

Twentieth International Conference on Fire Safety

January 9 to 13, 1995

Clarion Hotel
San Francisco International Airport
Millbrae, California

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ICFS

Helping to Make The World Safe for Its People

PROGRAM

Registration at 7:30 a.m. each morning
Introduction of participants at 8:15 a.m. each morning
Sessions start at 8:30 a.m. each morning

Monday, January 9, 1995

Session on Fire Safety of Buildings and Contents

Chairman: Gordon H. Damant, Inter-City Testing and Consulting Corporation of California

Cigarette Ignition of Upholstered Furniture

Gordon H. Damant, Inter-City Testing and Consulting Corporation of California

The Role of the Consumer Product Safety Commission in Stimulating Development of Safer Products

James F. Hoebel, Margaret L. Neily, Dale R. Ray, and Linda E. Smith,
Consumer Product Safety Commission

Update on Furniture Flammability

Mark S. Nemschoff, Nemschoff Chairs Inc.

The Lower Level of Detection in the ASTM Burn Room

King-Mon Tu and Alan Aaronson, Akzo Nobel Chemicals Inc.

Hot Release Performance of Chair Mockups in Cal 133 Testing

Thomas J. Ohlemiller, National Institute of Standards and Technology

Global Overview of the Flame Retardant Chemical Industry

Joseph Green, FMC Corporation

From Greek Fire to Firestorm V: A History of the Fire Services Quest for Knowledge

Ron Coleman, California State Fire Marshal

Spontaneous Combustion of Linseed Oil

David Howitt, University of California, Davis

How to Prevent Flashover Fires due to Furnishings or Contents of a Room

Marcelo M. Hirschler, Safety Engineering Laboratories

Fire Safety in Storage and Handling of Flammable and Combustible Liquids

Rick Mulhaupt, NFPA Research Foundation

Correlation of Cal 133 with Cone Calorimeter

Herman H. Forsten, E. I. du Pont de Nemours and Company

Combustion Explosions Involving Household Aerosol Products

John De Haan, California Department of Justice

Additional papers

Tuesday, January 10, 1995

Session on Fire Safety of Buildings and Contents (continued)

Chairman: Gordon H. Damant, Inter-City Testing and Consulting Corporation of California

Textile Industry Flammability Activities

John W. Michener, Milliken Research

title to be given

Said Nurbakhsh, California Bureau of Home Furnishings and Thermal
Insulation; Gordon H. Damant, Inter-City Testing and Consulting

Unusual Fire Hazards in Structures: Flammable, Water-Reactive Metals

Alexander J. Patton, University of Rhode Island

Additional papers

Session on Fire Safety in Transportation

Chairman: Richard G. Hill, Federal Aviation Administration

Update on the FAA Halon Replacement Program

Constantine P. Sarkos, Federal Aviation Administration

Fire Resistant Composites for Navy Applications

Nan Sorathia, Naval Surface Warfare Center

Development of FSG Model to Composite Materials

Peter Wu and Archibald Tewarson, Factory Mutual Research Corporation

Calibration of Gardon-Gauge Type Heat Flux Transducers

Richard G. Hill, Federal Aviation Administration

Halon Replacements for Shipboard Machinery Spaces

Ronald Sheinson, Naval Research Laboratory

Fire Resistant Thermoset Polymers for Aircraft Interiors

Richard Lyon, Federal Aviation Administration

Review of Fire Safety in Spacecraft

Robert Friedman, NASA Lewis Research Center
Emergency Aircraft Crash Response and Fire Management
N. Dale Dunham, San Francisco International Airport
Additional papers

