. I am not sure, again. I would say probably the majority would be corporations, something like was described this

morning in testimony. The small percentage would be municipal departments.

Mr. ECKHARDT. I know in our area we have a number of municipalities, and we have some communities within the county which are not incorporated communities, but which may have volunteer firefighting facilities. Is there something like that in this area?

Chief LUGANNANI. Yes, that is true, there is.

Mr. ECKHARDT. I was curious about Mayor Paul's statement about how those things are run. I understand they are corporations, I suppose nonprofit corporations?

Chief LUGANNANI. Right.

Mr. ECKHARDT. Probably under some specific statutes?

Chief LUGANNANI. Right. I am not too familiar with it because it is not in our area.

Mr. LUKEN. They do not have them in Ohio, do they?

Chief LUGANNANI. Yes, in Ohio.

Mr. LUKEN. In the townships.

Chief LUGANNANI. In townships and corporations formed under State law whereby they can provide the fire protection for the community.

Mr. ECKHARDT. But is that associated with the municipal corporation, or is that a separate corporation for the purpose of the firefighting unit?

Chief LUGANNANI. It is separate, but I am sure they are under the jurisdiction of the local authorities, whoever they might be.

Mr. ECKHARDT. Very much like Mayor Paul described for the State of Kentucky.

Chief LUGANNANI. A municipality would have to engage in a contract with the department and approve it. I would assume they have jurisdiction over what they do.

Mr. ECKHARDT. I am puzzled by this kind of an organization. Mayor Paul said these contracts are for a year, and I know there must be some very expensive firefighting equipment associated with them. Those trucks cost a lot of money these days, I understand. How do they manage to set up a corporation for the purpose of firefighting and expend a considerable amount of capital if they only have a 1-year contract? I presume they do not go farming around for fire services with their trucks. They are pretty well associated with the communities, as I understand it.

Chief LUGANNANI. That is right. Usually the protection unit in the community stays there. I do not know of any changing from one organization to another. They are largely volunteers. They have various social affairs and functions by which they raise funds. In some areas there is taxation to cover a certain amount of the cost of fire protection.

Mr. ECKHARDT. From your experience, do they work pretty effectively, or are they pretty amateurish; or perhaps they make up what they lack in professionalism by dedication. How would you evaluate it?

Chief LUGANNANI. I think that is pretty hard to answer, I think you can find just about any level of efficiency in the units. Some are very well trained and I think capable in the handling of the situations they normally deal with. Some are strictly social affairs with relatively

low efficiency. I think you can find practically any level of efficiency in volunteer, as well as in probably paid departments.

Mr. ECKHARDT. How much coordination and cooperation is there between various firefighting units, like this here? This was a very dramatic fire, certainly the most dramatic and extensive that this community has seen in a great while. How much cooperation is there between units in a situation like this? Of course, I understand that when you have a tragic holocaust like this it requires that people act way beyond the call of duty. But in a fire that is beyond the capability of the local fire department, what is done with respect to cooperation between, say, the city of Cincinnati and the fire department of a relatively small community; or between a small community and other communities lying in the general vicinity?

Chief LUGANNANI. Well, most all areas have what they call mutual aid contracts and agreements, and those exist here. Hamilton County has a mutual aid agreement with practically all the departments, and Kentucky has the same thing. The major disadvantage of this type of an organization is that they are too diversified, really, to organize effectively as a group. The systems are not set up that way in this area at this time.

Mr. ECKHARDT. Captain Sabino was saying that when he happened to be on the scene, he tried to use certain terminology that is used in connection with the Cincinnati Fire Department; however, it was understood in a different way by persons working within the corporation that serves that area. That would indicate to me that there may be some lack of uniform training amongst these departments.

Chief LUGANNANI. That is true; you find training varies across the country among the departments. I hear terms used on the west coast that I do not recognize, in large departments; and I am sure there are terms in this area that they would not recognize. I think that is—hopefully—one of the objectives of the NFPCA to try to bring more uniformity in the fire service across the country.

Mr. ECKHARDT. It is easy to see how terms might not be understood between here and San Francisco. I sometimes have difficulty understanding terms of my fellows from New England on the floor of Congress. But it would seem that terms would be pretty much the same across the Ohio River.

Chief LUGANNANI. No. Really, the relationship between the smaller departments and our department is rather sparse, I would say. We have kind of stood aloof in Cincinnati more or less on the assumption we could handle anything that we would run up against in the city. There is actually very little cooperation with the surrounding communities as far as mutual aid, integration of training, and things like that.

Mr. ECKHARDT. So, might one conclude that one may be more or less protected in his person and his property from the standpoint of the danger of fire, depending on where one lives within the Greater Cincinnati area, than persons living elsewhere in the general area?

Chief LUGANNANI. Well, you can find variables between any area and location, possibly. You would find some variables in a larger city between the busy, very active companies, and some of the less active companies in the outlying areas; you would notice some differences.

Mr. ECKHARDT. And yet, there is very open and free movement of population between this entire Greater Cincinnati area, I assume. I

imagine a lot of these people at the Beverly Hills Supper Club were from Cincinnati, from the Ohio side of the river—perhaps most of them.

