



INDUSTRY MOVES TO WAKE NATION TO THE NEED FOR **SAFETY GLAZING**

*By M. N. Zoella, Chairman,
Consumer Glass Safety Committee*

Progress report shows impressive gains in campaign for safety glazing in hazardous locations, tells who is taking part and where.

M. N. Zoella, market manager of residential construction of PPG Industries' Glass Division, has had considerable experience in the fields of glass research, product development and marketing.

He joined PPG in 1943 as a production control and development engineer at the firm's Creighton, Pa., glass fabrication plant and later transferred to PPG's glass research laboratories in the same capacity. Other glass research posts he has held include head of the window engineering department, coordinator of architectural product

development, assistant manager of programming, and coordinator of new product utilization.

Mr. Zoella moved to PPG's Pittsburgh corporate headquarters in 1963 as a residential construction marketing planner. In 1967, he was appointed market manager of residential construction.

He is chairman of the Consumer Glass Safety Committee and a member of the American Society of Heating and Ventilating Engineers. He holds a bachelor of science degree and a master's degree in education from Duquesne University.



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SAFETY GLAZING

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A nationwide campaign to provide safety glazing requirements for residential, commercial, and public buildings has registered impressive gains in 1970, and a vigorous promotion is planned for the coming year. The campaign is being directed by the Consumer Glass Safety Committee (CGSC) in a cooperative effort by government, safety organizations, labor, and industry to insure that consumer safety is a prime consideration in the choice of glazing material used in defined "hazardous locations."

The CGSC is composed of representatives from 15 sponsoring organizations. These are the U.S. Public Health Service's Bureau of Community Environmental Management (injury control); the Home Conference of the National Safety Council; Flat Glass Marketing Association; National Glass Dealers Association; Architectural Aluminum Manufacturers Association; Glass Tempering Association; PPG Industries, Inc.; ASG Industries, Inc.; Libbey-Owens-Ford Co.; Amerada Glass Co.; Fourco Glass Co.; Rohm and Haas Co.; C-E Glass Co.; International Brotherhood of Painters and Allied Trades, AFL-CIO; and the Sealed Insulating Glass Manufacturers Association.

The CGSC has targeted 17 states for passage of safety glazing legislation in 1971. These are Arkansas, Colorado, Delaware, Illinois, Indiana, Kansas, Massachusetts, Michigan, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Washington, and West Virginia.

The CGSC will make a concerted effort during 1971 to acquaint legislators and administrative officials with the need and to encourage them to enact provisions of a model safety bill into law in the interest of greater consumer safety.

In 1970, safety glazing legislation was enacted in California, Florida, Georgia, Kentucky, and Oregon. A safety glazing law be-

came effective in Maryland in 1969. Connecticut, North Carolina, Ohio, and Indiana have included upgraded safety glazing requirements in their respective mandatory state building codes.

In addition, safety glazing requirements in building codes have been adopted or are under study on the municipal level in a number of cities, including Houston, San Antonio, Tulsa, Phoenix, Charlotte, New York, and New Orleans.

As a major aid in its safety glazing campaign, the CGSC has drafted a model legislative bill containing provisions for safety glazing requirements in specified hazardous locations in residential, commercial, and public buildings. The model bill is intended to assist state legislators in their efforts to enact legislation. It can be introduced for enactment as written or can serve as a guide for legislators in writing the legislation in a specific preferred format.

The legislation is intended to provide the homeowner, his family and guests, and the general public with greater safety through safety glazing requirements for certain applications. Enactment of the proposed safety glazing legislation would eliminate or reduce accidental injuries by requiring use of safety glazing materials—tempered glass, wire glass, laminated glass and rigid plastics—in the defined "hazardous locations."

The "hazardous locations" covered by the bill are framed or unframed glass entrance doors used in commercial and public buildings; installations in residential, commercial, and public buildings such as sliding glass doors, storm doors, shower doors, bathtub enclosures; and fixed glazed panels adjacent to entrance and exit doors, which because of their location present a barrier in the normal path traveled by persons going into or out of these buildings, and may be mistaken for doors.

Accompanying the CGSC's model safety glazing bill is a bulletin defining and clarifying the intent of the legislation and the "words of art" used in the bill.

The committee's model bill, which culminates a decade of effort by government, safety, and industry groups, requires that safety glazing materials meet test requirements

detailed in the American National Standards Institute (ANSI) Standard Z-97.1-1966. This standard was developed by ANSI under the sponsorship of the National Safety Council. The standard is nationally recognized and is referenced in all national model building codes, in existing upgraded state and local building codes, and in the latest revisions of the Federal Housing Administration Minimum Property Standards.