Wednesday, January 11, 1995

Session on Fire Safety Testing

Chairman: Gordon L. Nelson, Florida Institute of Technology

Radiant Furnace Toxicity Testing

Howard W. Stacy, Southwest Research Institute

Comparison of Smoke Density Measurements

Thomas W. Fritz, Armstrong World Industries

Jet Fire Testing with the SINTEF Method for the Offshore Oil Industry

Richard Licht, 3M Company

Continuing Problems in Clothing Flammability

Howard L. Needles, University of California, Davis

Current Update on Fire Litigation

James L. Fetterly, Fetterly & Gordon

title to be given

James A. White and Joe Urbas, Western Fire Center

Additional papers

Session on Materials for Increased Fire Safety

Chairman: Marcelo M. Hirschler, Safety Engineering Laboratories

Analysis of Heat Release and Other Data from a Series of Plastic Materials Tested in the Cone Calorimeter

Marcelo M. Hirschler, Safety Engineering Laboratories

Use of the Cone Calorimeter as a Probe to Flame Retardant Mechanisms

Christopher J. Nalepa, Albemarle

Fire Behavior of Silicone Materials

William C. Page, Dow Corning Corporation

Fire Resistance and Sound Transmission Class Ratings for Wood Frame Walls

Leslie W. Richardson, Forintek Canada; Rodney A. McPhee, Canadian Wood
Council

Molybdenum Compounds as Smoke Suppressants

William Kennelly, Cyprus Amax

Design and Operation of an Oxygen Consumption Reactor

David S. Morrison, Advanced Systems Technology; Richard C. Corlett,
University of Washington

Additional papers

Thursday, January 12, 1995

Session on Materials for Increased Fire Safety (continued)

Chairman: Marcelo M. Hirschler, Safety Engineering Laboratories

Autoignition Temperature of Carbon-Filled Fluoroelastomers at Elevated Oxygen Pressure

Fu-Yu Hsieh, Coleman Bryan, and Michael Pedley, Lockheed

The Use of Chlorine/Bromine Synergism to Flame Retard Plastics

Ronald L. Markezich and Rudy Mundhenke, Occidental Chemical

Wire and Cable Combustion Efficiency Determinations Using Calorimetry

James R. Hoover, Loren M. Caudill, and James T. Walnock,

E. I. du Pont de Nemours and Company

New Organophosphorus Textile Flame Retardants

Mark Huggard, Albright & Wilson

Ignitability Analysis of Siding Materials Using Modified Protocol for LIFT Apparatus

Mark A. Dietsberger, USDA Forest Products Laboratory

Recent Advances in the Use of Zinc Borates as Fire Retardants

Kelvin K. Shen, U.S. Borax Inc.

Corrosivity of Combustion Products: Various Techniques

Loren M. Caudill, E. I. du Pont de Nemours and Company

Phosphorus-Bromine Flame Retardant Synergy in Engineering Thermoplastics

Joseph Green, FMC Corporation

Continued on other side

This program is subject to change.

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REGISTRATION FORM
TWENTIETH INTERNATIONAL CONFERENCE ON FIRE SAFETY

Name _____
Organization _____ Home Address _____
Business Address _____
Business Telephone _____ Home Telephone _____

Please fill in both addresses and telephone numbers.

REGISTRATION FEE: \$ 420 for entire Conference if received before December 9, 1994
 \$ 260 for one-day registration if received before December 9, 1994
 \$ 450 for entire Conference if received after December 9, 1994
 \$ 290 for one-day registration if received after December 9, 1994

Checks should be made payable to PRODUCT SAFETY CORPORATION.
Mail registration form and fee to:

Product Safety Corporation
P.O. Box 2338
Sunnyvale, California 94087

DAYS YOU PLAN TO ATTEND:

Mon, Jan. 9
 Tue., Jan. 10
 Wed., Jan. 11
 Thu., Jan. 12
 Fri., Jan. 13

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PROGRAM (continued from other side)

Thursday, January 13, 1994 (continued)

Session on Materials for Increased Fire Safety (continued)

Chairman: Marcelo M. Hirschler, Safety Engineering Laboratories

On Ignition and Flame Spread

A. Carlos Fernandez-Pello, University of California, Berkeley

Advances in Synergist Systems for Lower Cost Flame Retarded Products

James D. Innes, Flame Retardants Associates

title to be given

Philip M. Cook, Polymer Additives Group, R. J. Marshall

Additional papers

Friday, January 13, 1995

Panel Discussions

Possible Site Visits (listed in order of increasing distance, participants provide own transportation or carpool)