Chief LUGANNANI. That is true. But firefighting services are rather peculiar; experience means a lot to develop good firefighting abilities. This is hard to come by and has to be coupled in with training. Getting all of the people that you have to have on-the-job training at a level that you maintain a uniform type of efficiency in operation is a very difficult thing. Our ability to do this becomes less all the time because of the economic conditions of the cities.

Mr. ECKHARDT. Now, are there any kinds of regulations with respect to the capacity of fireplugs? I understand these were rather low-capacity fireplugs that really were quite inadequate for a fire of this magnitude. Is there any kind of municipal requirement or standard in the city of Cincinnati?

Chief LUGANNANI. Yes; we do have a standard, we do have a code, that requires the hydrants to be located within certain distances of all property. Volume is estimated on the demand for a fire on that property, and we require it to be there when the building is built. The problem we run into, again, going back before the present codes, what was there at that time. In other words, you find some areas in Cincinnati where our water is not what we would like it to be. You just cannot replace mains and hydrants at frequent intervals. Basically, we have a good water-supply system and do cover by far the greatest majority of the city with good water supply.

Mr. ECKHARDT. And I suppose the regulations within various municipalities differ with respect to the availability of water for the purposes of firefighting?

Chief LUGANNANI. I would say so. I cannot say positively, but I would think it would be safe to say that many areas just do not have regulations for water for firefighting purposes.

Mr. ECKHARDT. The Governor of Kentucky appeared before us. Were you here when he testified?

Chief LUGANNANI. Yes.

Mr. ECKHARDT. He indicated that he felt—if I quote him correctly—that it would be helpful if the State established certain standards and adopted a general responsibility for fire prevention and control, and then permitted, where a municipality or local area was able to abide by these standards, the delegation of authority to carry out the standards established at the State level.

Do you have any reaction to that type of suggestion?

Chief LUGANNANI. I think, if I understood what he was saying, basically this is about what we do in Ohio. The State fire marshal has the jurisdiction and authority over fire safety in the State, and the chiefs of the communities are delegated authority from the State fire marshal. They operate, to some effect, under his authority.

Mr. ECKHARDT. Yet, you say that even within Ohio there are wide discrepancies in ability and training as between, for instance, a full-time professional force in the city and a volunteer force that may exist in a relatively small community within that entire metropolitan complex.

Chief LUGANNANI. Really, the State fire marshal does not get into the area of firefighting and suppression; it is more in the area of prevention. Although his authority is delegated to the municipal fire

chiefs, the municipal fire codes may be much more stringent than the State code. So, what applies in the city may not apply in the county, or rural areas.

Mr. ECKHARDT. They may be tougher; they may be more lenient. They may be tougher, but not enforced; more lenient, but enforced? You may have every variation, even within an area which is more or less homogeneous with respect to the population and development.

Chief LUGANNANI. That is true, and that causes many problems.

Mr. ECKHARDT. I think we are developing in this country a very different situation than existed a quarter of a century ago. We have population areas that are the same throughout a relatively wide geographic area. In my area of Houston and Harris County, you have some 25 to 30 municipalities, but these are not any longer villages, but have all been encompassed within a single population area. It would be very difficult to make any generalization about the concentration of population within the city of Houston itself, and within the area surrounding it, like Pasadena, Deer Park, Center City. And then, farther out you do have a distinguishable town, Baytown, toward the gulf. I think this may be a rather typical situation in the country.

Yet, where persons are equally endangered, and where the problem is essentially the same with respect to concentration, there can be a great discrepancy of ability to engage in the very necessary and important process of fighting fire.

Chief LUGANNANI. That is very true.

Mr. ECKHARDT. Would you think that was true in this area? I certainly would say it would be true in Houston.

Chief LUGANNANI. Yes; it is true in this area because, of course, the change has been rapid. It has not been too many years that we have gone into this rapid expansion, and what used to be strictly residential and rural areas beyond the city limits of Cincinnati, now are large commercial areas, some high-rise buildings, and things of this nature. The only thing they do not have is the old-core, inner-core city type of problem to deal with. They still have some very serious fire problems.

Mr. ECKHARDT. Would it be, in your opinion, feasible to attempt to set up at the State level some type of minimum standard of fire protection and firefighting training, at the same time recognizing that many fire departments have developed excellent techniques and excellent reputations with respect to firefighting? We would not want to destroy that which already exists and does an effective job, but rather to create, perhaps, similar districts, perhaps larger than any given small municipality that would afford the same sort of level fire protection. Would that be at all feasible, in your opinion?

Chief LUGANNANI. It is certainly desirable. I think where you get into so many problems with this type of thing, right now there are things in progress that tend to go in that direction. We have the NFPCA, the National Academy is gearing up to try to assemble information on all phases of training, and so forth, and disseminate that to the country. Hopefully it will be picked up by local units of State level and probably lesser, eventually.