The accompanying CGSC bulletin spells out specific definitions of framed and unframed glass entrance doors as well as fixed glazed panels. A framed glass entrance door is defined as a door used as an entrance or exit of a commercial or public building which contains a framed opening in which glass is installed and occupies 40 percent or more of the total door area.

An unframed glass entrance door is an essentially all-glass door used as an entrance or exit in commercial or public buildings. In such a door, the glass is either entirely unframed or framed on less than four edges.

Fixed glazed panels adjacent to entrance or exit doors are framed glazed units adjoining or in close proximity with transparent or opaque entrance and exit doors. These structures cannot be operated as doors, but because of their design and proximity to doors, may be mistaken for doors. Fixed glazed panels are classified as being in hazardous locations when they are barriers in the normal path of foot travel.

As another part of the campaign to promote safety glazing legislation, CGSC members have appeared before various government and other groups to testify to the need for use of safety glazing materials in "hazardous locations" and to demonstrate the difference between ordinary glass and safety glazing materials.

As a result of CGSC testimony at the glass safety hearings in January, 1969, the National Commission on Product Safety (in its June, 1970, final report to President Nixon and Congress) identified non-safety glazed sliding doors, storm doors, and shower bath enclosures among products considered to present unreasonable hazards to the consumer. *(Text continued on page 32)*

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The NCPS report said "about 100,000 (persons) walked through glass doors last year, probably believing the spaces to be open. If the doors had been safety glazed, most of the serious injuries would not have occurred.

"Although we did not seek specific data on glass storm doors or shower bath panels, we are confident that they too should be governed by safety standards," the NCPS said in its report.

Following the NCPS's 1969 hearing, the Federal Housing Administration (FHA) revised its minimum property standards to require the use of safety glazing material in both one- and two-family dwellings and in multi-family housing. The FHA revisions require safety glazing material in all sliding glass doors, tub enclosures, and shower doors. Safety glazing materials also must be used in storm doors and in fixed panels adjacent to entry doors unless the glazing in such doors is protected by substantial grilles on both sides.

The Architectural Aluminum Manufacturers Association (AAMA) also testified at the NCPS hearing and now enforces a mandatory compliance by its membership to its specification for safety glazing in sliding doors. The AAMA members account for 80 percent of domestic aluminum sliding glass door production. AAMA also has developed safety glazing specifications and a certification program for storm doors.

Recently, the American Medical Association (AMA) urged state medical societies to promote safety glazing legislation and assist in developing educational programs on safety glazing. The recommendations were made in a joint statement by two AMA councils, on occupational health and on environmental and public health, to all state medical societies. The AMA statement expressed concern about the extent of serious injuries resulting from persons walking into non-safety glass in doors and other "hazardous installations."

"From pilot studies made by the Public Health Service and the National Safety Council, it was con-

cluded that these injuries could have been prevented by the use of safety glass," the AMA noted.

The AMA document explained that in accidents ordinary glass shatters, and the splinters can act as knives or daggers, slicing the hands or wrists, or cutting vital organs. The AMA furnished state medical societies with the model safety glazing bill drafted by the CGSC, and suggested that the state societies promote the model bill or similar legislation.

The medical societies were urged to consider joining with state health departments and others to develop informational and educational programs concerning the dangers of non-safety glass in the specified hazardous locations.

Support for the safety glazing movement also has come from lead-

MODEL BILL TO REQUIRE SAFETY GLAZING
IN HAZARDOUS LOCATIONS
(Proposed for Enactment by State Legislatures)

Printer's No.

THE GENERAL ASSEMBLY OF (STATE)

SENATE OR HOUSE BILL

No. _____

Session of 1971

A BILL

1 To protect the consumer and encourage the highest standards of
2 construction safety by requiring the use of safety glazing
3 materials in hazardous locations in residential, commercial
4 or public buildings.