San Francisco Municipal Railway: light rail facility

University of California, Berkeley: Fire Research Station in Richmond

Bay Area Rapid Transit (BART): transit car facility in Hayward

National Aeronautics and Space Administration, Ames Research Center

Moffett Field (30 days advance notice required for non-U.S. citizens)

Underwriters Laboratories, Santa Clara

California Bureau of Home Furnishings and Thermal Insulation

North Highlands (on the way to Reno and Lake Tahoe)

California Coast Tour and Group Discussions (participants provide own transportation or carpool; spouse and family welcome): Pacifica, Half Moon Bay, Santa Cruz, Moss Landing, Monterey, Carmel, Big Sur coast (only as far as Bixby Creek bridge, on the way to Hearst Castle at San Simeon); participants can join or leave group at any point

This program is subject to change. Inquiries should be directed to the Conference Director, Dr. Carlos J. Hilado, Product Safety Corporation, P.O. Box 2338, Sunnyvale, California 94087, telephone (408) 732-5325.

GENERAL INFORMATION

The International Conference on Fire Safety is designed to present a wide range of subjects of interest to fire safety, and to provide an opportunity for persons with different skills, concerns, and viewpoints to discuss problems and possible solutions, in both open discussions and personal contacts, in an atmosphere of cordiality and cooperation. The greatest benefits in terms of useful information, perspectives, and personal contacts will be obtained by attending as much of the Conference as possible, rather than only selected Sessions or selected papers. The Conference was started in 1976 by Dr. Carlos J. Hilado, with NASA support for its first four years, and has been continued by him through Product Safety Corporation. It is supported entirely by Conference registration fees and Proceedings payments. Its independence and informality have made it unique and an annual tradition. This well-attended Conference is held in January of each year in the San Francisco Bay Area. The 21st Conference will be held on January 8 to 12, 1996, in the Clarion Hotel.

LOCATION The Clarion Hotel
San Francisco International Airport
401 East Millbrae Avenue
Millbrae, California 94030
Telephone (415) 692-6363

This location is convenient for air travel and for combining the Conference with other business in California and on the West Coast. Rooms have been set aside for Conference registrants at \$85 per day for singles, doubles, or twins, \$95 for triples, \$105 for quads, \$145 for executive kings, and \$200 per day for suites. Specify this Conference when making reservations in order to obtain these rates. It is our understanding that these rates include complimentary buffet breakfast from 6:00 to 9:00 a.m. for registered guests only. Room reservations are the responsibility of individual registrants and should be made directly with the hotel before December 1994. After that date reservations will be accepted only on a space-available basis. You may wish to extend your stay through the weekend before and after the Conference to enjoy sightseeing and activities in northern California. A 24-hour courtesy van will take guests to the airport to connect with limousines to downtown San Francisco.

REGISTRATION FEE

\$420 for entire Conference if received before Dec. 9, 1994
\$260 for one-day registration if received before Dec. 9, 1994
\$450 for entire Conference if received after Dec. 9, 1994
\$290 for one-day registration if received after Dec. 9, 1994

Conference Proceedings, prepared from manuscripts submitted by speakers, are mailed after the Conference to those who pay the registration fee for the entire Conference. Checks should be made payable to PRODUCT SAFETY CORPORATION and mailed with the registration form to:

Product Safety Corporation
P.O. Box 2338
Sunnyvale, California 94087

There will be no refunds for no-shows or for cancellations received after December 15, 1994. However, another person from the same organization can be substituted with suitable written authorization.

Registrants desiring additional information can contact the Conference Director, Dr. Carlos J. Hilado, at the address above and at (408) 732-5325 as early as 8 a.m. Eastern time on weekdays and weekends. Dr. Hilado can be contacted in Sissonville, West Virginia at (304) 984-2994, between October 5 and November 2, and during part of December.

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