The State of Ohio has recently built an academy and is in the process of staffing it, and providing training programs. But I think the

real problem is the ability of the smaller community to find time for their people to go to these training facilities, time and money.

Training for fire service work is something you cannot do once and then let it rest for a year, it is something that has to go on continually. There is a number of pieces of tools that a fireman has to work with; there are various methods he has to engage in. It is a very complicated job when you get right down and analyze what you have to do to provide good protection. That is something that a man ought to be working with almost constantly to stay really efficient on it.

Mr. ECKHARDT. Of course the unit for firefighting is usually, even within a big city, not any larger than any ordinary outlying municipality. Is that not correct? I mean, you would have a number of fire stations in the city that would cover areas not substantially larger than the whole of a fair-sized outlying community within the county. Would that be correct?

Chief LUGANNANI. I am not too sure. Usually the individual company in the city covers a much smaller territory than the outlying departments. They are dispersed, usually, more than the inner-city departments.

Mr. ECKHARDT. So, since the unit is no larger in the city than it is in the outlying areas, it might be possible, would it not, to work out some cooperative method between the municipalities that would roughly be comparable to that of the big city?

Chief LUGANNANI. There are a lot of pros and cons on this. Really, it is one of the solutions for providing good fire protection for a community. There is a real problem involved in trying to make it work, though. Some cities have made it work fairly well, and others find it very difficult to find that kind of cooperation.

Mr. ECKHARDT. I would think there might be a problem in determining just who is in charge as may have existed, at the Beverly Hills Supper Club situation. It seems like there was ultimately an organization of the effort, but that had to be more or less drummed up at the spot.

Chief LUGANNANI. Well, again, it depends on your area. I do not think you can deny that there is a certain amount of prestige with the various chiefs in charge of departments. In Hamilton County, I think there are pretty well established lines of authority among all of our departments whereby the chief in charge of the fire, where the fire originates, is the man in charge of the fire. Other people coming in respond to him and cooperate with him. Certainly, that is the direction of our department to our staff people, if they do respond they take that course of action.

Mr. ECKHARDT. I see. Mayor Paul was stressing not so much the question of the organization of fire fighting activity, which he said he thought was quite good; but he was concerned with the problem of enforcing fire codes. He stated that persons in a relatively small community, lacking the type of specialized experts that might exist elsewhere, have some difficulty in learning the requirements of the code in the first place. And second, in engaging in adequate, professional inspection. Do you see anything like that in your experience with respect to the Greater Cincinnati area?

Chief LUGANNANI. Well, my knowledge of inspection in the outlying districts is not too great. I would say that going back a few years, it was pretty well nonexistent. I think very little was done, and now

there is not much work being done in the line of fire inspection by the local departments. I do not think that you could very well ask these volunteer firefighters to learn fire codes and going out in their spare time to inspect buildings; that does not seem realistic.

Some of the departments, part-paid departments around the community do have paid inspectors, and I think they do a real good job. But I think that is a minority.

Mr. ECKHARDT. Now, if the situation you described is in fact correct; namely, that inspection is much more lax outside the city itself, do you know whether this encourages businesses, institutions, restaurants, and recreational endeavors like the Beverly Hills Supper Club to locate in areas outside the city?

Chief LUGANNANI. Very much so. I have run into this ever since I have been in staff position at the department, where we would try to get architects and builders to put certain things in which we felt were necessary for good life, safety and fire protection, and the answer we would get was, "Well, it is going to cost too much, we will go some place else and build."

Now, not too many years back in Hamilton County the people would go out in the county and build buildings with much less restriction on them than in the city. I think that has been corrected to a large extent in recent years.

Mr. ECKHARDT. But if we have disparate regulations, as between the city and the outlying districts, we create a burden on those who enforce the law. In that way we perhaps tend to relax enforcement even in the cities, or at least we create that tendency if the result is for business to run away, do we not?

Chief LUGANNANI. I could point to some buildings where it has worked exactly that way.

Mr. ECKHARDT. And of course the same thing could exist between States. If the standards are extremely high within one State and lower within another in a place like the Greater Cincinnati area, or in a place like the Kansas City, Mo., and Kansas City, Kans., area, or the El Paso area, or the Texarkana area, both in Texas, or in many other localities in the country, we might create a situation in which that State which does the best job with respect to fire control would suffer from the relocation of business.

Chief LUGANNANI. That is right. That is a problem we have faced for many years, and still do. I have been a strong advocate of some type of regulations at the Federal level to prevent that from happening. Now, I hesitate to recommend any particular type. I think there is a lot of concern about Federal regulations on codes and enforcement of codes, but I think some type of minimum standards, or requirements for States to meet certain standards—while the State and local people do enforce the codes and have the jurisdiction in that area—may be the answer. We have many codes, good codes, I think, in this country. I think we need to boil it down to some standard code so there is not so much confusion.

I think just recently the State has been concerned 'about the State building code, there have been meetings going on as to whether it should be the one, or the other. They are probably both very good, but I think that is the type of thing that does create confusion because there are variances in the various codes that are available, model codes.