5 BE IT ENACTED BY THE (insert name of legislative body)

6 OF THE STATE OF

7 Section 1. Definitions. As used in this Act:

8 (A) "Safety glazing material" means any glazing material,
9 such as tempered glass, laminated glass, wire glass or rigid
10 plastic, which meets the test requirements of ANSI Standard
11 Z-97.1-1966 and such further requirements as may be adopted by
12 the (insert appropriate state agency) after notice and hearing as
13 required by (State Administrative Procedure Act), and which are
14 so constructed, treated, or combined with other materials as to
15 minimize the likelihood of cutting and piercing injuries resulting
16 from human contact with the glazing material.

ing retail firms. J. C. Penney Company, Inc., is marketing a complete line of storm doors equipped only with tempered safety glass. Robert B. Gill, vice-president, said Penney's has phased out all other types of glass storm doors in the interest of added customer protection.

Mr. Gill said Penney's has launched the program in all of its home improvement outlets and catalog sales. He described the move as a strong step toward increased consumer safety and said it exemplifies Penney's policy of supplying the best products available to consumers.

The total commitment of leaders of the American glazing industry to encouraging the use of safety glazing materials in hazardous locations in homes and office buildings is exemplified by a recent joint state-

(B) "Hazardous locations" means those installations, glazed or to be glazed in commercial and public buildings, known as framed or unframed glass entrance doors; and those installations, glazed or to be glazed in residential buildings and other structures used as dwellings, commercial buildings, and public buildings, known as sliding glass doors, storm doors, shower doors, bathtub enclosures, and fixed glazed panels adjacent to entrance and exit doors which because of their location present a barrier in the normal path traveled by persons going into or out of these buildings, and because of their size and design may be mistaken as means of ingress or egress; and any other installation, glazed or to be glazed, wherein the use of other than safety glazing materials would constitute an unreasonable hazard as the Secretary of (insert appropriate title) may determine after notice and hearings as required by (State Administrative Procedure Act); whether or not the glazing in such doors, panels, enclosures and other installations is transparent.

Section 2. Labeling Required.

(A) Each light of safety glazing material manufactured, distributed, imported, or sold for use in hazardous locations or installed in such a location within the State of _____ shall be permanently labeled by such means as etching, sandblasting, firing of ceramic material on the safety glazing material, or by other suitable means. The label shall identify the labeler, whether manufacturer, fabricator or installer, and the nominal thickness and the type of safety glazing material and the fact that said material meets the test requirements of ANSI Standard Z-97.1-1966 and

such further requirements as may be adopted by the (insert appropriate state agency).

The label must be legible and visible after installation.

(B) Such safety glazing labeling shall not be used on other than safety glazing materials.

Section 3. Safety Glazing Materials Required. It shall be unlawful within the State of _____ to knowingly sell, fabricate, assemble, glaze, install, consent or cause to be installed glazing materials other than safety glazing materials in, or for use in, any hazardous location.

Section 4. Employees Not Covered. No liability under this Act shall be created as to workmen who are employees of a contractor, subcontractor, or other employer responsible for compliance with this Act.

Section 5. Penalty. Whoever violates the provisions of this Act shall be guilty of a misdemeanor and upon conviction thereof, shall be sentenced to pay a fine of not less than \$500 or more than \$10,000, or to undergo imprisonment of not more than one year, or both.

Section 6. Local Ordinances. This Act shall supersede any local, municipal or county ordinance or parts thereof relating to the subject matter hereof.

Section 7. Effective Date.

This Act shall take effect _____, 19_____.

ment. The statement was signed by PPG Industries, Inc., the Flat Glass Marketing Association, National Glass Dealers Association, and International Brotherhood of Painters and Allied Trades, AFL-CIO. It said:

"We, the representatives of those who sell and install glass, recognize the importance of proper use and installation of glass in assuring public safety in homes and commercial buildings. Use of improper material and inadequate glazing practices produce public hazards that have, in some cases, resulted in tragic accidents.

"Efforts have been made in our industry to inform the public, those engaged in building design, and those who sell and install glass in the use of safety glazing materials. We will support programs to fur-

ther these efforts.

"Efforts have been made in our industry to encourage state and local agencies to adopt uniform standards requiring use of safety glass and proper installation of glass in building areas presenting a high risk of accident. We will support programs to further these efforts.

"We also support vigorous enforcement of state laws and local ordinances prescribing safety glazing so that the public may be afforded maximum protection from unnecessary hazards created by improper use and installation of glazing materials."

The CGSC is confident that its 1971 campaign will increase further the number of citizens throughout the country protected by the safety glazing requirements. □



The Consumer Glass Safety Committee presented Rep. Mike Cullen (right), D-Calif., an award to commemorate passage of safety glazing legislation in California. Rep. Cullen was the principal sponsor of the bill in California.