



# SFPE Bulletin

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*30th Year of Service*

JULY, 1980

## Pearsall is Man of the Year

Duane D. Pearsall, President, Small Business Development Corporation, Littleton, Colorado and former President of Statitrol was honored as 1980 SFPE Fire Protection Man of the Year at the Society's Annual Meeting in May. He is credited with conceiving, developing and bringing to the market place, the low cost residential smoke detector.

In 1970, when he was President of Statitrol and the company numbered about 25 employees, Duane

*(48 years old)*



Duane Pearsall, Fire Protection Man of the Year receives award from President Jack Bono.

became angry about the continuing loss of life in one- and two-family residences. Charging his research compatriot to strip their commercial detection unit down to its bare essentials, he in turn developed the package in which to place the components. Tooling was developed and the product was first shown to key individuals at the May, 1971 NFPA San Francisco Annual Meeting.

Working with many people in fire protection — fire chiefs, members of the then National Commission on Fire Prevention and Control, NFPA and NEMA committee members, building code writers and testing laboratory officials — he effected, in part many of the following changes:

- NFPA Standard No. 74 set criteria for the "monitored battery"

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## Special Routing

Let other fire protection engineers become acquainted with SFPE. Route this issue to others in your organization.

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For your convenience this issue also includes a membership application form. See page 13.

## Annual Meeting and Seminars — 1980

"Forward With The Basics" was the theme as 250 attendees gathered in the Sheraton-Boston Hotel on Tuesday morning, May 20 for the first of two fire protection engineering seminars sponsored by SFPE during NFPA/SFPE Annual Meeting Week.

Lead-off speaker was Robert J. Gray, P.E., Vice President Marketing, Grinnell Fire Protection Systems Company, Inc., who discussed "Low Cost Residential Sprinkler Systems — A New Technology". The second presentation featured Paul R. DeCicco, P.E., Professor of Civil Engineering, Polytechnic Institute of New York and John M. Foehl, P.E., Manager, Architectural and Building Products, The Copper Development Association on the subject "Fire Hardening of Old Residential Buildings in High-Risk Urban Areas". J. Richard Brown, P.E., Senior Research Engineer, Factory Mutual Research Corporation followed with "Fire Tests to Compare Sprinkler Demands of Wet-Pipe and Dry-Pipe

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## Pearsall . . . (cont'd)

- FM Laboratories established a category to test home firesafety products
- UL established a procedure for test of "monitored battery" powered detectors
- National Commission recommended that low cost smoke detectors be used in one- and two-family residences
- Building codes were revised to encourage the use of residential detectors
- NBS created a section to study the devices

Though holding the fundamental patent on the use of monitored batteries, he simply asked for a token license fee from those in the industry who wished to compete.

In the course of the 1970s, his company grew to over 500 employees in two plants. He was named Small Businessman of the Year by President Gerald Ford in 1976.

Now, ten years after the launching of the idea of a low-cost residential smoke detector, it is an easy retail purchase available to all and is credited by those in some quarters with saving over 1,000 lives annually.

The Fire Protection Man/Woman of the Year award was created to recognize significant achievement in fire protection. Nominations are made by the individual chapters of SFPE with the final selection being made by vote of the Society's Board of Directors. The award criteria are . . .

- Individual must have made an outstanding contribution to fire protection within recent years
- The contribution must be broad in scope, at least of national importance
- The contribution must have apparent lasting effects
- The individual must come from beyond SFPE

The award does not have to be presented each year. Previous recipients include . . .

- 1973 — Arthur Sampson, Administrator, General Services Administration, Washington, D.C.
- 1974 — Richard E. Bland, Chairman, National Commission on Fire Prevention and Control, State College, Pennsylvania
- 1975 — Anne W. Phillips, M.D., Founder and Executive Director, The National Smoke, Fire and Burn Institute, Boston, Massachusetts
- 1976 — Dick Van Dyke, Movie and Television Star, Hollywood, California
- 1977 — Dr. John L. Bryan, Professor and Chairman, Department of Fire Protection Engineering, University of Maryland, College Park, Maryland

## RECENT PUBLICATIONS OF NOTE

### Cause of Death in Fire Victims

From the "BRE News," Autumn 1979 issue published by Building Research Establishment, Department of the Environment, United Kingdom.

For the first time in the UK a full and detailed study has been carried out of the cause of death in fire victims in a large and reasonably representative area of the country.\* The work was done under contract to FRS by Professor W. A. Harland of the Department of Forensic Medicine of the University of Glasgow, studying victims of fires in the Strathclyde area of Scotland. It showed that carbon monoxide is almost certainly the cause of death in 50 percent of cases, but when other causes such as burns or heart disease are eliminated, a significant proportion remains unexplained, and work is continuing to try to resolve this problem. High levels of alcohol were found in the blood of many of the fire victims. This may indicate that these victims were partially incapacitated, mentally or physically, before fire effects became important. However, there is no evidence from the study that carbon monoxide and alcohol are synergistic in the toxicological sense.

The proportion of fire deaths caused by smoke and gas inhalation has increased over recent years, and now amounts to more than half of all fatalities. There is concern that the increasing use of synthetic polymer

materials may have made a significant contribution to this increase. At FRS considerable effort is being directed to research on the fire atmosphere, involving studies of the thermal decomposition and combustion of polymers and other materials in both laboratory and full-scale fires.

The contract placed with the University of Glasgow complemented this work by providing precise information about the role of smoke and toxic gases in causing deaths in real fire situations. Professor Harland carried out detailed pathological studies of fire victims to determine the concentrations of toxic substances in their blood and tissues, particularly those arising from the inhalation of fire gases, but including other materials such as alcohol or other drugs which might have impaired ability to escape from a fire.

The Strathclyde area covers over 5000 square miles with 2.5 million people, about half the population of Scotland. Between July 1976 and April 1978, a total of 110 fire deaths were studied, 84 percent of all fire deaths in the region. Three basic methods were used: post mortems with pathological and histopathological examinations to establish the cause of death, taking into account all possible contributory causes including pre-existing diseases; toxicology, to detect and quantify possible toxic substances arising from the fire, and also alcohol and other drugs; and fire scene investiga-

### PUBLISHER'S NOTES

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