Mr. ECKHARDT. And yet, we may have the worst of all worlds because the codes are national in scope; but they are only adopted on a voluntary agreement of either the State or the locality. So, although we have in effect a national code which is adopted voluntarily it tends to be uniform only among those who choose that particular national code. There is no minimum standard.

Chief LUGANNANI. That is true.

Mr. LUKEN. Will the chairman yield?

Mr. ECKHARDT. Surely.

Mr. LUKEN. There are actually four codes, are there not, four model national codes which vary considerably? So, even the States that adopt one of the national codes will not necessarily adopt the same national code, and there may be great dissimilarities. Is that not right, Chief?

Chief LUGANNANI. That is right. I think the requirements for life safety—and we are talking about life safety, really—can be easily recognized, identified, and should be incorporated in any of the codes used.

Mr. LUKEN. Does the lifesaving code do that?

Chief LUGANNANI. The life safety code usually is not adopted as such.

Mr. LUKEN. If it were, is it fairly complete?

Chief LUGANNANI. I think it covers most areas. The features of that code are usually incorporated into the building codes of the cities and States; it is part of the total building code system.

Mr. ECKHARDT. From your experience, would you say that the national codes and the local response to national codes are geared mostly to property, or to individual safety; or is it about equal?

Chief LUGANNANI. Those things tie so closely together, I think it is difficult to separate them. Really, you have to make the property safe to provide individual safety. The life safety code itself deals with life and personal safety. Of course most of the features have to be built into the construction of the building. So, it becomes property.

Mr. LUKEN. Would the chairman yield on that?

Mr. ECKHARDT. Sure.

Mr. LUKEN. Chief, if you had a Beverly Hills in Cincinnati, would you inspect it?

Chief LUGANNANI. Yes.

Mr. LUKEN. For what?

Chief LUGANNANI. For practically everything.

Mr. LUKEN. I direct your attention to what happened here. Name a few.

Chief LUGANNANI. Well, in Cincinnati the fire division is responsible for the enforcement of the fire prevention code. Now, the building code controls the construction of the building. The features that go in there in the control of fire, such as sprinkler systems and so forth, are put there under the building code.

After it is constructed it is up to the fire division to see that the people occupying the property adhere to safety practices within the property.

Mr. LUKEN. Particularly with an assembly hall like you had at Beverly Hills.

Chief LUGANNANI. That is right.

Mr. LUKEN. Or Netherland Plaza.

Chief LUGANNANI. That is right. The things that our people would pick up, or should pick up are additions that might be going on in the place. They should check to see if permits have been taken out. If the permit is taken out, the building department makes the inspection.

Mr. LUKE. At what times are inspections made by your members of the Cincinnati Fire Department with regard to an assembly hall?

Chief LUGANNANI. Well, are you talking about the time of the day?

Mr. LUKE. Yes.

Chief LUGANNANI. We have two shifts of inspectors. One of course works the normal 8 to 5, and the other comes on at about 2 and works until about midnight, something like that. I am not too sure of the hours, but there is a day and an evening shift so that they can get into a place of public assembly, a nightclub, at the time of peak occupancy.

Mr. LUKE. You think it is important, then for a nightclub or any public place of assembly that the fire department inspector get there at points of peak occupancy?

Chief LUGANNANI. That is the only way you can see the hazards. We have not been doing this for too long, I started this just about 5 years ago. We used to inspect during the daylight hours. The inspector would go in, look around, the place was empty and everything looked fine. The usual routine, housekeeping and so forth they could correct, but they would not see the real problems at night.

Mr. LUKE. They have not had any problems with overtime, having the people out inspecting in the evening?

Chief LUGANNANI. I have some overtime money in the budget.

Mr. LUKE. I know you have problems with overtime, but you have not had any Federal problems with overtime.

Chief LUGANNANI. Not so far.

Mr. ECKHARDT. For instance, if this place had been inspected in the daytime one would have assumed that the ramp was kept open for ingress and egress; that the location of the tables and chairs would be in accordance with a somewhat orderly placing of those chairs before a crowd had drawn in additional chairs to jam entrances; and that things of this nature would not be observed in the daytime.

Chief LUGANNANI. That is right. It is very difficult to control this type of thing because to have people on the scene and to watch this is quite difficult. With us, we used to have quite a few people that we could send out inspecting, but our manpower has been cut down drastically in the past 2 years. We just do not have the people any more to send out. We have two men we put on this night inspection routine, and they can cover only so many places.

Mr. LUKE. But if you had a major place that was doing it continually, you would catch them.

Chief LUGANNANI. Oh, yes, and we would have them in court.

Mr. LUKE. You would have them in court for overcrowding?

Chief LUGANNANI. Right. Overcrowding, or whatever the violation was.

Mr. LUKE. Do you enforce overcrowding?

Chief LUGANNANI. So far we have had a couple.

Mr. LUKE. You had Mount Adams recently.

Chief LUGANNANI. We just took them into court, from Mount Adams, for overcrowding, locked fire doors.

Mr. LUKE. Locked fire doors?

Chief LUGANNANI. Right.

Mr. LUKEN. Do you find that very often?

Chief LUGANNANI. Quite frequently, that is one of our biggest problems. They will chain the fire doors or do something because the guy gets inside, and then he opens the door and lets his buddy come in from the outside; that is what they try to prevent.

Mr. LUKEN. Runs out on the check?

Chief LUGANNANI. Runs out on the check, or vandalism; theft, things like that. That is one of the biggest problems.

Mr. ECKHARDT. Another problem that would not have been noted is whether or not exit doors are "openable" from the inside. There has been an indication that those doors had to be unlocked before the persons could get out. Of course, you would expect them to be locked in the daytime when the place was not operating, I assume.

Chief LUGANNANI. Well, of course most of those type doors should be the panic bar type where they really are locked for entry from outside. But again, the problem comes about when people on the inside open the doors for someone on the outside and have them come in. Of course, crime is one of the big problems, we have that in our school here now. That is a continuing problem, and it is really a difficult thing to solve. The people from the schools do not want to jeopardize life safety in the schools; on the other hand they complain that people come in off the streets, bring in dope, crime, and other things into the schools and they cannot have supervision at every door to guard it.

Mr. ECKHARDT. That is no doubt a problem, but when a room like the Cabaret Room—how many people were supposed to have been in there?

Chief LUGANNANI. 1,300.

Mr. ECKHARDT. 1,300 people. It would seem justifiable in order to prevent larceny to keep two people at those two doors.

Chief LUGANNANI. I agree. I do not think there is any excuse for a situation like that.

Mr. ECKHARDT. I have often felt the same way about those who so loudly complain about losses from shoplifting but have no people to serve the customers.

Do you have any further questions?

Mr. LUKEN. Just a question or two, chief. In your training for firemen you have an academy?

Chief LUGANNANI. What we call a fire college.

Mr. LUKEN. That is the Cincinnati Fire College?

Chief LUGANNANI. Right.

Mr. LUKEN. Do you train just members of the Cincinnati Fire Department?

Chief LUGANNANI. Basically. Once in a while—very rarely—we have something going on where we invite other people to come in. We kind of have an open-door policy where, if any individual wants to take the training, they can do it.

Mr. LUKEN. Do many volunteer firemen from the outlying areas take your training?

Chief LUGANNANI. Very few.

Mr. LUKEN. Very few?

Chief LUGANNANI. I do not think we have had a dozen in the past 10 years.

Mr. LUKEN. So, it is not like the police situation where the Cincinnati Police Academy has trained the policemen from the outlying areas now pretty regularly, for some time.

Chief LUGANNANI. No; it does not work that way. Of course, again, I think the problem is, one thing we insist on, if a man comes into our fire college for basic training he must take the entire 3-month course. We do not want people just to take a little bit of it and going out, saying, "I was trained at the Cincinnati Fire Department." We would not have a complete training situation.

Mr. LUKEN. With reference to the Beverly Hills situation, you have seen the diagrams, I am sure, in the newspapers. You have been there, of course.

Chief LUGANNANI. A few times.

Mr. LUKEN. Not as an inspector.

Chief LUGANNANI. No.

Mr. LUKEN. But you have been there to banquets, I am sure. I am sure I have seen you there.

Chief LUGANNANI. Yes.

Mr. LUKEN. And for other events, the restaurant. Can you give us some insight into what you observed about the construction of Beverly Hills; and if it were in Cincinnati, what would you say about it? Let us say as to exits.

Chief LUGANNANI. Well, again, I hesitate to make specific comments. I would say, basically, we would not have an establishment like that in Cincinnati. I personally never felt comfortable in the place because of the crowded, closed-in situation that existed there; lack of obvious exits, and so forth.

Mr. LUKEN. Do you mean an obvious lack of exits, or lack of obvious exits?

Chief LUGANNANI. Both.

Mr. LUKEN. Which way did you mean it?

Chief LUGANNANI. Lack of obvious exits. It was difficult to see where they were and how you would get out quickly, if you had to move.

Mr. LUKEN. And how would you determine, if it were in your shop, in Cincinnati, how many exits would be needed for the cabaret room?

Chief LUGANNANI. That is something the building department figures, the number of exits, and so forth.

Mr. LUKEN. So, your inspector would have those criteria.

Chief LUGANNANI. That is correct. The way the law is written up, the building department determines the number of people permitted in a room of assembly. They give that figure to us, and we prepare a sign and post it on the place of assembly. We ask the owner to prepare a seating arrangement, it will accommodate so many people, and show us where the aiseways are going to be. When he provides that, we will approve it if it is satisfactory, or recommend changes, if necessary. He will have to post that and his maximum allowable occupancy in the room.

Mr. LUKEN. That is provided under Ohio law; is it not?

Chief LUGANNANI. This is the Cincinnati Fire Prevention Code. I am not too familiar how that compares with the Ohio State law, I presume it would be something similar.

Mr. LUKEN. So, if you walked into a restaurant, or place of public assembly in Cincinnati there would be a sign posted as to the maximum number of people in the room.

Chief LUGANNANI. There will be. We just started into this recently there are not many of them up yet.

Mr. LUKEN. How long ago did you start into it?

Chief LUGANNANI. We started, really, getting occupant level about 6 or 8 months ago. We have not started posting places until just recently. I do not think there are more than a dozen signs up right now.

Mr. LUKEN. Of course, it seems to me with this tragic lesson before us, that could serve a number of purposes. One would be to make people conscious of the necessity of noting exits, overcrowding, and so forth.

Chief LUGANNANI. We get a lot more cooperation now, than we used to.

Mr. LUKEN. Just like you did not feel comfortable at Beverly Hills; and one of the other witnesses that was just here, Mrs. Zorick, said that her husband would not have come in if he had noticed it. Of course, he came for the recreation and was not observing. But those of us who are not, except for an event like this, mindful of these conditions—I just noticed it recently in one of the outlying areas of Cincinnati, not in Cincinnati proper, when I was in this restaurant there was posted the maximum people in this room 75, or something, at the entrance. That makes you stop and think.

Chief LUGANNANI. Yes.

Mr. LUKEN. That makes everybody stop and think.

Chief LUGANNANI. Of course the enforcement, again, is the important thing.

Mr. LUKEN. Yes, but that makes everybody enforce it, to a certain extent.

Chief LUGANNANI. With this Beverly Hills situation fresh in mind they are here. I have a friend who came back from New York who happened to be at an affair back there with a fire official and he noticed the tremendous size of the crowd. He said, "Hey," and pointed to the sign on the wall; and he said, "Shh, don't say anything about that."

Those are some of the problems you run into. Enforcement is a big problem.

Mr. LUKEN. It is a big game to avoid the law.

Chief LUGANNANI. Yes.

Mr. LUKEN. I think the chief has testified very completely, I have no further questions, Mr. Chairman.

Mr. ECKHARDT. It seems a strange thing that a society would outlaw the Delta Queen and permit the Beverly Hills Supper Club. At least you can jump overboard.

Mr. Darrow?

Mr. DARROW. I have only one question. The building and electrical codes were improperly enforced at the time of construction of the Beverly Hills Supper Club, resulting in the improper installation of electrical wiring and fixtures.

How do inspectors ordinarily detect the existence of these very serious violations, violations which may have specifically contributed to the very ignition of the fire in this case?

Chief LUGANNANI. This is a really difficult problem. If you take construction of this type in this type of operation, the wiring is put in

and covered up, and concealed before an inspector can really see it; particularly if they do not want it to be seen. In the city, when the wiring is put in under the code they are supposed to leave it open until the inspector gets there and approves it.

Our men are really trained only to see the more obvious deterioration, or violation of the wiring codes and ask for corrections; or, if it looks bad enough, ask for an inspection by the bureau of electrical inspection. Of course, they are the technicians and the people who should be able to analyze the entire wiring system, loads, and so forth.

MR. DARROW. Does that mean, as a practical matter, that those responsible for enforcing electrical laws with respect to the electrical codes are in default of their responsibility or that fire inspectors simply are not capable of detecting those violations, reflecting clear limitations in the things that you can actually detect and correct?

Chief LUGANNANI. There is no way we can train our men to be thorough electrical inspectors, that is a full-time job and very complicated when you get into industrial wiring and things like that. I would think a person could put up a new building, new wiring, completely ignoring codes. A firefighter could inspect it and probably could miss much of it, or maybe all of it, if it looked good, looked new, and he had no way of determining what loads were being placed on it. He would not know there was a violation of the code.

MR. DARROW. I just have one further question. The Governor has pointed out in his report that there was a point at which the garden room was 90 percent finished when a representative from the State fire marshal's office happened to walk through the room in an official capacity, noticing that there were a number of clear violations, not the least of which was the absence of firewalls and fire doors. He requested that there be some sort of corrective action, although the corrections of the club's owner only diminished the extent of violation, rather than eliminating it.

As a practical matter, within your experience, do you find that it is difficult or impossible to order somebody like Mr. Schilling to virtually tear down the garden room, and to tear down the cabaret room in order to make him comply with the law; or is that in fact what you ordinarily do?

Chief LUGANNANI. That is what we do. We just closed a place, a tavern out here about three or four nights ago, ordered them to cease and desist. They are not operating as far as I know.

MR. DARROW. And they will not be permitted to operate until they take whatever appropriate actions are called for?

Chief LUGANNANI. Yes.

MR. DARROW. So, you are saying that the only way Schilling could have complied with the law, given the nature and the magnitude of the violations with respect to the garden room, was by tearing down those parts of the building that were in noncompliance?

Chief LUGANNANI. It is possible they would have had to go that far.

MR. DARROW. All right, that is what I wanted to find out. Thank you.

That is all, Mr. Chairman.

MR. ECKHARDT. Thank you, Chief.

Well, I want to thank all of the witnesses who participated. We are particularly appreciative of the State of Kentucky's cooperation as well as the people of Cincinnati in official capacities.

We think we have an extremely important issue that needs consideration in some depth. This entire matter has been brought to my attention, and brought forcefully to both this subcommittee's and the full committee's attention by my colleague, Congressman Tom Luken, from this area, who has worked and given many, many hours of preparation to this bill, and many hours of study to this very important problem. His area gives us an example of the problem but such a tragic and forceful example that it is hoped that one good thing that may come out of it is more sensitive attention to a problem which is next to the automobile as the greatest killer of our citizens.

Thank you again for your patience and attendance. The subcommittee will now stand adjourned until the call of the Chair.

[The following statement, letters, and mailgram were received for the record:]

STATEMENT OF DR. RANDALL W. A. DAVIDSON, PRESIDENT, INTERNATIONAL SAFETY INSTITUTE, INC., NATIONAL COMMISSIONER FOR HEALTH AND SAFETY U.S. INSTITUTE FOR THEATRE TECHNOLOGY

The Beverly Hills Supper Club Fire was not the first, nor will it be the last conflagration in the area of public entertainment facilities.

I have visited, observed in operation, and inspected over five thousand such facilities in this country, and continue to do so on a daily basis, and I find that the Beverly Hills Supper Club Fire is typical of the situations found in this country. The reasons for this type of devastation are not always simple. If one examines the records with exactitude and consults the public records in every instance, they will be able to glean specific information as to violations of building codes, preplanning for emergencies, fire and life safety code violations and lack of correct fire suppression materials.

My work concerning the analysis of public assembly and entertainment structures, dates from 1965. It is with this experience, and with the added corroboration of experience and observation from public records and from confers in the safety, health and fire prevention field, that I make the following remarks to the Subcommittee on Consumer Protection and Finance.

1. Upon visiting structures similar to the Beverly Hills Supper Club one can see that the process and quality of construction has badly deteriorated over the past 25 years. It has been my experience to find substandard wiring, poorly plumbed facilities, lack of proper fire suppression materials, many flammable decorations, lack of flame retarded materials, violations of the National Electrical Code, violations of the NFPA Life Safety Code, overloaded beams, cosmetic treatment of and hiding of hazards by painting over them or erecting cover-up walls, and malfunctioning equipment. I believe that major buildings in this country are in the same unsafe condition.

2. Buildings of the same type as the Beverly Hills Supper Club are, in my experience, seldom inspected carefully. Enforcement of existing Codes and Standards and ordinances is not carried out.

3. Many insurance loss control agents, fire personnel, building inspectors, as well as other governmental personnel, lack training and expertise in the day to day operations of this type of structure. It is one thing to have laws and codes applied, and quite another to have them properly observed in operation. There is, in my experience, a great need for specialized training in this field.

4. Poor evaluation and analysis of the use of buildings leave owners and managers with a false sense of security about their buildings.

5. Preplanning of all types, especially for any emergency situation, is extremely haphazard in these types of operation. Conscientious and responsible conduct is lacking. Application of principles of good training is sorely lacking.

6. Procedures and methodologies of securing safety applications must be sought for this type of occupancy. Training is only one consideration. Modern technology has the means to apply new procedural methods for combating this type of hazardous situation. Laws are there to be applied. Task forces and specially trained

personnel, with the latest equipment, can make the difference in averting disaster, if applied comprehensively. The laws we have are not being enforced adequately,

7. Federal buildings are also subject to the same problems as ordinary public assembly facilities. Recall, please, that Special Services has the largest number of "Beverly Hills Supper Club" facilities in the world.

8. The U.S. has the highest fire loss of any country in the industrialized world. Fire consumes much of our natural resources.

9. It is my belief that greed is a major contributing factor in most of our fire losses. In club after club, major buildings used by the public for entertainment are lacking in material respects because the owners are unwilling to spend the necessary funds for health, safety and fire.

10. There is each year \$14 billion in liability losses, which includes medical, property, insurance, and replacement losses. This is increasingly a national concern.

It is my belief, from great personal experience, that there is in general a lack of concern and enforcement of public laws with respect to fire safety and prevention. It is also my belief that there exists an unacknowledged effort to cover up the lack of enforcement of those laws that effect these facilities. The resultant losses may be measured in billions of dollars of public and private funds. I implore Congress to consider seriously the need for some form of Federal remedy.

SOCIETY OF FIRE PROTECTION ENGINEERS,
Boston, Mass., August 29, 1977.

HON. BOB ECKHARDT,
Chairman, Subcommittee on Consumer Protection and Finance, House of Representatives, Washington, D.C.

DEAR MR. ECKHARDT: The Executive Committee of the Society of Fire Protection Engineers, concerned as you and so many citizens and organizations are for the safety of life and property from the ravages of unwanted fire, would offer the following comments on H.R. 7684, the "Fire Prevention Study Act of 1977" for inclusion in the record of the Subcommittee hearings.

1. It appears that the motivation for introducing H.R. 7684 was the Beverly Hills Supper Club fire of May 18, 1977. Such unfortunate instances can lead some members of society to over-react in their demand for a legislative panacea for the fire problem in America. It would seem judicious, in this instance, for your subcommittee to maintain an open record and not terminate hearings until such time as the official report(s) of the incident are published. Enforcement of existing codes, expansion of public education and advancement of the technology could prove to be a better investment of taxpayer dollars than a study of fire prevention and control standards.

2. Public Law 93-498, the "Federal Fire Prevention and Control Act of 1974", Section 12, reads, "The Administrator is authorized to review, evaluate, and suggest improvements in State and local fire prevention codes, building codes, and any relevant Federal or private codes and regulations. In evaluating any such code or codes, the Administrator shall consider the human impact of all code requirements, standards, or provisions in terms of comfort and habitability for residents or employees, as well as the fire prevention and control value or potential of each such requirement, standard, or provision".

It seems that the Administrator of the National Fire Prevention and Control Administration already has the authority to undertake such a study. The Administrator and his staff have continually exhibited their competence and dedication to the cause of fire prevention and control. Authority coupled with demonstrated competence should enable the Administrator to determine if and when in the course of attacking the entire fire problem such a study of one particular aspect is appropriate.

We appreciate the opportunity to offer these comments and trust that they will be given active consideration in your deliberations.

Sincerely,

HARRY C. BIGGLESTONE,
President.

NATIONAL FIRE PROTECTION ASSOCIATION,
Washington, D.C., September 23, 1977.

Re: H.R. 7684—Fire Prevention Study Act of 1977.

HON. BOB ECKHARDT,

Chairman, Subcommittee on Consumer Protection, House Commerce Committee, U.S. House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: As agreed during our testimony at the hearing on the above bill on July 29, 1977, the National Fire Protection Association submits the following further comments in respect to H.R. 7684:

1. The terms of reference for the study should be modified to provide for a study of the necessity and feasibility of Federal Government assistance to state and local governments in the application and enforcement of codes and standards related to fire safety. The predominance of reference to possible Federal fire codes in the bill does not appear to be warranted on several counts. These are:

(a) The consistent evidence of both hearings that the problem lies not in the existing codes but rather in the difficulties faced by state and local officials in matters of enforcement and application of fire safety measures.

(b) The overwhelming evidence pointed to the fact that the Beverly Hills fire would not have resulted in the tragic losses had the premises been in compliance with existing national codes as adopted by the State of Kentucky.

(c) Opinions expressed to us by our members, particularly those who are state and local fire officials, that the enforcement of fire codes can only be effectively applied at local levels.

(d) Opinions expressed to us by our members that Federal codes would constitute further abridgement of states' rights.

(e) That the existing national building and fire codes are already developed with the greatest possible expertise and that Federal codewriting would be duplicative and unlikely to produce standards that are more effective than those that exist today, and would be incapable of timely response to technological and regional variations. This is amply illustrated in the case of many Federal regulations where no changes have occurred in many years, despite significant advances in the technology on which the regulations were based and despite corresponding changes in the relevant model standards developed by the consensus standards groups.

(f) The greatest need is for Federal support and assistance to state and local governments.

2. The study conducted by an administrative agency or department cannot be expected to be unbiased if the recommendations it makes might lead to further growth and expansion of that same agency. It would be preferable for the study to be conducted by an impartial body, such as the General Accounting Office, or a special investigative subcommittee of Congress. We urge that this course of action be substituted for the one now proposed in the bill.

We appreciate and share the motivation that led to the bill and the interest shown in what is, in addition to all else, a problem directly involving our constituent members and trust you will take what we feel is a practical and effective approach by reporting out the bill with the modifications suggested.

Yours sincerely,

CHARLES S. MORGAN,
President.

WESTERN UNION MAILGRAM,
Washington D.C., September 23, 1977.

HON. BOB ECKHARDT,

*Chairman, Subcommittee on Consumer Protection,
House Commerce Committee,
U.S. House of Representatives,
Washington D.C.*

The Fire Marshalls Association of North America (FMANA) endorses the concept of studying the problems associated with the enforcement of fire safety codes and standards. This endorsement is provided in the belief that the conclusion reached will reaffirm the paramount superiority of fire safety standardization by consensus processes as the only method consistent with basic American principles.

Concerning suggestions that fire codes be enforced by the Federal Government, the FMANA feels that this type of involvement is unwarranted. FMANA believes, however, that certain types of Federal support programs could be formidable and overwhelmingly in the public interest:

(A) Federal support in the application of uniform State and local fire safety regulations and codes.

(B) Financial assistance to State and local code enforcement authorities for the specific implementation of "A" above.

Further, the FMANA believes that much of the problem encountered in terms of effective code enforcement stems from the relative position of fire safety regulation and enforcement within the various States' political, economic, and social structure. An objective study of the efficacy of fire safety regulation and code enforcement must take these environments into account. The Fire Marshalls Association of North America will be happy to cooperate in an unbiased study in this area.

Sincerely,

HOWARD BOYD, *President,*
Fire Marshalls Association of North America.

[Whereupon, at 3:30 p.m. the subcommittee adjourned.]



